

**AGENDA
REGULAR MEETING
CITY OF BANNING
BANNING, CALIFORNIA**

October 27, 2015
5:00 p.m.

Banning Civic Center
Council Chambers
99 E. Ramsey St.

Per City Council Resolution No. 2010-38 matters taken up by the Council before 9:00 p.m. may be concluded, but no new matters shall be taken up after 9:00 p.m. except upon a unanimous vote of the council members present and voting, but such extension shall only be valid for one hour and each hour thereafter shall require a renewed action for the meeting to continue.

I. CALL TO ORDER

- Invocation – Merle Malland, Police Chaplain
- Pledge of Allegiance
- Roll Call – Councilmembers Miller, Moyer, Peterson, Welch, Mayor Franklin

II. REPORT ON CLOSED SESSION

III. PUBLIC COMMENTS/CORRESPONDENCE/PRESENTATIONS

PUBLIC COMMENTS – On Items Not on the Agenda

A five-minute limitation shall apply to each member of the public who wishes to address the Mayor and Council on a matter not on the agenda. A thirty-minute time limit is placed on this section. No member of the public shall be permitted to "share" his/her five minutes with any other member of the public. (Usually, any items received under this heading are referred to staff or future study, research, completion and/or future Council Action.) (See last page. PLEASE STATE YOUR NAME AND ADDRESS FOR THE RECORD.

CORRESPONDENCE: Items received under this category may be received and filed or referred to staff for future research or a future agenda.

PRESENTATIONS

1. Introduction of New Employee – Michael Nottingham (ORAL)

*The City of Banning promotes and supports a high quality of life that ensures
a safe and friendly environment, fosters new opportunities and provides
responsive, fair treatment to all and is the pride of its citizens.*

APPOINTMENTS:

1. Acting City Manager: Acting Manager Appointment & Termination of Agreement with MuniTemps
Staff Report 1
- Recommendations: **That the City Council: 1) Terminate the City's current contract with MuniTemps by providing written notice to MuniTemps of such termination pursuant to the provisions of the City current contract with MuniTemps; and 2) to appoint internally a replacement to temporarily serve as City Manager.**

IV. CONSENT ITEMS

(The following items have been recommended for approval and will be acted upon simultaneously, unless a member of the City Council wishes to remove an item for separate consideration.)

Motion: That the City Council approve Consent Item 1 through 3

Items to be pulled _____, _____, _____ for discussion.

(Resolutions require a recorded majority vote of the total membership of the City Council)

1. Approval of Minutes – Special Meeting – 10/13/15 *(Closed Session)* 9
2. Approval of Minutes – Regular Meeting – 10/13/15 13
3. Report of Investments for August 2015 53

- Open for Public Comments
- Make Motion

V. REPORTS OF OFFICERS

1. Additional Documentation Requested at the October 13, 2015 City Council Meeting Regarding an Amendment to the Government Staffing Services, Inc. Contract.
Staff Report 61
- Recommendation: **That the Council receive and file the attached documentation relating to the October 13, 2015 request for an amendment to the Government Staffing Services, Inc. contract.**
2. Sex Offenders and Child Offenders Update
Staff Report 179
 3. Resolution No. 2015-92, Approving an Amendment to the Professional Services Agreement with Charles Abbott Associates, Inc. to include Engineering Services.
Staff Report 181
- Recommendations: **That the City Council: 1) adopt Resolution No. 2015-92, Approving an Amendment to the Professional Services Agreement with**

Charles Abbott Associates, Inc. of Mission Viejo, California, to include Engineering Services in the amount of \$125,000.00 for Fiscal Year 2015/2016 with the option to renew for three additional years; 2) Authorizing the Administrative Services Director to make necessary budget adjustments and appropriations and transfers related to the agreement; and 3) Authorizing the Interim City Manager to execute the Professional Services Agreement with Charles Abbott Associates, Inc. for Fiscal Year 2015-2016 with the option to renew for three additional years.

RECESS REGULAR CITY COUNCIL MEETING AND CALL TO ORDER A SCHEDULED MEETING OF THE BANNING UTILITY AUTHORITY.

SCHEDULED MEETINGS

VI. BANNING UTILITY AUTHORITY (BUA)

Call to Order: Chairperson Deborah Franklin

Roll Call: Boardmembers Miller, Moyer, Peterson, Welch, Chairperson Franklin

REPORTS OF OFFICERS

1. Resolution No. 2015-14 UA, Approval to Join the Santa Ana Watershed Project Authority Basin Monitoring Program Task Force.
Staff Report. 223
Recommendations: **That the Board: 1) adopt Resolution No. 2015-14 UA, Approving the City to Join the Santa Ana Watershed Project Authority Basin Monitoring Program Task Force (“BMPTF”) and allowing the Mayor to execute Amendment No. 2 to the BMPTF Agreement; and 2) Authorizing the Administrative Services Director to make the necessary Budget adjustments and appropriations related to Resolution No. 2015-14 UA.**
2. Resolution No. 2015-15 UA, Awarding a Professional Services Agreement for the 2015 Urban Water Management Plan Update to Krieger & Stewart Engineering Consultants.
Staff Report. 339
Recommendations: **That the Board: 1) adopt Resolution No. 2015-15 UA, Awarding a Professional Services Agreement for the 2015 Urban Water Management Plan Update for the City’s Water Utility to Krieger & Stewart of Riverside, CA in the amount of “not to exceed” \$73,000.00; 2) Authorizing the Administrative Services Director to make necessary budget adjustments and appropriations and transfers related to the project; and 3) Authorizing the Interim City Manager to execute the Professional Services Agreement with Krieger & Stewart Engineering and Consultants.**
3. Resolution No. 2015-16 UA, Awarding a Professional Services Agreement for the Chromium-6 Treatment and Compliance Study to Hazen and Sawyer.
Staff Report. 583

Recommendations: **That the Board: 1) adopt Resolution No. 2015-16 UA, Awarding a Professional Services Agreement for the Chromium-6 Treatment and Compliance Study to with Hazen and Sawyer of Palm Desert, CA in the amount of \$89,630.00; and 2) Authorizing the Administrative Services Director to make necessary budget adjustments and appropriations and transfers related to the project; and 3) Authorizing the Interim City Manager to execute the Professional Services Agreement with Hazen and Sawyer.**

4. Resolution No. 2015-17 UA, Approving an Amendment to the Professional Services Agreement with E. S. Babcock & Sons, Inc. of Riverside, California. Staff Report. 813
Recommendation: That the Board adopt Resolution No. 2015-17UA, Approving an Amendment to the Professional Services Agreement with E.S. Babcock & Sons, Inc. ("E.S. Babcock") of Riverside, CA in the amount not-to-exceed \$65,000.00 for analytical testing services.

BUA ADJOURNMENT - Next regular meeting: Tuesday, November 10, 2015 at 5:00 p.m., Banning City Hall Council Chambers.

BANNING FINANCING AUTHORITY (BFA) – no meeting.

RECONVENE regular City Council Meeting.

VII. ANNOUNCEMENTS/REPORTS *(Upcoming Events/Other Items if any)*

- City Council
- City Committee Reports
- Report by City Attorney
- Report by City Manager
 - Signing Authority Report

VIII. ITEMS FOR FUTURE AGENDAS

New Items –

Pending Items – City Council

1. Discussion regarding City's ordinance dealing with sex offenders and child offenders. (10/27/15)
2. Discussion of vacant properties and on Ramsey Street where people are discarding furniture.
3. Report on Banning Chamber of Commerce Utility Bill Issue
4. Workshop on legal issues (whistleblowers, harassment, personnel issues, consent calendar policy, more interaction with public, form of minutes,).
5. Attorney General Opinion re. Developer Impact Fees collected by hospital or other agencies.
6. Collection of Judgement re. Jim Smith

7. Discussion re. Time of City Council Meetings
8. Safe Walkways for student from the schools and signage.
9. Housing Element (10/27/15)

(Note: Dates attached to pending items are the dates anticipated when it will be on an agenda. The item(s) will be removed when completed.)

IX. ADJOURNMENT

Pursuant to amended Government Code Section 54957.5(b) staff reports and other public records related to open session agenda items are available at City Hall, 99 E. Ramsey St., at the office of the City Clerk during regular business hours, Monday through Friday, 8 a.m. to 5 p.m.

NOTICE: Any member of the public may address this meeting of the Mayor and Council on any item appearing on the agenda by approaching the microphone in the Council Chambers and asking to be recognized, either before the item about which the member desires to speak is called, or at any time during consideration of the item. A five-minute limitation shall apply to each member of the public, unless such time is extended by the Mayor. No member of the public shall be permitted to “share” his/her five minutes with any other member of the public.

Any member of the public may address this meeting of the Mayor and Council on any item which does not appear on the agenda, but is of interest to the general public and is an item upon which the Mayor and Council may act. A five-minute limitation shall apply to each member of the public, unless such time is extended by the Mayor. No member of the public shall be permitted to “share” his/her five minutes with any other member of the public. The Mayor and Council will in most instances refer items of discussion which do not appear on the agenda to staff for appropriate action or direct that the item be placed on a future agenda of the Mayor and Council. However, no other action shall be taken, nor discussion held by the Mayor and Council on any item which does not appear on the agenda, unless the action is otherwise authorized in accordance with the provisions of subdivision (b) of Section 54954.2 of the Government Code.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk's Office (951) 922-3102. **Notification 48 hours prior to the meeting** will enable the City to make reasonable arrangements to ensure accessibility to this meeting. [28 CFR 35.02-35.104 ADA Title II]

CITY COUNCIL AGENDA

DATE: October 27, 2015

TO: Honorable Mayor & Banning City Council

FROM: Lona Laymon, City Attorney

SUBJECT: Acting City Manager: Acting Manager Appointment & Termination of Agreement with MuniTemps.

SUMMARY:

On October 20, 2015, Mr. Dean Martin voluntarily resigned from his position of Interim City Manager. As there are only a few weeks (likely, mid-November) until the expected hiring of a new full-time City Manager, there is little or no time to accommodate another temp-hire from MuniTemps. Therefore, it is proposed that the City Council end its contract with MuniTemps and hire internally for an Acting City Manager to cover the Manager position over the next few weeks until such time that a new full-time Manager will be hired.

RECOMMENDATION:

Recommended Council actions are:

1. To terminate the City's current contract with MuniTemps by providing written notice to MuniTemps of such termination pursuant to the provisions of the City's current contract with MuniTemps.
2. To appoint internally a replacement to temporarily serve as City Manager.

BACKGROUND:

In May 2015, the City entered into a contract with MuniTemps for the temporary filling of an Interim City Manager position (pending the Council's appointment of a new full-time Manager). That Agreement is attached hereto as Attachment "A". Paragraph 24 of the City's Agreement with MuniTemps provides that it "may be terminated by either party upon 15 days written notice to the other party." Additionally, paragraph 21 provides that "Any notice or other communication will be deemed to be properly given only when sent via the United States Postal Service or a nationally recognized courier, addressed as shown" on the Agreement.

Given that there are only a few weeks (likely, mid-November) until the expected hiring of a new full-time City Manager, there is little or no time to accommodate another temp-hire from MuniTemps. Facilitating another MuniTemps hire would take at least 2 to 3 weeks, after accounting for the time needed for interviews and contract

negotiations. We therefore recommend an internal hire for the next few weeks to occupy the City Manager position until it is otherwise filled by a new Manager.

Because Mr. Martin resigned on October 20, 2015, the City will only have to pay MuniTemps for his hours to that resignation date, inclusive of any additional costs or fees (such as those fees related to any executive search services that were provided by MuniTemps). Our understanding is that "additional services" beyond Mr. Martin's services, were not utilized by the City; therefore there should be no further costs to the City for MuniTemps' services as of October 20, 2015. Paragraph 3 of the contract provides that the City "will pay [MuniTemps] for its performance at the rates set forth on Exhibit A and will also pay any additional costs or fees set forth in this Agreement." Attachment "A" provides that the billable rate per hour is \$96.15.

FISCAL DATA: A potential cost savings is almost certain, the amount of which will depend upon who is selected as Acting City Manager. The Acting appointee would be compensated for working a hirer classification.

SUBMITTED BY:



Lona Laymon
City Attorney

ATTACHMENTS

- A. 2015 MuniTemps Contract with City of Banning

ATTACHMENT “A”



Municipal Staffing Agreement

GOVERNMENT STAFFING SERVICES, INC., dba **MuniTemps**, with its Corporate Mailing Address at **MuniTemps Corporate Lockbox, PO Box 718, Imperial Beach, CA 91933** ("STAFFING FIRM"), and the **CITY OF BANNING**, with its principal municipal office located at **99 East Ramsey Street, Banning, CA 92220** ("CITY") agree to the terms and conditions set forth in this Municipal Staffing Agreement (the "Agreement").

STAFFING FIRM's Duties and Responsibilities

1. STAFFING FIRM will:

- a. Recruit, screen, interview, and assign its employee perform the type of work described on Exhibit A at locations specified on Exhibit A;
- b. Pay Assigned Employees' wages and provide their FIRM offers to them;
- c. Pay, withhold, and transmit payroll taxes; provide unemployment insurance and workers' compensation benefits; and handle unemployment and workers' compensation claims involving Assigned Employees;

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CITY's Duties and Responsibilities

2. CITY will:

- a. Properly supervise Assigned Employees performing its work and be responsible for its business operations, products, services, and intellectual property;
- b. Properly supervise, control, and safeguard its premises, processes, or systems, and not permit STAFFING FIRM employees to operate any vehicle or mobile equipment (unless authorized under section 2.f. below), or entrust them with unattended premises, cash, checks, keys, credit cards, merchandise, confidential or trade secret information, negotiable instruments, or other valuables without STAFFING FIRM's express prior written approval or as strictly required by the job description provided to STAFFING FIRM;
- c. Provide Assigned Employees with a safe work site and provide appropriate safety information, training, and safety equipment with respect to any hazardous substances or conditions to which they may be exposed at the work site;
- d. Not change Assigned Employees' job duties without STAFFING FIRM's express prior written approval; and
- e. Exclude Assigned Employees from CITY's benefit plans, policies, and practices, and not make any offer or promise relating to Assigned Employees' compensation or benefits.

- f. CITY is authorized to direct STAFFING FIRM's employees to drive CITY vehicles and equipment if CITY assumes liability for STAFFING FIRM's employees under CITY's auto insurance policy and names STAFFING FIRM as "additionally insured".

Payment Terms, Bill Rates, and Fees

3. CITY will pay STAFFING FIRM for its performance at the rates set forth on Exhibit A and will also pay any additional costs or fees set forth in this Agreement. STAFFING FIRM will invoice CITY for services provided under this Agreement on a Semi-Monthly basis. Payment is due on receipt of invoice. Invoices will be supported by the pertinent time sheets or other agreed system for documenting time worked by the Assigned Employees. CITY's signature or other agreed method of approval of the work time submitted for Assigned Employees certifies that the documented hours are correct and authorizes STAFFING FIRM to bill CITY for those hours. If a portion of any invoice is disputed, CITY will pay the undisputed portion.
4. STAFFING FIRM shall email invoices and supporting timesheets directly to the CITY's Accounts Payable office with a copy sent to any designated Department of the CITY.
5. STAFFING FIRM may assign two classes of Employees at CITY: (1) "Executive" Employees are presumed to be exempt from laws requiring premium pay for overtime, holiday work, or weekend work. These Employees are assigned on a fixed monthly salary contract which will be paid and pro rated on a bi-weekly pay cycle. When assigned Employee completes project at CITY, CITY will be required to pay the pro rated amount of the monthly salary contract agreed to in Exhibit A as of the full week ending last day worked at the CITY. (2) "Non-Executive" Employees are presumed to be nonexempt from laws requiring premium pay for overtime, holiday work, or weekend work. STAFFING FIRM will charge CITY special rates for premium work time only when an Assigned Employee's work on assignment to CITY, viewed by itself, would legally require premium pay and CITY has authorized, directed, or allowed the Assigned Employee to work such premium work time. CITY's special billing rate for premium hours will be the same multiple of the regular billing rate as STAFFING FIRM is required to apply to the Assigned Employee's regular pay rate. (For example, when federal law requires 150% of pay for work exceeding 40 hours in a week, CITY will be billed at 150% of the regular bill rate.)
6. STAFFING FIRM may also provide "direct hire" (executive search) services if requested by the CITY. The direct hire fee is \$10,000 for positions with annual salary "less than" \$100,000 and \$15,000 for positions with annually salary "greater than" \$100,000. A separate Exhibit "A" would be provided for any direct hire services requested by CITY.

Confidential Information

7. Both parties may receive information that is proprietary to or confidential to the other party or its affiliated companies and their CITYs. Both parties agree to hold such information in strict confidence and not to disclose such information to third parties or to use such information for any purpose whatsoever other than performing under this Agreement or as required by law. No knowledge, possession, or use of CITY's confidential information will be imputed to STAFFING FIRM as a result of Assigned Employees' access to such information.

Cooperation

8. The parties agree to cooperate fully and to provide assistance to the other party in the investigation and resolution of any complaints, claims, actions, or proceedings that may be brought by or that may involve Assigned Employees.

Indemnification and Limitation of Liability

9. To the extent permitted by law, STAFFING FIRM will defend, indemnify, and hold CITY and its directors, officers, agents, representatives, and employees harmless from all claims, losses, and liabilities (including reasonable attorneys' fees) to the extent caused by STAFFING FIRM's breach of this Agreement; its failure to discharge its duties and responsibilities set forth in paragraph 1; or the negligence, gross negligence, or willful misconduct of STAFFING FIRM or STAFFING FIRM's officers, employees, or authorized agents in the discharge of those duties and responsibilities.
10. To the extent permitted by law, CITY will defend, indemnify, and hold STAFFING FIRM and its parent, subsidiaries, directors, officers, agents, representatives, and employees harmless from all claims, losses, and liabilities (including reasonable attorneys' fees) to the extent caused by CITY's breach of this Agreement; its failure to discharge its duties and responsibilities set forth in paragraph 2; or the negligence, gross negligence, or willful misconduct of CITY or CITY's officers, employees, or authorized agents in the discharge of those duties and responsibilities.
11. Neither party shall be liable for or be required to indemnify the other party for any incidental, consequential, exemplary, special, punitive, or lost profit damages that arise in connection with this Agreement, regardless of the form of action (whether in contract, tort, negligence, strict liability, or otherwise) and regardless of how characterized, even if such party has been advised of the possibility of such damages.
12. As a condition precedent to indemnification, the party seeking indemnification will inform the other party within 15 business days after it receives notice of any claim, loss, liability, or demand for which it seeks indemnification from the other party; and the party seeking indemnification will cooperate in the investigation and defense of any such matter.
13. The provisions in paragraphs 9 through 13 of this Agreement constitute the complete agreement between the parties with respect to indemnification, and each party waives its right to assert any common-law indemnification or contribution claim against the other party.

Miscellaneous

14. Notwithstanding any other provision of this Agreement to the contrary, the provisions of paragraphs 9 - 13 shall remain effective after termination or renewal of this Agreement.
15. No provision of this Agreement may be amended or waived unless agreed to in a writing signed by the parties.
16. Each provision of this Agreement will be considered severable, such that if any one provision or clause conflicts with existing or future applicable law or may not be given full effect because of such law, no other provision that can operate without the conflicting provision or clause will be affected.
17. This Agreement and the exhibits attached to it contain the entire understanding between the parties and supersede all prior agreements and understandings relating to the subject matter of the Agreement.
18. The provisions of this Agreement will inure to the benefit of and be binding on the parties and their respective representatives, successors, and assigns.

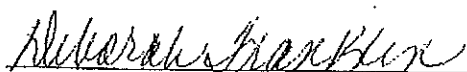
19. The failure of a party to enforce the provisions of this Agreement will not be a waiver of any provision or the right of such party thereafter to enforce each and every provision of this Agreement.
20. CITY will not transfer or assign this Agreement without STAFFING FIRM's written consent.
21. Any notice or other communication will be deemed to be properly given only when sent via the United States Postal Service or a nationally recognized courier, addressed as shown on the first page of this Agreement.
22. Neither party will be responsible for failure or delay in performance of this Agreement if the failure or delay is due to labor disputes, strikes, fire, riot, war, terrorism, acts of God, or any other causes beyond the control of the nonperforming party.
23. The provisions of this agreement shall be entered into according to the laws of the State of California.

Term of Agreement

24. This Agreement will be for a **term of 12 months** from the first date on which both parties have executed it. This agreement may be extended for 12 additional months by mutual agreement of both parties. The Agreement may be terminated by either party upon **15 days** written notice to the other party.

Authorized representatives of the parties have executed this Agreement below to express the parties' agreement to its terms.

CITY OF BANNING



Signature

Deborah Franklin

Printed Name

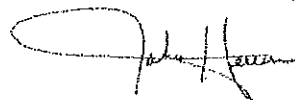
Mayor

Title

05/21/2015

Date

GOVERNMENT STAFFING SERVICES, INC.



Signature

John Herrera, CPA

Printed Name

President / CEO

Title

05-15-2015

Date

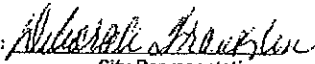
GOVERNMENT STAFFING SERVICES, INC.

EXHIBIT "A"
of Municipal Staffing Agreement



Corporate Mailing Address: PO Box 718, Imperial Beach, CA 91933
Phone: 1-866-406-6864 • Fax: 1-866-498-6678
Website: www.munitemps.com

Municipality:	City of Banning	Notes
Client Contact:	Rita Chapparosa	Deputy HR Director
Interim Position:	City Manager	Dean Martin
Bill Rate per Hour:	\$96.15	All hours will be billed at this rate as long as the "minimum" 4/10 Work Scheduled is worked.
Hours per Week:	40+	
Start Date:	5/13/2015	
Expected Duration:	6 Months	Depending on Needs of City.

Authorized Signature: 
City Representative

If CITY uses the services of Dean Martin presented as its direct employee, as an independent contractor, or through any person or firm other than MuniTemps during or within 183 days after any assignment of Dean Martin to CITY from MuniTemps, CITY must notify MuniTemps and pay a lump sum equal to (a) 9% of the annual salary offered Dean Martin if that Employee has worked a minimum of 900 hours or (b) 18% of the annual salary of Dean Martin if the Employee has worked less than 900 hours for CITY.

MINUTES
CITY COUNCIL
BANNING, CALIFORNIA

10/13/15
SPECIAL MEETING

A special meeting of the Banning City Council was called to order by Mayor Franklin on October 13, 2015 at 4:01 p.m. at the Banning Civic Center Large Council Chambers, 99 E. Ramsey Street, Banning, California.

COUNCIL MEMBERS PRESENT: Councilmember Miller
Councilmember Moyer
Councilmember Peterson
Councilmember Welch
Mayor Franklin

COUNCIL MEMBERS ABSENT: None

OTHERS PRESENT: Dean Martin, Interim City Manager/Interim Administrative Services Dir.
Lona N. Laymon, City Attorney
Fred Mason, Electric Utility Director
Sonja De La Fuente, Deputy City Clerk
Marie A. Calderon, City Clerk

CLOSED SESSION

City Attorney Laymon announced that there are four items for closed session as follows: one case of potential initiation of litigation matter pursuant to Government Code Section 54956.9 (d)(4); one case of significant exposure to litigation pursuant to Government Code Section 54956.9 (d)(2); Existing litigation pursuant to Government code Section 54956.9 (d)(1): (a) Robertson's Ready Mix, Lt., v. City of Banning-Case No. RIC 1409829 and RIC 1409037, b) Lloyd Fields v City of Banning (Court of Appeals No. E057277); and real property negotiations pursuant to Government Code Section 54956.8 to confer with its real property negotiator, Dean Martin, in regards to the Village at Paseo San Gorgonio for the possible transfer of that project to a new developer.

Councilmember Miller asked why the ECI report is in closed session; the topic is for open session and there is no negotiation, there is no legal action and why is that in closed session.

City Attorney Laymon said that report is also available for open session and it is in closed session for any type of further negotiations that we may want to make in terms of sale terms of the property with respect to the transfer to a possible new developer.

Councilmember Miller said that there was nothing in the agenda that specifies that we are going to consider any further negotiations. The item on the agenda is to approve the project as it stands. If we wish to have a different approach and ask for renegotiation that should be on the agenda. This ECI report is part of our discussion of the project that is in open discussion and therefore it belongs in open session and not closed session.

City Attorney Laymon said that they just received the report literally yesterday and has made it part of the open session.

Councilmember Miller asked what is in the closed session.

City Attorney Laymon said the closed session is simply to consider whether or not there would be any further consideration to go forward or not with this proposed transfer and if not to do so what the terms of a purchase or sale would be if we were to go with an alternative route.

Councilmember Miller said that is exactly what belongs in open session. If we are going to have something in closed session it is a negotiation with the Vanir Corporation and therefore the closed session should be a discussion with the Vanir Corporation.

Councilmember Moyer said he would have some closed session questions about negotiations and whether they should continue or not.

Mayor Franklin said that this item is on both closed and open session.

Councilmember Peterson asked why we would discuss the ECONsolutions report by HdL at all in closed session. That really has nothing to do with the negotiations.

City Attorney Laymon said if you wish to not discuss that in closed session that is absolutely your prerogative.

City Attorney Laymon said that she believes that the consultant is here and available now to answer any questions as part of your public comment and you may want to open public comment on closed session generally. The consultant may have input on the report at this point in time to give to you. She said that the consultant is not available for your open session time slot.

Mayor Franklin opened the closed session items for public comments and she asked the City Attorney if Councilmember Peterson has to recuse himself if it has to do with Vanir. City Attorney Laymon said yes.

Councilmember Peterson said for anything that has to do with that and even the Economic Development Report. He said it doesn't have to do with anything about the facility. This is about an \$8,000 dollar contract that we have to accept.

City Attorney Laymon said it is still a project that has a potential economic impact upon his real property that is located within the downtown area. She told him he could recuse himself and if he wanted to come back and make his own public comment as a private citizen, he could do that.

Councilmember Peterson recused himself at this time and left the Council Chambers.

Alex Leon, President of Vanir Development Company addressed the Council said that they are very excited about the opportunity to be here today and move forward with this project and are here to answer any questions the Council may have.

Berry Foster, Principle with HdL addressed the Council stating that he manages the ECONsolutions by HdL Division which specializes in economic development. He said that they were retained to look at the qualifications and experience of Vanir to step in as a developer for the project. Then they also looked at the highest and best uses for that property and looked at what had been presented and what has been approved and weighed in on what they thought. He said he has worked in city government for 25 years and in Development Services for 23 of those years and has been with HdL for almost two years now and has been involved in about 28 million square feet of development so has a little bit of experience having worked in the development industry for a long time. They look at the highest and best use evaluation; they did a demographic study of the trade area, looked at a segmentation profile which looks at that trade area, looks at characteristics of the trade area of potential shoppers and users that would potentially be at that site. After they offer up their recommendation for highest and best uses they also then looked at some estimates for job creation and more importantly, some revenue estimates for what could be produced looking at those highest and best uses. They carefully looked at Vanir and certainly they have a strong record and he thinks they have the experience and qualifications to step in as this developer for this project. They have done a lot of work all over the state, all over the Inland Empire and have done similar projects to this so they really possess the qualifications and experience to step in and assume the role as a developer for this project. Again, they did a demographic report to try to really zone in at that trade area. Population densities are a little bit light for the trade area, income levels are a little bit light for the trade area so that kind of gets back down to what kind of development can you really do there. He said that there is more detail in the report and then there is an attachment with the full demographic and Segmentation Report. He said that they looked at what had been presented and approved and what Vanir was offering to do and in regards to Building 1, it is looked at being a two-story mixed-use building with retail on the bottom and office on top.

Councilmember Miller asked what does this have to do with a closed session meeting on changing the contract and as he understands that is what the closed session is about.

Mayor Franklin said that Mr. Foster has the right to speak to anything on or off the agenda during public comment. Councilmember Miller apologized.

Mr. Foster apologized to the Council because he has another commitment and has to be in La Mirada for a City Council meeting otherwise he would be here and already had that scheduled. He continued and stated that in regards to Building 1 it is their experience in this trade area and marketplace that that probably doesn't work and unless you really do it right it is a recipe for disaster and so retail on the bottom floor for that kind of location in this kind of trade area is challenging. You don't get ceiling heights and sometimes it is just an afterthought and if you look in your downtown area you have office space above retail right now that is just sitting there so he thinks that is probably not the right fit and not the highest and best use for that location. So what they are advocating is to take that and do a one-story concept and in that way you can get proper ceiling heights and properly plan and maximize as much retail as you can get in that building still making parking work and site design issues so they feel pretty confident that they would be able to do that. He thinks the multi-tenant use works there for restaurant uses. It is not sit-down restaurants anywhere right now especially in the Inland Region; that is still very soft. It more that fast-casual type of restaurant uses. That is the fastest growing segment right now in

California and really in the country. That really fits your demographics, the market, the demand and would fit nicely with that kind of building. Building 2 is a multi-tenant building with 4,400 sq. ft. and that is right on target and would advocate that is appropriate. It would have the possibility for specialty-retail and fast-casual restaurants. Building 3 is proposed as being 6,600 sq. ft. for a sit-down restaurant and he feels that is challenging in this market place right now especially in this market place and in that location. Have a couple of fast-casual restaurants in there fits better with the demographics, with the trade area, and with the trade area. Building 4 which is the proposed two-story office building in pursuing that with Riverside County provides a nice anchor with the project and he thinks doing a design build and Vanir has does some of these buildings with other agencies and with Riverside County specifically and it fits nicely with the new justice center and so you are using those fast-casual restaurants and helps with the overall performance for the project and makes some sense there. In regards to job creation and they are looking at about 256 to 358 if you use their highest and best uses which are slightly a little bit different than what is being proposed but still in the ballpark. In terms of looking at sales tax revenue we are looking at about \$90,000 to \$120,000 annually. That is the 1% that the City would get for sales tax and then property tax realizing you don't get the full 1% it's a little over \$70,000 annually.

There was some Council discussion with Mr. Foster in regards to a sit-down restaurant and fast-casual restaurants, the presence of a probation building being a major deterrent, revenues expected for sales tax and property tax being based on project as is or what is being proposed, total value of property tax, use of these numbers for this project as it is now, total number of jobs, people possibly moving closer to where they work, mixed and retail uses, and trade area used.

There was some Council and City Attorney dialogue in regards to deal points and terms, terms of the purchase price, terms of the actual sale being discussed in closed session and what you are allowed to do under the Brown Act.

City Attorney Laymon said it is absolutely clear under the Brown Act that you are permitted to discuss the terms and the potential for a sale or a the non-sale of a piece of property within closed session. It is clearly granted to the Council within the Brown Act.

Mayor Franklin closed the item for public comments. Meeting went into closed session at 4:33 p.m. and recessed at 5:08 p.m.

ADJOURNMENT

By common consent the meeting adjourned at 5:08 p.m.

Marie A. Calderon, City Clerk

MINUTES
CITY COUNCIL
BANNING, CALIFORNIA

10/13/15
REGULAR MEETING

A regular meeting of the Banning City Council and a joint meeting of the City Council and the City Council Sitting in Its Capacity of a Successor Agency was called to order by Mayor Franklin on October 13, 2015, at 5:16 p.m. at the Banning Civic Center Council Chambers, 99 E. Ramsey Street, Banning, California.

COUNCIL MEMBERS PRESENT: Councilmember Miller
Councilmember Moyer
Councilmember Peterson
Councilmember Welch
Mayor Franklin

COUNCIL MEMBERS ABSENT: None

OTHERS PRESENT: Dean Martin, Interim City Manager, Interim Administrative Services Dir.
Lona N. Laymon, City Attorney
Alex Diaz, Police Chief
Arturo Vela, Acting Public Works Director
Fred Mason, Electric Utility Director
Heidi Meraz, Community Services Director
Brian Guillot, Acting Community Development Director
Tim Chavez, Battalion Chief
Michelle Green, Deputy Finance Director
Rita Chapparosa, Deputy Human Resources Director
Stacy Baval, Utility Financial Analyst
Sonja De La Fuente, Deputy City Clerk
Marie A. Calderon, City Clerk

Mayor Franklin asked for a moment of silence in memory for the shooting victims and their families.

The invocation was given by Pastor Sarah Guevara, New Creation Church. Councilmember Peterson led the audience in the Pledge of Allegiance to the Flag.

REPORT ON CLOSED SESSION

Assistant City Attorney Laymon said that the Council met in closed session and in regards to Item 1- one case of potential initiation of litigation; Item 2 – one case of significant exposure to litigation; and Item 3a – Robertson’s Ready Mix, Lt., v. City of Banning-Case No. RIC 1409829 and RIC 1409037 there was no reportable action on each of those items. With respect to Item 3b - existing litigation concerning Lloyd Fields v. City of Banning (Court of Appeals No. E057277) the City Council did provided a unanimous consensus to support the passage of HR 387 in the Federal Senate. HR 387 is a cooperative legislation that is being proposed before the Senate to resolve the case that is identified (Fields v. City of Banning) to resolve it favorably as between

the City, the Tribe and Mr. Fields. In regards to Item 4 – real property negotiations in regards to the Village at Paseo San Gorgonio there was no reportable action.

PUBLIC COMMENTS/CORRESPONDENCE/PRESENTATIONS

PUBLIC COMMENTS – *On Items Not on the Agenda*

Chris McCallum, 757 W. Westward addressed the Council stating that the mission statement of McCallum Industries is to educate the world in the value of giving. He said that he rejects the Paseo at San Gorgonio Project as it sits right now with probation and the DA's office in it. He also said that we the citizens of Banning need to find a way to thank and honor Mr. Lloyd Fields and his family for his dad's contribution to our region. In order for our city to move forward we must acknowledge the past. The most complex issue in our city today is to find a way to show Mr. Fields we do understand that when his father gave up those 40 acres on the east end of town the revenues produced over the last 50 years have helped Banning survive and had the great foresight to know it would create great opportunities for Banning's future from the east to the west. We need to stop fighting with Mr. Fields and ask for his help in building what his father envisioned. He would like to be a better leader in Banning's future and in order to do that he needs to find solutions to the issues that are very complex to our city. He needs to get passed his ego while maintaining his integrity to the people, "Where the Past Meets the Future, Banning Stagecoach Town USA". He apologized to the Harris-Fields Family and his friends for his lack of knowledge concerning Mr. Fields' gifts to our city and he needs to be more sensitive and knowledgeable in our history. He looks forward to working with our historians in the Fields family to re-establish a significant point of interest in Stagecoach Town USA, Where the Past Meets the Future. He said that God's call upon his life is to finish well and pass the faith on to those who will come after him. Second Timothy, verse 2 states, "In the things you have heard me say in the presence of many witnesses entrust to reliable people who will also be qualified to teach others." This also gives him an opportunity to work on his mission statement which is to "educate the world in the value of giving."

Ellen Carr addressed the Council stating that on Friday she will be a resident of Banning for 23 years. She knows that Mayor Franklin will be giving the State of the City Address in a few days so she decided to give the State of the Animals Address since she is the representative of Tender Loving Critters Animal Rescue. "Out of sight, out of mind" seems to be the motto of not only Banning but the other cities of the Pass Area. Do you realize that we have an animal crisis going on? There are many homeless animals roaming our streets. Litters of kittens and puppies are born every day and abandoned without any hope for rescue. Do you know what happens to these animals? Do you know how they exist? Do you know how they die? Animal control picks them up and do you know what happens to them once they arrive at Ramona Shelter? Do you know how many pets get reunited with their owners? Do you know how many pets die because their owners cannot afford the fees charged to reclaim their pets or simply have a way to get up to Ramona to see if their animal is there. For too long Banning's animals have been "out of sight, out of mind" and personally she is sick of this attitude. You need to find out the answers she asked and maybe once you get those answers you will be just as applauded and frustrated as she is. She realizes that for some people these non-voting residents of Banning are just animals but even so they deserve to have the right to be treated humanely. She hopes the members of the City Council will stand up and speak for the animals of our community and do the right thing.

Amy Pippenger, Vice-Chair of the Banning Stagecoach Days Association addressed the Council introducing the new 20015/16 Rodeo Queens and also announced that next year's Banning Stagecoach Days will be held September 9-11, 2016. The rodeo queens introduced themselves at this time: Sammi Jo Stuart, Banning Stagecoach Days Tiny Miss; Morgan Quayle, Junior Miss Banning Stagecoach Days Queen; and Jennifer Hall, Miss Banning Stagecoach Days Rodeo Queen. Amy Pippenger said that they also have Kaylie Capetillo, Banning Stagecoach Days Little Miss who could not be present this evening. At this time the queens presented a plaque to the City Council to thank them for "Believing in Banning" and in appreciation for the outstanding contribution and continuous support generously provided by the City of Banning. Ms. Hall said that this coming Sunday, Oct. 18th starting at 8 a.m. they will for the first time ever have the National California High School Rodeo coming to Dysart Park and it will be open to the public and admission is free. She invited everyone to come out and see some amazing high school athletes. Also on November 7th they will be having their pancake breakfast at the Banning Community Center from 7 to 11 a.m.

Jerry Westholder, resident addressed the Council stating that several weeks ago during City Council Mr. Peterson made an announcement that Sun Lakes was in arrears some \$420,000 dollars on a water bill and neglect on two meters. He is really alarmed that he hasn't heard anything about it since and since the press is the only business protected by the First Amendment and is supposed to represent the people and do some inquiry and find out and let us know what is going on. He is really appalled by the local press for not investigating and letting us know what is going on. He is incredibly concerned about this because Sun Lakes is only about a third of the Banning population yet they have three-fifths representation on our City Council with due respect to Mr. Miller. Something is incredibly lopsided here; something is incredibly wrong. Before we go to some kind of investigation from the State he thinks that the City Council really needs to look at districting so we have fair representation from the whole city. Also he thinks the Water Department and Electric Department, as Mr. Peterson suggested, needs a forensic investigation. We have been told time and time again of water bills and electric bills going on 33 and 34 days and he doesn't know what day of the month has 33 days and you say it all works out. No it doesn't because by the time you are at 33 days you are at a higher tier level and you pay more money for electricity and water. When he was on the Council and asked Mr. Mason about this he said he was using a regular spread sheet and in talking to his son-in-law who is a head information technology guy said something like that can be corrected in less than a week; less than a week. We need to look into this and need full disclosure, need a forensic investigation and we need to do what is best for the entire city of Banning.

Councilmember Miller said he has heard often about the complaint that there are people from Sun Lakes on the City Council and the reason that they are on the City Council is that we are old and therefore have nothing else to do and have the time to run for the City Council. He would like to know if anyone can point to anything whatsoever in the last three years since he has been on the Council, any action whatsoever, that has favored Sun Lakes. He also believes that if you look at the past four years of the previous Council that also had people from Sun Lakes on it, he does not believe you can find anything whatsoever that favored Sun Lakes. Everybody on the Council whether we are from Sun Lakes or not is here to help Banning.

Councilmember Moyer said he ran because he believes in Banning and because he moved here to spend the rest of his life so don't accuse him of doing anything other than serving the city of Banning in what he truly believes is right.

David Ellis, resident addressed the Council addressing Councilmembers Miller and Moyer saying that as Sun Lakers you have shown compassion for this city. He explained that districting is happening a lot in California and what it will actually do is divide the city into five districts and each district will then have a Council Member elected which will give total representation for the whole city so then we won't have any of the issues saying Sun Lakes is getting this and Sun Lakes is getting that because they have more Council Members than the rest of the city. Again, he appreciates what the two Council Members said in that there hasn't been a real show of favoritism towards Sun Lakes in the last few years but he feels that districting really is necessary so that everybody in the city feels they have a representative for their area and district to vote.

Diego Rose, resident and local business owner addressed the Council stating he often complains around the city about the spraying of Round-up and has been complaining for several years about the way it is sprayed and the fact that we are spraying it in the first place is an issue and the hypocrisy of having a clean-gutter program instituted in paperwork on the counter and everything that kind of comes with it. This has been going on for several years now and he has addressed it to several different people whether it is city managers or street department or individuals and it continues to go on and a lot of his complaints are based not on just opinion. He has a background as a public health nurse and the Round-up that we are currently using has just been placed on California's carcinogens list. He often hears about legal predicaments that we put ourselves into and this is going to be one of them for several reasons, the application process, and how it is being used and sprayed. He filmed some of it; the spraying in the wind without covering for the employees and without proper application. He doesn't know how they are taught to use it, when to use it and all the other specifics because he is not there. He would be more than happy to do it but he would like to think that the City is implementing all of that in place as it stands. He knows that weed control is an issue and he has also offered several types of solutions. His biggest concern is not necessarily for himself but his customers. His customers that were at his location as the wind blew across you could literally smell the change in the courtyard and inside of his building and the same thing happened in front of his house and that is when it all started. He took issue with it then and certainly took issue with it the other day because no matter what is said or who you say it to the problem is that you are talking to a wall and that is where the frustration sets in because he wants solutions and that is why he comes here. He wants to make the city better; he cares and he lives here. He offered to contribute to decomposed granite in the parkway because it is naturally weed-resistant and doesn't require a lot of maintenance, doesn't catch fire, and doesn't require sprinklers. He has offered to take care of the parkways in front of his business and doesn't mind doing those things because he feels that it is a direct reflection of his business and takes it personally. So he lives here and doesn't mind contributing however, when you keep talking to the wall and keep talking to the wall and you get nothing, what do you do. When it becomes important or when it becomes a legal issue, it's always too late. Forethought goes a long way and somebody is offering it to you and he wishes people would listen.

Heather Rhoades, Inland Behavioral and Health Services addressed the Council stating that they have been established since 1978 and have a beautiful new building here in Banning at 1070 E. Ramsey. They have doctors there Monday through Friday, 8 a.m. to 5 p.m. and are slowly but surely developing more and more. They also have dentist on site now five days a week and pharmacy three days a week Wednesday, Thursday and Friday. She is on the outreach and

insurance side of it and helps the community sign up for health insurance whether it be Medical or Covered California and with Covered California they have the new enrollment coming up and the guidelines are expanding so a lot more people will qualify for other benefits and services. She encouraged the Council Members and the community to come out and visit them to see what new things are going on and a good day for that would be October 30th where they will be having a Breast Cancer Awareness Event from 2 to 4 p.m.

Regina Johnson Blanche resident of Banning for 15 years and has been serving the community for 27 years and 12 years prior to her moving here. She moved here with the goal and intension to help and better the community. She opened a clothing store, provided child care, work on a community outreach development project, wanted to create jobs for people in the community, opened her home for a temporary shelter for homeless people, and tried to start a non-profit organization business to help people get off the streets. She said she suffered a lot of losses here and lost her clothing store. Right now she is having an issue with the Water Department and doesn't have any water at her house and was without water for about 8 months, can't flush her toilets and has tried to pay one bill for \$1,700, another for \$1,200 and right now it is \$700. She is on a fixed income, disabled and cannot work. She doesn't have anywhere to go and no family where she can have a temporary place to live. She is stuck right now and has tried to address the issue for a long time. She was getting over 1000 pounds of water pressure coming into her house and has a lot of water damage with mildew, mold, asbestos and has tried to address the City with the issue. Right now she is just stuck.

CORRESPONDENCE

The City Clerk read three items at this time:

- Melinda McNabb regarding designing and making repairs to the Red, White and Blue Bridge overpass on San Gorgonio spanning the 10 freeway in making the bridge safe for parking and traffic (see Exhibit "A" attached).
- Fred Sakurai regarding the shameful display of breakdown of decorum regarding Public Comments (see Exhibit "B" attached).
- Diane Box regarding the relentless bombardment in the form of correspondence from Charlene and Fred Sakurai.

Councilmember Peterson commented on a letter written from Fred Sakurai that was read out loud at the last Council Meeting and wanted to make some corrections because he didn't want false information going to the public. Mr. Sakurai said that it was a sad day in Banning when a City Councilmember recommends an outlaw website. Councilmember Peterson said first of all there is no outlaw websites that anybody recommends. It is a completely registered website and called "thebanninginformer.com" not "thebanningmisinformer". So Fred needs to stop spreading his lies and false information if he is going to write a letter and have it read in Council Meetings and it needs to be correct. He also wrote that the outlaw website had been the subject of lawsuits. The banninginformer.com has never been served with a lawsuit so we have to make sure that the people understand it has never been served with a lawsuit. The owner of the website, Phillip Goebels as in Ellis, Fields, Peterson, Miller and Westholder has legally protected himself with an LLC. That too is false in the letter because he has gone to the Secretary of State Business Search and there is no such record of any of the above names that he has just read attached to any LLC with The Banning Informer so we need to keep that clear. Furthermore, he

constantly quotes the Brown Act violations, the Brown Act violations, the Brown Act violations and it is easy to quote. For the record, the Government Code Section 54950 to Section 54963 is only 13 sections long which probably on an 8-1/2 x 11 sheet of paper wouldn't take up more than three sheets of paper. He would suggest that Mr. Sakurai read those 13 sections and that way he doesn't need to ask our City Attorney to define it for him because as many letters that he writes and the time that he takes to read the letters he could certainly read the 13 sections of the Government Code.

Councilmember Miller said that the Brown Act is very important and the reason the Brown Act was developed was not to muzzle the Council; it was exactly the opposite. All the sections are designed to make sure that the public has a right to speak before the Council and that the Council does not hide anything from the people. The Brown Act basically says what is permissible in a closed session where people cannot talk and it limits that very, very strongly. As a matter of fact, the Council had a closed session before this meeting and he argued for 20 minutes about whether or not something should be closed or whether it should be open. So there is a very serious effort in the Brown Act and in our Council that every single thing be open so that whatever we say you hear and whatever you want to say we hear. So when Mr. Sakurai says that the object of the Brown Act is that we can't talk, that is nonsense. The Brown Act is to permit the public to talk. The Brown Act does say that we should be brief and again, as Councilmember Peterson said brief is in the tongue of the beholder and maybe he hasn't been brief but what he has said he considers important and the Brown Act is for communication between the Council and the people. But actually Mr. Sakurai said something pretty good if there is any debate about briefness he says we should do that at the end of the meeting. Well, we can change that and he would recommend that we change the open discussion of the Council from the end to right after the public discussion so that the Council can answer any questions or any comments right there. Also, Mr. Sakurai said that Mr. Peterson received a gift of \$15,000 from Mr. Fields and then moved from La Mirada to Banning. First of all, it is not a gift. It is a campaign contribution but he would suggest that Mr. Sakurai offer Mr. Peterson \$15,000 dollars and see if he moves back.

Mayor Franklin said in regards to the Council comments being done at the end of the meeting that was done at the request of the public because the comments were previously right after Public Comments and the public requested to put ours at the end and that is why it was changed.

City Attorney Laymon said this could be a possible future agenda item. Also the word "brief" keeps coming up and it is in the Brown Act. The Brown Act does actually have a very specific provision in it that says that the Council is allowed to make a "brief response" to public testimony. In one of the comment letters it also asked whether the Brown Act applies to written correspondence as well as verbal public comment and it does which is precisely why we are responding to these written letters the same way we would respond to public comment. She suggested that if anybody wants to add to the agenda any of these issues under Future Agenda Items that would be possibly something we could do at that point in the agenda.

Diego Rose said in response to what Councilmember Miller said the Brown Act is kind of a funny thing and as you are up there speaking about how it is actually designed to help the public and Council interact it actually has had the opposite effect and we utilize it in a manner that kind of elicits exactly what Fred Sakurai is saying; it muzzles the public. It limits our time and shortens your response. It detracts from a give and take. He has seen this whole-heartedly here at this Council and other Councils' all over including the hospital. So what often happens is that

everybody hides behind the Brown Act in that they do not have to respond and are limiting time. He likes the suggestion and he likes the give and take; that is why they are here. They want answers and they want to talk and that is how we get over and around through subjects. He hopes that what you are saying and the sincerity in which you are saying it is real and he hopes that there are changes like that because that is really the gist of everything going on here.

PRESENTATIONS:

1. Introduction of New Employees – Tammy Macias, George Perez, Mark Washington, and Ralph Munoz.

Interim City Manager Martin introduced and read short bios of the City's new employees Tammy Macias from the Electric Department, George Perez and Mark Washington from the Utility Billing Department specifically in the meter reading section, and Ralph Munoz from the Streets and Parks Maintenance Department.

APPOINTMENTS

1. Ad Hoc Committee Request
(At least two members from the City Council and the Acting Public Works Director
To review and recommend FY 2016/17 Community Development Block Grant
“CDBG” program applications.)

There was some discussion as to who would like to sit on this Ad Hoc Committee to review the CDBG program applications.

Motion Welch/Franklin approving the appointment of Councilmembers Moyer and Peterson to the Ad Hoc Committee. Motion carried, all in favor.

CONSENT ITEMS

Mayor Franklin pulled Consent Items 3 and 6 for discussion.

1. Approval of Minutes – Special Meeting – 09/22/15 (*Workshop*)

Recommendation: That the minutes of the special meeting of September 22, 2015 be approved.

2. Approval of Minutes – Special Meeting – 09/22/15 (*Closed Session*)

Recommendation: That the minutes of the special meeting of September 22, 2015 be approved.

4. Approval of Accounts Payable and Payroll Warrants for Month of August 2015

Recommendation: That the City Council review and ratify the following reports per the California Government Code.

5. Resolution No. 2015-94, Authorizing the Submittal of an Application, Acceptance of an Allocation of Funds and Execution of a Grant Agreement with the California Department

of Transportation for an Airport Improvement Program Matching Grant.

Recommendation: That the City Council: 1) adopt Resolution No. 2015-94, Authorizing the Submittal of an Application, Acceptance of an Allocation of Funds and Execution of a Grant Agreement with the California Department of Transportation for an Airport Improvement Program Matching Grant; 2) Authorizing the City Manager to execute any documents required to apply for and accept these subject funds on behalf of the City of Banning; and 3) The Administrative Services Director is authorized to make the necessary budget adjustments to record the grant revenue into the Airport Fund.

Motion Miller/Welch to approve Consent Items 1, 2, 4, and 5. Mayor Franklin opened the item for public comment; there were none. **Motion carried, all in favor.**

3. Approval of Minutes – Regular Meeting – 09/22/15

Councilmember Miller said that there is a small error on page 24 in regards to The Banning Informer where he puts a summary of what happens at the City Council meetings and it should be in all small letters with no spaces so it is “thebanninginformer.com” with no capitals and no spaces.

Motion Moyer/Welch to approve Consent Item No. 3 regarding the approval of the regular meeting minutes of September 22, 2015 as corrected by Councilmember Miller. Mayor Franklin opened the item for public comment; there were none. **Motion carried, all in favor.**

6. Resolution No. 2015-91, Approving the First Amendment to the Professional Services Agreement with Hinderliter de Llamas & Associates (HdL) related to the Economic Development Consulting Services in an amount “not-to-exceed” \$8,000.00.

Mayor Franklin said that a question has been raised whether or not Councilmember Peterson needs to recuse himself on this item.

City Attorney Laymon said probably not. This does not pertain directly to the project. It is purely a professional services agreement award; like a warrant.

Councilmember Miller said this is a request for payment for a report and he sees in the statement that the Council is being requested to approve payment dated as of today and yet a draft report was asked on October 8th. How can you ask for a draft report from the person who you are asking the report from prior to getting Council’s approval for payment?

Interim City Manager Martin said because there actually is enough room on the existing contract to cover it but it would then preclude him from doing some of the other services that were originally intended for that contract.

Councilmember Miller said the additional amount of \$8,000 was for this analysis of the Vanir Project so again, how can you ask the Council to approve it after the report has been submitted.

Interim City Manager Martin said again, what it does it creates the additional room within the contract without him having to stop that person from doing other activities but even if the Council did not approve this, there is enough room under the existing contract to pay him for the report.

Councilmember Miller said you are going to pay for it one way or the other without Council approval but like this they can continue doing all the other things.

Interim City Manager Martin said if the Council did not approve it; it would be paid for because we do have enough authority under the existing contract. It just means that there are other things under his contract that we wanted him to proceed with that we would not now have the funds to cover.

Motion Miller/Peterson to approve Consent Item No. 6 to adopt Resolution No. 2015-91, approving the First Amendment to the Professional Services Agreement with Hinderliter de Llamas & Associates (HdL) in the amount not to exceed \$8,000.00 for additional Economic Development Consulting Services. Mayor Franklin opened the item for public comment; there were none. **Motion carried, all in favor.**

Joint Meeting

Mayor Franklin recessed the regular City Council meeting to a joint meeting of the Banning City Council and the Banning City Council Sitting In Its Capacity of a Successor Agency.

CONSENT

1. Resolution No. 2015-07 SA, Approving the Establishment of Recognized Obligation Payment Schedule 15-16B for the Period of January through June 2016 and Approving Certain Related Actions.

Motion Welch/Peterson to adopt Resolution No. 2015-07 SA. Mayor Franklin opened the item for public comment; there were none. **Motion carried, all in favor.**

REPORTS

1. Resolution No. 2015-08 SA – Refunding Tax Allocation Bonds
(Staff Report – Dean Martin, Interim City Manager)

Interim City Manager said that staff is recommending that we move ahead with the refunding of the Tax Allocation Bonds. As you know, we recently had a very successful refunding of our Electric and Water Utility Bonds and we still have favorable market conditions for now to move forward. He turned the meeting over to Bond Counsel, Don Hunt from Norton Rose Fulbright.

Don Hunt addressed the Council stating that the documents before the Council are the first step in the process for being able to refund the Successor Agency indebtedness. The process would be for the Successor Agency to approve the form of the documents. The resolution approving that would be along with the documents to the Oversight Board for their official approval. At that point then the various financial information and documents would be submitted to the State Department of Finance (DOF) and they have a process where they have up to 65 days to review and act, approved or send them back if they have an issue with respect to the approval.

Generally these documents are in a form that they have used with many other Successor Agencies and they don't anticipate any issue with DOF other than the time period that they will require to process the action to approve the refinancing. There is considerable savings here and Mr. Marshall Linn the Financial Advisor to the Successor Agency can give you an update on the information with respect to the savings.

Mayor Franklin asked Mr. Hunt to explain for the benefit of the public why we are doing this at this point.

Mr. Hunt said the dissolution statute for redevelopment provided that Successor Agencies could and really should refinance where there was an opportunity to lower debt service because all of the savings gets passed through to the various taxing entities that are within the jurisdiction of the Successor Agency so all the taxing agencies that would otherwise receive the revenues if there were no Successor Agency benefit from the savings including the City.

Mayor Franklin opened the item for public comment; there were none.

Motion Peterson/Moyer to adopt Resolution No. 2015-08 SA, Authorizing the issuance of refunding tax allocation bonds in one or more series on a tax-exempt and/or taxable basis to refinance certain outstanding obligations, in an aggregate principal amount not to exceed \$40,000,000 and approving an indenture attached economic savings and legal information will be incorporated into a resolution to the City Council and Successor Agency for adoption. Motion carried, all in favor.

Mayor Franklin reconvened the regular City Council Meeting.

Meeting recessed at 6:34 p.m. and reconvened at 6:45 p.m.

REPORTS OF OFFICERS

1. Village at Paseo San Geronio Project: Proposed Transfer of Project Development to Vanir Companies, Extension of Design Review and Second Amendment to Purchase and Sale Agreement Governing Project.
(Staff Report – Lona N. Laymon, City Attorney)

Councilmember Peterson recused himself from this portion of the meeting because of a conflict of interest.

City Attorney Laymon gave the staff report on this item as contained in the agenda packet. She said at this point in time the proposal before the Council is essentially just a transfer of rights, a transfer of obligations. There are some changes that have been made to the original agreement to make up for the fact that we are now on a delayed timeframe so the project development time frame has been changed and she went over those dates. She also gave some background information on the Vanir group including financial capacity to perform this project.

Chris McCallum, 757 W. Westward addressed the Council and the public stating that he will be a leader in the near future in Stagecoach Town USA where the Past Meets the Future. He would like to welcome Vanir Corporation and anyone else who would like to help us build our future.

By bringing the past together with the future we can create an environment of working together with a common objective which mitigates your risk in our community and increases your opportunities in the Pass Region. Now is the time limited for our community leaders to step up out of the shadows and lead our city; not your problem. By working with you on this historic site we can help you maximize your turn on investment and in return we can give our Pass Regional great opportunities for the future. Thank you for your time and he looks forward to working with you Where the Past Meets the Future in Stagecoach Town USA. He said that we really have a great opportunity in our community right now and it is the time. He has been speaking with people and spoke with Lloyd Fields this morning and he didn't know him or what he was going to say today but we have a choice, the leaders in this community, to step up; we are in charge of the future. This is his time and he respects everyone sitting on the Council because he will be there soon.

City Attorney Laymon said for the public's information there has also been provided a development/marketing report that was prepared by HdL and this was pursuant to a request for such a marketing report by Councilman Miller. Copies of that report are available at the back of the room and it is called "ECONSolutions". In regards to the conclusion of the report it says, "Generally the proposal from Vanir seems fair and appropriate with some adjustments in uses and development concepts. Overall Vanir possess the necessary qualifications and development experience to undertake and successfully complete the Village at Paseo San Gorgonio Project."

Alex Leon, President of Vanir Development Company addressed the Council stating that with him is Vince McLaughlin and they will be happy to answer any questions regarding the development and are very excited to be here in Banning in helping the city grow. He said that they have been working on this project for a while with their partners and they have taken a stake in making sure that their work has not gone unnoticed with the City and they have had several meetings with the Ad Hoc Committee and basically have agreed and have prepared themselves to take over the entire project and are excited to do just that.

Mr. McLaughlin addressed the Council stating that he is Vanir's General Counsel and he worked with the City's city attorney and her colleague Ann Lanphar to develop the definitive transfer agreements that are in the staff report and in the public record now and he is available to answer any question that the Council may have concerning those documents.

There was dialogue between the Vanir, the Council and staff in regards to the ECONsolutions report and the flexibility of Vanir to meet a couple of the changes that are recommended in the report, the entitlements attached to the contracts already in place, the mixed use retail units, the phasing of the project, the possible need to take this back to the Planning Commission, and CEQA requirements.

Mayor Franklin opened the item for public comments.

Chris McCallum said that he rejects anything looking like Paseo at San Gorgonio at this point. We have sat for seven years trying to have everyone figure it out and we still don't have crap. In Banning we know what we are, Stagecoach Town, so whatever we do moving forward is about the future. He has been here as long as anybody and he is not willing to just stand back and let other people come into our city because we know what our needs are in our city. We need to make sure whoever comes in gives us those needs. The future of this entire district was

incredibly envisioned by Mr. Fields father 50 years ago. We need our historical past brought back in a way that is very productive to the future. The Council all got a copy (which he distributed to the Council) of what can be done to get a grocery store here and he asked a lot of questions in bringing that forward and wrote that with the help of other people but those are his words. When you say that there are not enough roof tops in the city of Banning you are not talking about the city of Banning, you are talking from Whitewater all the way to Highland Springs. He said that you have 4,000 people that work at Casino Morongo, thousands of people who work at the Cabazon Outlets, and employees of this building who work here that if they had a more convenient way to get their groceries they would stop on their way going west or those who live here that wouldn't have to fight Highland Springs. He has seen Banning sit second-hand to all the other crap around this area and he is done and he is frustrated more than he is angry. He has seen our schools being second-hand and they are dealing with an issue right now that is going to cost the citizens of this community a million dollars if we don't get on it. We saw a young man die just down the street here because we didn't as a community get on it. Our job is to look to the future and protect our children and our families. It is not about somebody coming in and telling me what I need. He said, "I'm Chris McCallum and I'm pissed".

Inge Schuler, resident addressed the Council stating that from what she understands this project is a different animal from what was originally proposed and the big elephant in the room is the probation department. She really thinks that a lot of the people in town are very much against this and she has a problem with the Council making these decisions about this different animal. For one thing this whole thing came to the forefront when our former City Manager agreed to make a contract with Mr. Pearlman that this hotel was going to be the probation department or an office building or whatever it was without notifying the Council so far as she is concerned we are dealing with a basis of an illegal contract. Now Vanir steps in and Vanir has a very, very, very interesting history going from Texas to San Bernardino and not all projects were completed so the history of this company isn't as glamorous as we have been told. We have done this many times before and particularly the Council who has been here the longest, Mr. Welch and Ms. Franklin, are probably concerned about the legacy they leave behind. Your legacy is going to be here and you are deciding tonight and supposedly you are dealing with a "consent-of-the-governed". The people are against it and if you want to have our consent you better do a better job of selling this. It doesn't bring sales tax and it doesn't bring property tax to town. How many years are we going to be saddled with the legacy of yours? She is sure the people will find an interesting comment on it and she knows that Councilmember Welch doesn't like disagreement from the public because he has talked to her in public and wished she would go away together with some of the other people; that is not "consent-of-the-governed" up there. She told the Council to please know what you are talking about and she would like to have input here and so would many others. Let's hope this turns out alright.

Dorothy Familetti-McLean, resident addressed the Council encouraging them to not transfer the agreement to Vanir (see Exhibit "D").

Diego Rose addressed the Council stating that he has several concerns some of which have already been touched upon. He likes to think about Norco when he thinks about a horse town and how they developed the city so there is a general theme throughout the city that kind of ties in all together and we haven't done any of that. We've had redevelopment projects that look like strip malls and street lights that don't match buildings and now we have another design project coming in that has all kinds of issues. The probation department is kind of a given and he thinks

the general consensus amongst the community is that it is a bad idea. He thinks it prudent that the Council listens to their community and he thinks now would be the best time. We don't need to just jump at everything that is on our plate; we can take a minute. If we didn't have something else that somebody was willing to do or another project someone was willing to bring forward, then he might say okay then let's baby-step through this but we keep moving forward. We are doing so with a group that despite all of their glorious background on certain projects also has some inglorious issues as well. Also, just looking through the ECONsolutions report by HdL there are several things that stand out immediately to him based on his sales and tax use of his business and there are a lot of issues in here that just don't add up; no matter how you look at it. He has plenty of issues with the chart as it stands and the information provided by HdL. As a whole, there are a number of issues that are being brought up with the Planning Commission where it should go and dates of the projects now. We keep kind of force-feeding this down the public's throat and it's time to take a step back and pull the reins back like they say here in Stagecoach Town. That property has been over there for a long time and it is not going anywhere and in fact, if it sat there for another 20 years it would probably be okay with a lot of people. We are not San Diego, we are not Redlands and we are not any other city anywhere around; we are Banning USA and we can do things our way. Do it in a way that keeps money here and generates excitement here that gets the city behind you. He hopes the Council doesn't take that step just because it is convenient. He hopes we do it right.

Don Peterson, citizen addressed the Council stating there are many things to be said here and we all know that this project has been controversial since the onset. One of the things that really bothered him today is the ECONsolutions report where it said that Vanir entered into an agreement with JMA in March 2013 to start planning a governmental office building on the project because in March 2013 that was ten months prior to the County awarding the lease to Banning Office Ventures. So we take a look at the timeline and we figure that March 2013 we have JMA and Vanir colluding together to build an office project, then in October 2013 we have Vanir going to the Secretary of State and filing an LLC for Banning Office Ventures, then in December 2013 we got the City Manager illegally changing the contract to the project, then in January 2014 you have the Board of Supervisors for Riverside County awarding the contract or lease to Banning Office Ventures. There is something wrong with this picture. He is not going to continue to beat that bush because we have already done it but you can certainly see the conspiracy or collusion to include a Vincent Yzaguirre in the real estate division that could have, may have given inside information to Vanir, an ex-Vanir employee. He also wanted to talk about our hodge-podge city. Councilmember Welch has been on the Council several times back to 2003, 2002 and was on the Council when the money was borrowed in the bonds and unfortunately he never got to spend it. Debbie has been on the Council long enough that she spent it for you or if she didn't spend it, she gave it away. We spent \$35 million of redevelopment funds and nothing matches and it is a mess downtown and money went everywhere it shouldn't have gone to. The point is that you don't have one place left in town to build a decent development and the one place that you do have in the downtown area you want to contaminate it with a probation office. The chief of probation is here today so he is probably here to defend his department but there is really nothing to defend; it is what it is. AB 109, Prop 47 all of it is what it is. We already know that our crime stats in Banning are out of control, crime stats reported for Riverside are out of control, and in LA County the crime stats are reported out of control. Now we've got 6,000 of the first 50,000 that will be released from federal prison between October 30 and Nov. 2, 2015; early releases into the city. He knows that probation is here and is going to be here because we need the probation department but do we

need it where it is. There are other places in town where it can be built. We don't need to draw their clients to that area. Those are not the kind of clients we want. We already have the County sheriff dropping their prisoners off out here three to four times a day with some in front of city hall, some at the bus station, and some all over the place up on Ramsey. We have County buildings from 22nd Street to Hargrave; why aren't they all confined to one. Why are you going to allow your legacy to be that building? You got angry at this group of people once before but he doesn't see anybody in here saying the opposite. He doesn't see anyone cheering this building on; listen to the people. You don't know that is better; you really don't.

Linda Pippenger resident addressed the Council stating that according to the recorded documents when this property transferred several years ago there was a Deed of Trust recorded, there was a Promissory Note but she was just wondering if the City ever received any payment on this property. The Deed of Trust was for \$1,020,000 and normally when you record a Deed of Trust you have payments.

Jerry Westholder resident echoed what Mr. Peterson's said and in being in law enforcement for over 20 years he knows exactly what probation is and exactly what it will do to downtown. He presented documents to the Council from the Grand Jury of Riverside County about AB 109 and presented documents from Los Angeles County and Los Angeles Times about AB 109, Prop 47 and this Council has refused to listen. He does not believe that this is a Banning project; he believes it is a County project because of all the County buildings that we have in Banning. Since he has moved here the jail has tripled in size and is planning on growing more. The problem is that this is not the best thing for Banning and he knows how well we listen because when he served on Council almost two years ago they voted to change our motto back to "Stagecoach Town USA" and as long as he has been coming here we still see "Proud History, Prosperous Tomorrow" and it has yet to be changed. The only time he has ever seen anybody speak in favor of this project in the last two years was when a gentleman ushered in several little old ladies who obviously didn't know what they were doing said yes they were in favor of the project. But none of them could articulate why they were for the project, none of them could articulate the benefit it would give our community, and none of them could articulate how this is going to be a good thing for Banning. He understands that we make decisions and sometimes our decisions are wrong. We just need to back up and just go to square one and start over. This is a County decision and not a Banning decision and it is not what the people want. He encouraged the Council to say no to this project.

Rick Pippenger citizen said he agrees pretty much with what everybody has said; we don't need any more government buildings. There are no tax dollars, no sales tax; nothing. Originally the project was supposed to generate sales tax but due to Takata doing what he did he thinks he should have been prosecuted, in his opinion. We need buildings that generate tax dollars and we need money in the city. When the Council figures out their budget and tries to figure out where the money is going to come from, it is not going to be coming from these guys. You might want to check their record in Texas also.

Don Smith said he fought many a fight with some of these people when he thought the decisions being made by the Council were not well representative of what the public wanted. He will probably stand here alone because he doesn't agree with most of what has been said. When a decision was made to build a courthouse with six criminal trial rooms it was a known that probation would have to come here as well and going to have to be near the courthouse. It

doesn't mean it has to be on that site but it is the only site where they need your permission to build. They could pick any other vacant land on Ramsey Street between here and Hargrave and build without your permission because it is just allowed under the code. The only difference about this one is that you own the land. Are more criminals coming; he doesn't know. Certainly the trend of letting people out could lead to that but that is going to happen regardless of where we build our probation office. The probationers don't commit their crimes in probation offices. In fact they do their best to stay away from the probation offices because that is where their probation officers are who could put them back in jail. More probation officers will result in less crime in Banning. Criminals move to where they can afford to live so our low income housing that is a problem and to some degree that is why they move here. He believes that since this building is going to be built somewhere and no matter where it is built it is not going to generate any sales tax revenue whether it is in this location or across the street or directly in the empty parcels directly east of the courthouse. It will generate, because it is a rental property, property taxes. It is not that he wants a probation office but the County of Riverside needs a probation office and they need one near this courthouse. We need to find a place to put it and we need to decide whether this developer can give us what is being promised; not this building but the other buildings. But the argument that we don't want the probation office there; he doesn't get the argument.

David Ellis addressed the Council stating that the Council should be familiar with this document except for Councilmember Moyer. He gave a copy to the Council and said it is pretty self-explanatory and read from the document (see Exhibit "E") in regards to "bias". He said that he has reviewed many Council tapes as to where all the Council stands: We know Councilmember Miller is against it, Councilmember Welch is for it, Councilmember Franklin is for it, and have heard that Councilmember Moyer is for it. He continued to read the document and strongly recommended that each and everyone one of the Council seriously consider what this says because they are prepared to file civil suits if the Council continues.

Mayor Franklin seeing no one else coming forward closed the item for public comments and asked staff and/or the developer to comment on the questions asked.

City Attorney Laymon said that there was a question raised as to whether the note has been paid to the City and whether the City has received money under the note and the answer to that is no. The note is currently delinquent. The current proposal would forbear on any type of foreclosure process on that note pending construction of the project and basically sets a new payment date. She wanted to make clear to the Council and the public that the City won't get paid under the note. The City does not get to keep any money that comes to under this note because it is not City property; it is former Redevelopment Agency money.

Councilmember Miller said didn't he hear the City Manager say that the City does get 17% of that. City Attorney Laymon said she didn't know what percentage the City would get.

Councilmember Welch said that Councilmember Miller is correct in that it is 17% and it is split amongst schools and other entities. City Attorney Laymon said whatever is paid on that note goes to the taxing entities.

Mark Hake, Chief Probation Officer for Riverside County addressed the Council stating that he knows that there are concerns about his department occupying space in this project. Those

concerns are certainly understandable and he hopes he can alleviate some of those concerns. He applauded the Council for welcoming the court facility in Banning and certainly it is a wonderful addition to the city but with expansion of court services comes the need for other elements of the criminal justice system to also expand and the probation department is one of those entities. Typically their officers are in close proximity to the court and they have 12 offices across the county and a vast majority of those are in close proximity to the court and also have some in shopping centers, near libraries and in areas with churches and in each one of those instances they have not had a negative impact on those communities. Essentially their officers provide supervision services to juveniles and adults who have been granted probation by our superior courts or who are under supervision due to the recent criminal justice realignment. On any given day across the county they are responsible for supervision somewhere in the neighborhood of 13,000 adults and 2,800 juveniles. Their current Banning office is located on Alessandro in the old court facility and have occupied that space for somewhere between 3 to 4 decades. They have 13 staff in that location and on a daily average they have approximately 20 visitors. Those visitors are made of up of their clients who come to visit the office either in route to or following their court appearance. The others who come are juveniles who are under their supervision and their parents and also offenders who are required to report to them. The folks that do come and show up in their offices are in compliance with their terms of probation and like it was said earlier people don't come to probation to be arrested. Their Banning office supervises 391 adults from this region and approximately 62 juveniles. Over time as the Pass Region of the county grows they anticipate also needing to add staff to address supervision workloads that typically come with growth. Their new office could accommodate up to 30 staff and will also include large meeting and training room space. As for concerns regarding increased crime around probation offices part of their mission is to protect the public and they do that by providing services to offenders in order to assist them from further criminal involvement and also do that through accountability measures and make arrests when necessary. His desire is to partner with the City of Banning in ways that will improve the city and their department is certainly interested in insuring that your project is a safe location in the city. They are committed to making this a relationship where the city is pleased to have their offices and staff in the community.

Alex Leon said that in regards to Texas any development that the Vanir group of companies, its affiliates or subsidiaries have been a part of they have completed their development obligations and have completed their developments. With regard to Texas that was not part of the Vanir group of companies or its affiliates.

Vincent McLaughlin supplemented that the problem in Texas was in 1989 more than 25 years ago and really has no bearing on the future management, current management, current ownership, current financial standing of this company or the current ability of Vanir to complete this project. He said in regards to the issue repayment and getting that 17% back into the City coffers right now without authorizing this transfer there is no plan to get that money back into the City or repay the State. If this transaction is approved today, not only will Banning Office Ventures be obligated to repay that note by August 1 of next year but Vanir Group of Companies which is the parent company of Vanir Construction Management, Vanir Development and all these single asset entity projects will be obligated to repay this debt so there is a major assurance here that it is going to be repaid. Last but not least there was kind of a borderline defamatory allegation made by former Councilman Westholder that something nefarious went on at the County involving Vince Yzaguirre, a former Vanir employee. Both he and Mr. Leon were involved in a former joint venture with JMA and that joint venture was not formed in March, in

was formed in October of 2013 and they were invited to participate by JMA because of their experience with county leases and their county relationship. They bid in the ordinary course of business to win that project by responding to an RFP and even though Vince Yzaguirre is an employee of the County he was a former employee and recused from having any involvement and they had no contact or communication with him regarding this project. So people can take bits and pieces of fact and try to spin something that sounds nefarious but the reality situation is that this is a straight forward transaction that they won in a competitive bidding process and won the probation lease and subsequently won a lease for the DA's office.

Mayor Franklin said for clarification have you heard of retailers saying they won't go there because the probation will be there. Mr. Leon said no. As a matter of fact they like the audience and they like the buying and purchasing power that goes along with it.

Mayor Franklin said one of the things that had been brought up also had to do with a grocery store and the fact that it was in HdL's report also. Is that one of the groups that you are looking at it? Mr. Leon said he has not discussed this project with any grocery stores.

City Attorney Laymon said in respect to bias there is, of course, as the Council knows a doctrine of bias out there. Mr. Ellis was correct when he said that certain statements in favor of or against a particular project may give rise to allegations but whether or not the standard of bias is actually reached are extremely fact specific and the analysis that they would have to do to make that determination. The standard is pretty high and basically a standard in which you would have to demonstrate either through comments or actions that there is no amount of evidence that could possibly be presented to you as an individual that would change your mind with respect as to how you are going to vote on a project so she just wanted it to be clear in the Council's minds as well.

Mayor Franklin said that there was a comment about an illegal contract. City Attorney Laymon said the illegal contract allegation or comment was made related to Mr. Takata's change of use of what we called "the hotel parcel" to a commercial or office use that would allow the probation department. She believes in 2014 that action was brought back to the Council and was actually ratified by formal action of the Council.

Mayor Franklin said one thing that did come up was in regards to the historical factor and she believes that there was a group working on the historical piece.

Don Smith said he has no idea what the changes were but the original proposal had both requirements for Art in Public Places in two locations and there was actually a monument to the San Geronio Inn with information about the inn on it.

Mayor Franklin asked if staff recalls with the design of the building was it approved by both the Planning Commission and the City Council.

Acting Director Guillot said that the entitlements were approved by the City Council due to the development agreements that went along with it and the Planning Commission made their recommendations.

Dorothy Familetti-McLean said Vanir talked about the probation department as an anchor. We have a giant anchor downtown and it is the courthouse. She doesn't know of any business in town that is thriving because the courthouse is here.

Mayor Franklin opened public comment briefly.

Diego Rose said he said all the argument over probation or no probation he thinks is kind of missing the point. He gets that we already have kind of a legal and judicial system going here and he really doesn't have an issue per say with a "probation department". We already have plenty of vacant strip malls along our avenue here and those buildings have gotten redevelopment money and have already been worked on so we already have a little bit of strip mall going on here unfortunately now we are going to get ready to add some more strip mall design here and it is really quite ugly and doesn't go with our theme whatsoever and whether or not you want to move the probation department a couple of blocks over or not and increase the size of it slightly he thinks that we are missing the point at least from his perspective. You are creating a government block here. You are not creating an industrial block by any means. You are not promoting business. He wouldn't move his business next to a probation office to support the staff at the probation department; that would be foolish. We are already not doing well with what we are moving in here. You are not bringing in highly paid professionals who want to spend a lot of money; that is not what is happening. That is not the complaint. You are developing a strip mall and you are putting it in your downtown and you are trying to put a stamp on it like it is going to recreate something down here and revive the area; it's not. Now if you want the anchor building to be a probation department that is on you and if you are banking on other businesses wanting to just jump right in there because that is your anchor he doesn't understand where this business concept is coming from but it is kind of a failed one. Everybody is focusing on some of the wrong issues.

Regina Johnson Blanche said she traced her African-American, Native-American ancestry history back to 1892 and she found some information that might kind of be interesting as she was doing her research for the city of Banning. She said she tried to present her information to the Record Gazette for historical records, she has tried to go to the historical document place here on San Geronio to bring her information and it was rejected. She thinks it is information that would be important to all this development and will bring information at a later date.

Jerry Westholder said he wanted to make it clear and understands that we need probation but not in the location that we are choosing. That was not what was presented to the public when it was originally given to us. If he remembers correctly when Mr. Takata signed that agreement it was under the threat of lawsuit. We had to unanimously make the decision to go along with it from the change of hotel to offices and that was the reason it was made to protect the City because we didn't have enough money to engage in a long-term suit in that respect. The reality of this is that this was not what was presented; it is not what the citizens want. Why can we remodel the old courthouse for probation? Why can't they build on an off-Ramsey site near the courthouse?

Chris McCallum said that there is a piece of property that is right next door to the property that we are selling and that is up for sale for \$1.5 million. If we revisit this in the future, maybe Vanir's can take a look at it too because we can also expand that zone pretty easily if it is a good deal. This is the future that he has to look at and he doesn't know if he is actually going to be here when it comes because we have been waiting quite a long time. He doesn't want it to last

one more day to be honest and wants to break ground and move but we really need to look at this and do it right and make the people response. Let's be responsible to the community and the citizens and the taxpayers.

David Ellis said that there was a situation he thinks where the District Attorney was going to sue Vanir if they didn't get this project.

Mr. Leon said he is not aware of that conversation ever taking place, ever.

Mr. McLaughlin said that they have a contractual commitment with the County to build the probation and provide that space and they were the winning bidder on the DA lease so they are concerned about their legal exposure to the County and have they been threatened, no.

Councilmember Welch said that he wanted to confirm the comment that Mr. Ellis just made. That was a comment used by a previous person trying to build the project. That comment was made by Mr. Pearlman early-on and he is pretty sure that Vanir probably didn't know the comment was made.

Mayor Franklin asked for comments from the Council.

Councilmember Welch said that there has been an awful lot of comments made and questions asked and discussion and doesn't know what else he could add to the situation. He knows it is very passionate for residents in the city. He takes a little offense to some of the comments that have been made about their minds being made up. This mine buster with this project has been going on for three years and not just tonight or last week. Are we wanting projects downtown; absolutely. Are they going to fill all the needs of the residents in Banning; absolutely not but somewhere along the line this process must get started. He really has trouble with the comment made earlier of us continuing a strip mall in downtown. In his opinion we have an awful lot of available storefronts still downtown and they are not strip malls but very nice little units that can be used very well for specialty shops. Those have been empty for a long time even with the effort to get people to fill them. Keep in mind that the total future for the development of Banning is never going to hinge on one project. It all has to fit together and we need to work together and we have not done our due diligence with respect to this town and he was one of the people that came back on this Council that wanted us to continue to be called "Stagecoach Town USA" and he still does. That doesn't mean that Stagecoach Town USA has to be represented by every corner of our community. We are not really selling the treasures we have here now. He extended his congratulations and compliments to the Stagecoach Days Committee this year because they have done an outstanding job and are starting to make a dream come true. That arena could never continue to exist on one event a year. Stagecoach Days weekend could never continue to exist. He thinks this committee has the right answer. The same thing is true with the progress and growth of our downtown area. Councils in the past have taken a big hit on how redevelopment monies were used. Based on what was available to help invigorate the downtown there was a real effort on past Councils to make that happen and it didn't happen all the time and it is not going to happen all the time in the future. He is not afraid or concerned about the expansion of one or two government buildings that are supportive of a courthouse that this community let happen 6 to 8 years ago. People really didn't fight the courthouse coming in. We didn't have an uprising in the community to say they didn't want it. That courthouse is a Mid-County Justice Center and the same size as the one in Riverside. The support units must be here

and probation is one of them. This one building is going to accommodate what is needed to make our justice system work here but it is not the end all to our downtown area. He really differs on opinion, with all due respect, with several people about the probation office being a deterrent to customers and business downtown. We want a grocery store and we have one and lets move everybody, governmentally wise, east of San Gorgonio in a block or two to get it concentrated and free-up our downtown which has traditional buildings available to us in our downtown area. He have had an awful lot of conversation on probation and he knows that there are some concerns but based upon the history of the probation departments in Riverside County he is hard put to seeing this being such a very large concern or deterrent to our downtown. It is not the end-all and it will bring jobs downtown and they will spend money Monday through Friday. We don't have that much money spent downtown in our area right now on weekends and the biggest draw we have is the Fox Theater in downtown unless some of our public groups are putting on performances and then we have a nice turnout downtown but it is a one-time event. He has been listening to this for three years and has been accused of some things even read from this podium here that are absolutely not true. He thinks that there were read there because people thought he had already made up his mind on this project which he had not and he was falsely accused of some things which just breaks his heart. When you start picking on individuals instead of expressing your concerns about projects and he compliments a lot of them because you do that but there are a few that don't and when you go after individuals all you are trying to do is sideline the real issues and he does take offense to that. If he has offended anyone, he apologizes and you will never hear him put down individuals. Do we get tired of hearing the same tune over and over, yes because it is sort of like listening to the bagpipe every day; you get tired of that too. Is there a frustration level on any individual, yes and he does have one but it is way in the backseat. He doesn't really appreciate personal attacks especially when they are unfounded and the Council gets accused of not thinking things through and making decision without good thought. That has nothing to do with this project but he just wanted to clear the air.

Councilmember Miller said there are so many facts he doesn't know where to start but let's start with the fact that this is not an ordinary project. It is not an ordinary project where somebody comes up and says I own this property and I want to build this on this property. This is a redevelopment project which means that the City owns the property, the City invested in that property and the City said I am going to spend the money to purchase that property in order to get something great for the city. Nobody does redevelopment work without expecting something exceptional as a result. If this project came forward as an ordinary project and the Vanir Company said we own this property and there is nothing you can do about it except to make sure we satisfy the zoning requirements that is one thing but this is not that type of problem. This is a problem that the City said we want to redevelop that area as something exceptional that will bring something exceptional to this city. Was the original project proposed by Pearlman exceptional, yes and the whole Council agreed on that. The new Council agreed on that and that is not the project. That is not the exceptional project that has been brought here today. What has been brought here today is a project that, he doesn't care what the developer says today, the developer said at the beginning we do not want this project. Whoever heard of a project where the developer does not want it? The developer said we have a contract with the County and we must build a project for the County. We must build a building for the probation office and for the District Attorney's office. We don't have the rest of the project and the rest of the project is no good and even worse than that look how ugly the project is. It has all sorts of "gingerbread" on it; that was their word. There is gingerbread on this nonsensical project; we don't want that.

Well the Council said you've got to build the rest and they said okay if we have to build the probation office building to satisfy our contract with the County yes we will build the rest. Finally the Council agreed to have somebody take a look at this project and see if it actually makes sense. The Council did that for the first project proposed by Pearlman and they came out with a glowing report and said the amount of sales tax, the amount of property tax everything is going to be great for that project. Here we have a report and it only cost \$8,000 and it is obvious what the results are and he points out all sorts of things that are wrong with this project and he says if you want a project that is any good, you've got to change the project. This means that this project is not the outstanding project that this City invested all its money and all its effort into. As Councilmember Welch said we have spent years on this. The fact that we spent years on it doesn't mean that we are desperate. The fact that we spent years on it means that every step has not been successful and for us to say at this stage we have spent so much time on this let's get this building over with, let's get the downtown started; that is nonsense. As Mr. McCallum said this city has been here for a long time and it will be here for a long time and whatever is built there will be there for the next 60 years. If we abandon our hope for the future for this city by saying that we have to build something, then we have abandoned the city. What is the policy for this City and what is one of the statements for this City, "I believe in Banning." He doesn't believe that anyone believes that this is going to be a great project. If you believe in Banning you would say this project which the analysis says is not good, that is not the future of Banning. We want property tax and again the report says that the project as produced does not produce enough property tax; we want sales tax. But most important in his mind is something called "the quality of life". There is absolutely nothing in this project that improves the "quality of life" of Banning and why did the City invest \$3 million in this area to improve the "quality of life" of our city and when the Council finally votes to approve this project what they are saying is that they do not "believe in Banning". They do not believe that this City is capable of something really good. He believes that if we wait a few years somebody will come up with a project that will improve the quality of life and make Banning a city that it can be proud of. He said he thinks he said enough about that because he believes that it won't make any difference what he says but he has to try to make the point that this city deserves more than this. While he is on a new subject Mayor Franklin said that she votes always for the majority of people and the majority of the people in this city want this project. He absolutely cannot believe that statement. Scientifically this is a city of 30,000 people and if you want to be able to say, "I know what the majority wants", you have to ask 797 people what they want otherwise you just get a little sampling that doesn't mean anything. Now Mayor Franklin talks to a lot of people and she may have talked to 797 people but he doesn't believe that she really asked 797 people individually what they believe. So honestly he doesn't believe exactly what the majority wants and he doesn't believe he knows exactly what the majority wants; we both have a feeling. Mayor Franklin said a small group of people speaking here is not the majority. That is certainly true but most of the people in this city are busy and don't have the time to look at this and that is why they elect the Council because they said they would take the time to look at all the details so the people count on the Council. Who is it that really besides the Council that has looked at this carefully; it is the people who come to the Council meetings and talk. In order to come here you have to give up your lunch, you have to sit here for hours listening to this boring stuff and you have to prepare what you say so the people that come here to him are much more important than the numbers. That means that they have looked at this thing and have analyzed it so when we get 8 people saying that they disapprove of this project and one person saying they approve of it, to him that indicates that those people that have looked at this carefully do not approve of this project. When it comes to the statement by Mayor Franklin that she talked a majority of people

and they approve it whenever you poll people you have to be very, very careful. If he asks somebody, "Isn't it great that we are going to have a project downtown that is finally going to fill up an empty space and it is going to bring in some property tax", that will guarantee a yes answer. If he says to those people another question, "Would you like to see downtown a probation office that is going to occupy that area and it is not going to bring in any sales tax because it is all office buildings and it is not going to do anything that is going to bring people downtown as the original project promised us", the answer is, "of course not". So when we ask people what they think of this project we have to be very careful to really try to get a question that will give them an answer that is of value to us. He said that he has said to people in passing in Sun Lakes, "Have you heard that the K-Mart building which is empty will be the new probation office" and to him that is a fairly blank statement and the outrage of having a probation office nearby was just overwhelming. Now if he takes that and says the same thing about a probation office downtown the same thing has to be true in his mind that there is something about a probation office whether it is correct or not but the perception of a probation office is a negative one so to him that is an important point; it is a negative one. If this was a separate project that just came to the Council he would say it satisfies the zoning requirements and probably he would have to accept it. He said that this is not a normal project. This is a redevelopment project that is supposed bring something good to our city. Something that makes us proud of our city and this project does not do that and the analysis says the project is not a good one.

Councilmember Moyer said a couple of months ago Mr. Miller said he would like to push this project back and take a good look at it and have an economic developer expert review the property, review the project and give us an analysis and he agreed with that because he wasn't on the Council the last time that happened so he made a motion at that time to go ahead and extend to the end of October to give Vanir a chance to get JMA totally out of package and to get some negotiations going and at the same time that motion included asking our EDA experts to analyze the project, analyze the property and give a good rundown on whether they thought the project was worthy or not. Now we got that report and received it late yesterday but he can say in reading it that it is telling us that if this project is done to completion we can expect to have an additional 250 to 358 jobs downtown. We can expect to receive somewhere at \$90,000 and \$118,000 in sales tax annually and approximately \$70,500 worth of property taxes. He knows that Mr. Miller in his discussions back in August was saying that he wanted sales tax revenue and this project according to ECONSolutions by HdL who are recognized experts and deal all over California with many, many communities their final analysis say, "The Village at Paseo San Gorgonio is an important project for the City of Banning. The project is envisioned to help anchor and revitalize downtown Banning. The Village at Paseo San Gorgonio has the potential to produce needed revenues for the city, along with employment opportunities within the community." So the experts have said that this project with some tweaking, they would prefer to see a mixed use building that was going to be retail downstairs and office buildings upstairs be changed to a one-story retail building only and that is the only major tweak they said was wrong with this project. They also analyzed the finances of Vanir and found them to be extremely capable financially of completing this project. That agrees with our City Attorney's office who also analyzed Vanir's financial capabilities and came up with the same conclusion that they were financially well off enough that he could finish this project easily which is something we never had with JMA even though he hardly dealt with him at all. He is looking at a potential of 358 jobs downtown, granted many of those probably will be people who don't live here but many of those people will maybe move here if we ever get some housing inventory to be closer to their

jobs. Mayor Franklin pointed out earlier today, for example, one of the new judges at the courthouse is now trying to buy a house in Banning to be near his work and he can see that happening. He would love to see almost \$200,000 of sales tax and property tax money coming into our city and not see that property sit there for another 5 to 6 years while we play around with what are we going to do with it. He said he didn't totally make up his mind about this project until he read the report today and he thinks we just messed around with it so long that we now have a real viable contractor worthy of it financially, worthy of it experience wise and so forth that we can get this project off the ground. He would admit that maybe we would like to do some tweaking on the outside architectural appearance and so forth but he thinks now we have a basis we can move on.

There was some dialogue between Councilmembers Miller and Moyer regarding the numbers just read in regards to jobs and the recommendation that was made in the report are based on the changes recommended for two of the buildings.

Mayor Franklin said that Councilmember Miller talked about how she goes out in the public and she guesses that is a bad thing because she keeps getting dinged for it both in writing and both in public. But she did go out and talk after the first time around and again after this came up the last time and she talked to people she has never seen before. She went out to the students that she deals with because they are our future and had a chance to talk to over 50 of them. She talked with over 80 people and these people were made up of seniors that she happens to see and she doesn't know them, she went out to the football field while they were practicing football and cheerleading and walked and talked to every parent she could find. She also talked to some of our seniors and in particular, senior women because she wanted to know if there were concerns. She said that Councilmember Miller also spoke about how it makes a difference on how you ask the question and she would agree that it does make a difference and she tried to be very objective in the way she asked the question and it does make a difference on how you tailor your question to try to get the kind of answers that you want. The kind of answers she wanted was how do people really feel about it and how do they feel about the project, how they feel about the probation department. So when she asked them about how they felt about a probation office downtown some didn't know we even had a probation office here before. When she told them that it was across the street from the post office they said what was the big deal then. Of the 80 people that she was able to actually make a check mark that she talked to there were 6 who were against it, 3 of those said they thought it meant we were talking about more people moving in that needed probation services and when she told them they were talking about moving it and the people that would be coming in through the probation office would be more affiliated with the courts they wanted to know what the issues was. In talking to people it took here a couple of weeks and some of the things that came up really didn't deal with the probation office. Some of the things she heard was that they were very concerned about the vacant land downtown, they were tired of seeing vacant property and wanted to see economic development come to town. They wanted to see more jobs here; they wanted to see us be able to develop an area that didn't have just vacant property and vacant buildings on Ramsey Street. When she asked them if they thought about coming to the Council meetings some of them said they were too busy, some said they didn't like coming out after dark, but what concerned her more than that were the people that said they feel intimidated to come down here. They thought our Council meetings were too negative, and some even said they were scared to come to a Council meeting because they thought if they made a comment that didn't fall in with what the majority of the audience said that they would be attacked by making their own opinions. We talk about our future and that is

why she specifically went to some of the young people and some of the ones that actually walk by this vacant property every day. Some people she talked to were also said they can't find the kind of homes they want here. They are moving to Beaumont because we don't have new housing stock. We need to have people who are professionals here willing to say they want to live here so that we can raise our economic base so that we can raise our median income and that will in turn bring more businesses here that we want. When we talk about why with the HdL report that we are not going to get some of the businesses we want because we don't have the base for it and that was already addressed but we all want more than what we have because we do want a lot more for Banning and do have to take steps to get there. Some of the other things talked about were whether or not businesses would come here. We already have one business that came here specifically because of the courthouse, Zacatecas and he is looking at buying more property to add another business here if possible and wanting to buy the property next door to where he is because he wants to be able to expand. So those kinds of things do bring economic development to our downtown. Are there any guarantees if we were to agree with this project today? There are no guarantees in life. We do not have a crystal ball as to where the City is going to go in the future. Yes, she has talked about wanting to be near her grandchild who lives in Virginia but the reality is that her husband has been here over 50 years so she will probably be here awhile longer. But overall when we look at what we need to do we have to look at what is good for the whole city. She said that she respects everybody who came here to speak. Not only today but every time they come up to speak at the mic and she hopes she gives them the respect that they deserve because they are a resident in our community willing to voice their opinion but she also has respect for those people who are too scared to come here and want to have a voice also. She has talked to people who live on the east side of Banning and asked them what their concerns were and it gets back to economic development. We all have our opinions of what that is going to take. Talking to people who have probation offices and courthouses in their cities, other cities wanted the courthouse knowing what was going to come with it. That is not a reason for 22 cities to be vying for the courthouse because they thought it was going to be a bad thing for their city and everybody knows that courthouses mean certain things are going to be near it. She did ask the question about whether or not it was feasible to have people living upstairs to have more mixed use here like you see in downtown Riverside. That is not a good use based on what we have here and in talking to our Planning Department those things have to be explored to find out what we can do. When you talk about whether or not we are already predisposed to what is going to happen she wanted to see what was going to come out in the report. She has changed her mind many times on different things based on what she has heard from the public as well as the information that is provided to them and it is not easy to be able to make a decision that may not rest well with the people that are sitting in front of you. Sometimes it is harder to be able to say no based on what you think is going to be best for the city. Sometimes she has voted in ways that she would have done differently in hindsight but a lot of times we voted in favor of those things that help our city move forward. Our city needs to grow both economically and with the kind of population that is good for all and we have a population that she thinks we are all proud of being very diverse. We have people that want horses and we celebrate that. We have people that want to live in more urban areas and we celebrate that too. And as a community we try to have a little bit of everything for everybody. No matter what we decide somebody is not going to be happy but overall when we look at how we help our city move forward we have to take a step like Councilmember Welch said. We have to start somewhere and we have been putting it off and putting it off and have nothing here and our kids continue to move away. She wants her kids to be able to come back and wants our kids to be able to have a place to work here and it starts somewhere here.

Councilmember Moyer thanked Chris McCallum on his work on the item that he passed out to the Council and he is not saying that some of this can't fit in with what Vanir is doing and maybe they can talk with Vanir later and go over the plan with them.

Mayor Franklin said maybe there are some things that maybe they can tweak and one of the things is even calling it Paseo San Gorgonio. She doesn't know if that is something we need to keep and something we have to tag for our downtown area. We can go back to talking to people and find out what can we do because buildings don't make the name of the city it is really what the people do in the city where we are.

City Attorney Laymon said the motion would be you can either take this as one motion or separate them out. The first part would be to approve the Master Transfer Agreement and Escrow Instructions transferring the project essentially to Vanir. The second motion would be to extend the existing design review expiration to a date of January 31, 2016. In terms of the name she thinks as part of the sign review that can be changed at any point in time.

Mayor Franklin said even bringing back the San Gorgonio Inn sign that was one of the things that she thinks they talked about before how we can tie that in and she knows that it went to the Planning Commission but maybe that is something that could possible come back if it is passed.

City Attorney Laymon said that they could discuss that with the developer.

Motion Moyer/Welch that the City Council approve: 1) Approve the "Master Transfer Agreement and Escrow Instruction" for Project Transfer to Vanir (*Exhibit "B"*) (Master Transfer Agreement)). This action would include approval of the following attendant instruments which are attached to the Master Transfer Agreement: a) "Assignment and Assumption Agreement and Consent" approving Vanir's assumption of all rights and obligations in re. the Project (*attached as Exhibit "B" to Master Transfer Agreement*); b) "Second Amendment to Purchase and Sale Agreement of Real Property and Joint Escrow Instructions" clarifying terms of the original Project, including new timeframes for project built-out (*Exhibit "D-1 and D-2" to Master Transfer Agreement*; c) "Completion and Payment Guaranty" by which Vanir absolutely and unconditionally guarantees both (i) repayment of the Note, and (ii) completion of the Project which shall be constructed, completed, equipped and furnished in a good and workmanlike manner free from mechanic liens (*Exhibit "E" to Master Transfer Agreement*); and d) "Subordination Agreement" to allow Project construction financing (*Exhibit "C" to Master Transfer Agreement*). 2) Extend the existing Design Review expiration date to January 31, 2016. Motion carried with Councilmember Miller voting no.

Councilmember Peterson returned to the Council Chambers at this time.

2. Amendment to Government Staffing Services, Inc. Contract
(Staff Report – Michelle Green, Deputy Finance Director)

Deputy Director Green gave the staff report on this item as contained in the agenda packet giving some back ground information and going over the new CalPERS retirement requirements.

Councilmember Moyer said to him this is a MuniTemps problem. We rely on them as the experts in dealing with these things. They are the ones that sent him to us. They are the ones that actually gave us a contract and they knew he had been moved into another position and still made to effort, as far as he has heard, to come back and say we need to compensate him more.

Deputy Director Green said basically the amount of money that is being asked for like she said is not additional charges, penalties or fees this is salary regardless of who would have informed us and had they informed us the City would still be required to pay it. It is not an additional fee that we are being asked to pay now, this is salary the City would have always been responsible for.

There was more dialogue between Councilmember Moyer and Deputy Director Green in regards to the contract with MuniTemps and the new PERS retirement law.

Councilmember Peterson said so what you are saying is that we are in violation of Government Code 21221(h) and that the City is out of compliance and when you say staff is recommending who is staff and who prepared the staff report.

Deputy Director Green said they didn't feel it was appropriate for Dean to recommend this himself so personally herself as the Deputy Finance Director and Rita Chapparosa as the Deputy Human Resources Director are acting in that capacity to recommend on behalf of the City and she actually prepared the staff report.

Councilmember Peterson asked if she had the correspondence from CalPERS and asked if she actually read Government Code Section 21221(h). Deputy Director Green said it was actually email correspondence and she didn't bring a copy but does have it in her files and can print and provide a copy and yes she did read that Government Section and brought a PERS circular letter also that documents the requirements of the law as well.

Councilmember Peterson read it for the public so they could actually hear it (see Exhibit "F" attached). Did you hear anywhere within that law 21221(h) about the annuitant being paid a specific wage?

Deputy Director Green said that in the part that he read it does reference the maximum but in addition to that she has a post from CalPERS and it does discuss how the PEPRA (Public Employees Pension Reformation Act) rules tie in to the PERS retirement laws as well. And in their interpretation which again they are using with the city, it states under retiree compensation, "The compensation paid to retirees cannot be less than the minimum nor exceed the maximum monthly base salary paid to other employees performing comparable duties". So under PERS law in conjunction with the government code they have set the minimum and the maximum.

There was further dialogue between Councilmember Peterson and Deputy Director Green in regards to quoting PERS law, quoting the Government Code law, the CalPERS circular letter, the reference in regards to minimum and a maximum for retired annuitants, and the wage that Mr. Martin is current making.

Councilmember Peterson said he is not happy with the staff report because you have only given a half a loaf of bread. What he sees here is nothing in this staff report as far as what you are utilizing for justification to raise the pay and nothing that is relevant to the request. Actually,

what he is seeing is that if you don't have something else to back up what you are saying it is basically almost fraud because you are trying to get the Council to approve an amount of money to give away based upon a misrepresentation of your staff report. And what he is reading is a misrepresentation and false information because that law does not say that the City is in violation of the law. It does not say to comply with the requirements of the law and it does not say that the City to be in full compliance in order to comply with government code and you reference it like four times and there is nothing in that law that you reference that makes your request or justifies your request. In fact, it's really undue influence to the Council.

Deputy Director Green apologized for not attaching the email from the results of the administrative review. She does have a copy of it here. When she quoted the section that she did quote that was based on the PERS response to the administrative review.

Councilmember Peterson said but it is really talking about the number of hours that they can work and he shall not get paid less than or a maximum so he doesn't think the staff report fits the request at all. In fact, it is a poor staff report. You cannot come to us and say I want you to give the City Manager \$20,000 based upon this reason and the reason is not there.

Mayor Franklin asked if he would feel more comfortable about getting the actual documents before making a decision and would he feel better about continuing the item until additional information is provided.

Councilmember Peterson said absolutely he would like to get the documents and there is no way he would approve this. The only thing that he would do to this that if it went through he would refer it to the District Attorney's office because this is not right.

Councilmember Miller said in regards to Councilmember Moyer's statement as to who is the contract with; is it with Mr. Dean Martin or with MuniTemps? Deputy Director Green said it is with MuniTemps.

Councilmember Miller said if our contract was with MuniTemps he would agree completely. Our contract with MuniTemps is a contract with MuniTemps. If Mr. Martin is being underpaid or overpaid or not paid at all that is his concern with MuniTemps. In his opinion he is ready to vote no on it because the contract is with MuniTemps. But there are two aspects to this. One is the contract and the second one is the fact that he and the rest of the Council have been continuously trying to for the last three years to have complete staff reports so that we do not have to rely on anyone's interpretation of the facts. **That we have the facts present here so he would therefore like to make a motion to reject this payment because MuniTemps is paying it and he still would like to see back to this Council a complete statement of everything that has been written by CalPERS to our City.**

City Attorney Laymon you said to deny this at this point in time but then you mentioned bringing it back. Do you really mean to continue this to a date certain with a full report?

Councilmember Miller said no. He would like to deny this request or reject this proposal but he would like at the next agenda to have a complete list of all the documents by CalPERS on this subject.

Councilmember Miller said his motion is to reject this resolution and still have all the documents brought back to this Council for their review.

Mayor Franklin said as a point of clarification if we have no action would it be just like a report. Councilmember Miller said that is right.

City Attorney Laymon said she is still a little bit confused as to whether rejecting this now and then bringing it back at a later date is different from continuing this to a later date with a full report.

Councilmember Miller said he would like to evaluate the accuracy of this report based upon the documents from CalPERS and that is a separate item from evaluating whether or not to give this increase in salary.

Councilmember Miller rescinded his first motion and made another motion to: 1) reject this resolution; and 2) bring back this item with all the documents from CalPERS for the Council's evaluation of those documents. Motion seconded by Councilmember Moyer.

Mayor Franklin opened the item for public comments.

Don Smith said if he understands this correctly we hired a temp agency to provide us one of their employees to act as our city manager and our contract with the temp agency says here is how much we are paying, you the temp agency. He would guess as part of the next agenda he would be curious if I were you, for a legal opinion why if the employer of Mr. Martin who seems to be under the scenario is a different company than the City of Banning, is required to pay him a higher salary why they aren't the ones required to do so. That is his question.

Mayor Franklin closed public comment.

Councilmember Miller said that he always thinks that a question from Don Smith or the audience deserves some sort of answer. So his answer is that it is between MuniTemps and our City Manager and he is not interested in that and he doesn't think the Council is interested in that.

Interim City Manager Martin asked that this item be withdrawn.

Councilmember Miller said no because he wants to be certain that in every aspect the staff gives the Council all the background information. That is what he has been trying for for the last three years and he wants to continue that. So he wants to see the background information.

Interim City Manager Martin said he doesn't think withdrawing it precludes the Council from getting that information.

Mayor Franklin said we have two motions. One was to reject the item and the second one was to get additional information. So you could withdraw the item which would be the first motion and the second one would still be to obtain information to answer the question.

Councilmember Miller said he does not wish to withdrawn because he thinks we want to end this. If we withdraw it, it can come back again. If we vote on it, it is the end of it.

Councilmember Peterson said the only thing he wanted to tag on to Don Smith's question as an explanation and this is not intending to beat up Michelle or anything else but when he first read this he thought given the number of people that have fallen out of city hall over the last three years based upon bad staff report, based upon contracts, based upon a lot of different things and he really thought we had passed that point and then when the Council got this report and when he reference the Government Code to him it was almost a willful attempt to influence the Council to pass a resolution to give Dean a bonus or going away present under false pretenses and misrepresented; that was his honest thought. And he thought we can't still be traveling down this road and hopes that we are not traveling down this road. He doesn't care where this thing goes or where the Council wants to take it. He doesn't want to see these things come before the Council like this anymore and somewhere along the line it has to stop.

There was further dialogue between the Council and staff in regards to PERS doing an investigation and when it started.

City Attorney Laymon asked Michelle and Rita to refer this matter to Colin Tanner. She said she doesn't have the original contract and would have to see that. We would need to do some personnel research on the PERS regulations and systems. It is logical to her that MuniTemps would be on the hook if they made a contract that had a shortfall but she would be curious to know why PERS is claiming that the City is the entity on the hook for the PERS violation; they would have to research that.

Mayor Franklin said the first motion was to reject the proposal/or staff report. **City Attorney Laymon said a yes vote would be rejecting the proposed change in the contract amount of \$20,000. Motion carried with Councilmember Welch voting no.**

Mayor Franklin said the second motion was to bring the report back to provide backup documentation for today's report. Motion carried, all in favor.

Mayor Franklin said it is after 9 p.m. so we need to vote as to whether or not to continue with any other items that are on the agenda or end our meeting.

Motion Peterson/Moyer to continue the meeting to cover Item #5 under Reports of Officers and everything else will be continued to the next meeting. Mayor Franklin opened the item for public comment; there was none. **Motion carried, all in favor.**

3. Sex Offenders and Child Offenders Update
(This item was not discussed continued to next Council Meeting.)

4. Resolution No. 2015-92, Approving an Amendment to the Professional Services Agreement with Charles Abbott Associates, Inc. to include Engineering Services.
(This item was not discussed continued to next Council Meeting.)

5. Resolution No. 2015-93, Awarding the Construction Contract for Project No. 2015-91, ADA Upgrades at Lions Park and Rejecting All Other Bids.
(Staff Report – Art Vela, Acting Public Works Director)

Acting Director Vela gave the staff report on this item as contained in the agenda packet.

Councilmember Peterson said on this Community Development Block Grant (CDBG) he doesn't know if it was last year or the year before that money was taken away from Lions Park to put at Repplier Park in order to complete that project. Now we have this money still set aside for Lions and two years ago they talked about a soccer field in the grassy area to the west of the ballfield. He asked if there was any way to try to still work that soccer field in even without lights just being able to put in the grass and clean it up.

Acting Director Vela said it would be difficult to include that project with this project because it has already been taken out to bid and it would be a pretty hefty change-order. If he remembers right the last time they got a couple of proposals just for budgeting purposes the grading alone was like \$185,000 or \$200,000 and they would have landscaping, irrigation and sod on top of that. That is a project that they could apply for through CDBG but there are a lot of other grants that they could possibly look at.

Mayor Franklin asked that while we are working on it can we, like Councilmember Peterson said, just let them play there. Is there an issue with them being able to do that?

Acting Director Vela said the only issue is that it has been disked a few times so it is really in no shape to run on or kick a ball on. They can see what we can do to maybe get a roller or grade it down a little bit.

Mayor Franklin opened the item for public comments.

Diego Rose said he would love to see that but with a little forethought water is always an issue and park maintenance having to clean it up. That seems to be an issue and anytime that we want something done and yet we are already planning on expanding and putting in parks and stuff like that. He knows that light was made of about El Nino and possibly seeding but all those things combined actually give us some kind of resolve and some answers. Maybe another way to approach it that is outside of the bounds of going for grants and thinking outside of the box it might not be a bad idea to have someone go out there and grade it for us and even somebody in the community that wants to have a soccer field maybe could donate some seeds and maybe we could get it done for nothing with community effort.

Alex Diaz said that ever since he started working here about ten and a half years ago there has been talk about a soccer field being built. They have over 250 kids registered in BPAL for their soccer league and ran a soccer league four years non-stop. Jorge and he needed to take some time away from it but they are starting it up again. There is only one field in town that they can use and that is at Nicolet Middle School. Having a second soccer field in town would not only help them run a league with more teams but it would also help generate some income for the City because they have a population over 30 that are looking at starting a league here in town; they don't want to go to Beaumont. The way that they run their league here they are bringing in teams from Hemet, San Jacinto, Redlands and Yucaipa but because we don't have the opportunity to grow the league they are unable to.

Mayor Franklin closed public comments on this item.

Mayor Franklin said if the high school has soccer fields maybe the 2+2 committee, if they ever get a chance to meet with the school board, they can bring that up as an item of discussion because if we already have fields here it would be nice to use them.

Motion Welch/Moyer that the City Council: 1) adopt Resolution No. 2015-93, Awarding the Construction Contract for Project No. 2015-91, ADA Upgrades at Lions Park to Leonida Builders, Inc. of Glendora, CA for an Amount of "not to exceed" \$368,000.00 to cover and unforeseen project conditions, and Rejecting All Other Bids; 2) Authorizing the Administrative Services Director to make the necessary budget adjustments and appropriations for this project; and 3) The City Manager is authorized to execute the contract agreement with Leonida Builders, Inc. of Glendora, CA for Project No. 2015-01, ADA Upgrades at Lions Park. Motion carried, all in favor.

SCHEDULED MEETINGS - BANNING UTILITY AUTHORITY (BUA)

REPORTS OF OFFICERS

1. Resolution No. 2015-14 UA, Approval to Join the Santa Ana Watershed Project Authority Basin Monitoring Program Task Force.
(This item was not discussed continued to next Council Meeting)

BANNING FINANCING AUTHORITY (BFA) – no meeting.

ANNOUNCEMENTS/REPORTS *(Upcoming Events/Other Items if any)*

Councilmember Moyer –

- For the last couple of meetings he has been talking about the tragic loss of a young man on his way to school at the San Geronio railroad crossing and the need to insure that our kids can get to school safely. They have finally had a response from the school board and have a meeting set up for October 23rd where they can discuss these issues and get the 2+2 meetings going again with the school and hopefully come out with something positive on that and besides a safe way to school he can talk to them about soccer fields as the same time.

Councilmember Miller –

- He asked if all the Council received this notice from the toxic group. There is a meeting on October 22nd and for your information there is an EIR that is available and he has read it. It is interesting that Potrero has been reviewed and worked on for the last four years and to summarize everything, they are proposing new ways of purifying it but fortunately there is no Chromium 6 there and the slop of the land really makes all the contaminates go away from us toward San Jacinto. But the City really should have a response to this and he spoke to Mr. Martin about that.

Councilmember Welch –

- On Thursday, October 15th the Vet Expo is having a Job Fair at city hall in Beaumont. It starts at 10 a.m. to 2 p.m. This is not just for veterans but for veteran and anyone else looking for employment. There are about 18 to 20 people looking for recruits.

City Committee Reports - None

Report by City Attorney – Nothing at this time.

Report by Interim City Manager

- We have a Disaster Preparedness Meeting that we are planning at the Community Center on November 3rd from 6 to 7:30 p.m. and the public is invited. They will be discussing some of the City's efforts including efforts to prepare for the upcoming El Nino.

ITEMS FOR FUTURE AGENDAS

New Items – None

Pending Items – City Council

1. Discussion regarding City's ordinance dealing with sex offenders and child offenders.
(10/13/15)
2. Discussion of vacant properties and on Ramsey Street where people are discarding furniture.
3. Report on Banning Chamber of Commerce Utility Bill Issue
4. Workshop on legal issues (whistleblowers, harassment, personnel issues, consent calendar policy, more interaction with public, form of minutes,).
5. Attorney General Opinion re. Developer Impact Fees collected by hospital or other agencies.
6. Collection of Judgement re. Jim Smith
7. Discussion re. Time of City Council Meetings
8. Safe Walkways for student from the schools and signage.
9. Housing Element (10/27/15)

(Note: Dates attached to pending items are the dates anticipated when it will be on an agenda. The item(s) will be removed when completed.)

ADJOURNMENT

Mayor Franklin closed the meeting in memory of Scott Barnhart who was a 14-year employee of the City of Banning who passed away recently.

By common consent the meeting adjourned at 9:41 p.m.

Marie A. Calderon, City Clerk

THE ACTION MINUTES REFLECT ACTIONS TAKEN BY THE CITY COUNCIL. A COPY OF THE MEETING IS AVAILABLE IN DVD FORMAT AND CAN BE REQUESTED IN WRITING TO THE CITY CLERK'S OFFICE.

Marie Calderon

From: Melinda McNabb <dellandmelinda@gmail.com>
Sent: Tuesday, October 06, 2015 7:55 PM
To: Marie Calderon
Subject: Letter for reading at next City Council meeting

Dear Banning City Council, Banning Citizens, and most particularly Cal Trans,

Many thanks for your prompt attention to designing and making repairs to the Red, White and Blue Bridge overpass on San Gorgonio spanning the 10 freeway. On September 10, someone decided that the bridge was unsafe to have parking atop the structure. "No Parking" signs were strategically placed.

Since that discovery, you and/or Cal Trans, have performed a miracle. And in the dark of night, without causing any inconvenience to traffic atop the bridge or passing beneath, you have made the bridge safe for parking. We appreciate your making it a priority.

Whatever your method, thank you and Cal Trans for making the bridge safe for parking and traffic once again.

Melinda McNabb
Banning, CA
melindamcnabb@gmail.com

Marie Calderon

From: Frp2002@aol.com
Sent: Wednesday, October 07, 2015 8:48 AM
To: Marie Calderon
Subject: letter to be read at the next city council meeting

To all those involved:

At the last Banning City Council meeting, there was a shameful display of breakdown of decorum. The portion of the agenda set aside for public comments is just that: Public Comments. When Peterson went into his rant, he should have been immediately cut off. The mayor failed to do this. The legal beagle failed to do this. The Brown Act had been violated...severely. Prior to this, the Council has always found it convenient to hide behind the Brown Act.

There is a portion in the agenda at the end of the meeting for comments from the Council and City Attorney and City Manager. That is when Peterson should have gone into his rant. Instead, he just went on and bullied everyone in authority.

As for the content of his prepared rant, the Hammers, living within the sphere of influence of the City of Banning, have done so much more in a positive fashion for the City of Banning, which far outweighs the negative and the nitpicking of Peterson, that Peterson should *think* a little and say 'thank you' to the Hammers. The Hammers have had a positive influence on the City of Banning for many years, even prior to Peterson taking the \$15,000 gift from a Beverly Hills developer and moving from La Mirada to Banning.

In addition, in my letter last meeting, I asked a question of the legal counsel which went unanswered. So, I shall ask again. Does the Brown Act pertain to correspondence which is read publicly after Public Comments?

Fred Sakurai
Banning, CA
951-849-3027

Received 10-13-15
mac

It looks like the city council, as well as the public, continue to face relentless bombardment in form of correspondence from Charlene and Fred Sakurai.

Their accusatory letters keep attacking certain members of the City council, particularly Ed Miller and Don Peterson, and also the Banning Informer website.

In order to understand the Sakurai's obsessive fixation with the above individuals, one first needs to understand their political alliances in Banning, in particular their close association with former councilman Bob Botts.

For those not familiar with the matter, please let me explain :

We have all heard that over the last decade, the Banning Cultural Alliance received excessive funding of over \$1 million from the City of Banning, without there being any measurable benefits to our City.

As a matter of fact, this funding was so fiscally abusive, that a Grand Jury stepped in and called for a large portion of the money to be returned to the City. But, largely due to Botts' and other's intervention, the money was never returned. Instead, Botts & Co. made sure that Alliance received even more money – until the present council put a stop to it.

It is a matter of record that the Sakurais were at the heart of the Cultural Alliance scandal. None other than Charlene Sakurai was the Cultural Alliance' original founder and President. Councilman Bob Botts took on the role of Vice President.

Presumably, much - if not all - of the money pocketed by the Alliance flowed through Sakurai's and/or Botts' hands. The fact that the Banning Informer has exposed those incestuous connections explains their hatred for that website.

But the financial ties between Botts and Sakurai go even deeper. Charlene Sakurai acted also as the campaign treasurer for the Botts campaign during his bid for election to the City council.

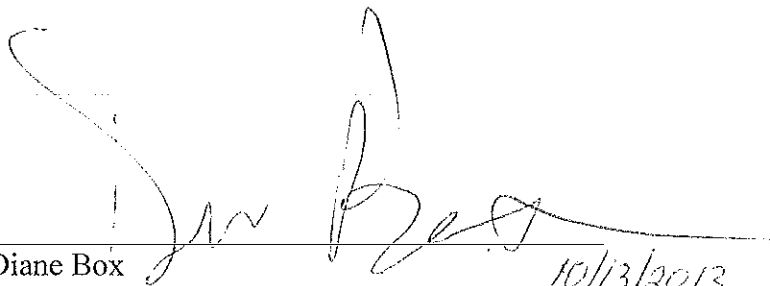
And also, isn't it interesting that it was also Botts/Sakurai who – a few years ago - were the premier cheerleaders for the infamous toxic sludge burning plant, being proposed for Banning?

As we can see, the Botts/Sakurai rabbit hole goes very deep. No doubt, the former councilman and the Sakurai's are tied at the hip. They follow the same agenda and have the common goal of selling out the interest of the people of Banning for their own benefit.

As we know, Bob Botts resigned from the council 2 years ago. However, it appears that the Sakurais continue to do his bidding. They appear to be a proxy for their old friend and comrade Bob Botts. The Sakurais seem like nothing more than "talking heads" for Botts.

Let's connect the dots : if someone gets as angry as the Sakurais do, it is always about money. Money that, thanks to our new council, the Botts/Sakurai enterprise can no longer get their hands on.

Let's keep it this way !


Diane Box
Banning resident
10/13/2013

Received 10/13/15
mac

To: Mayor Franklin and Council Members
From: Dorothy Familetti-McLean
Re: Village at Paseo San Gorgonio Project
October 13, 2015

Dear Council Members:

The Pearlman Project has been before you for several years. Pearlman did not do what he said he would do. It is time to cut ties with him and the Vanir Company. Vanir may build a probation dept., but that is not what the public wants. The original intent for this space was not a probation dept. and council members are accepting anything to get this project started.

You people were elected to act for the public, not to serve your own loyalties. In addition, the public wants to be listened to and their views taken into consideration.

Mayor Franklin, it is known that you brought Pearlman here and in doing so, he received many financial favors from the council to the tune of several millions of dollars. It is o.k. to review your decision and find that at this time, it is not prudent, practical, or professional to side with him or Vanir. The public does not want a probation dept. We want something that will enhance our town.

If this entire project is approved, it will probably end up like the Banning Business Center...it will be started, but the project will not be finished for lack of businesses wanting to buy in. Have any potential tenants signed up so far?

Who will want to come downtown Banning w/ a probation dept. there?? Criminals, to check in and check us out?

You council members will eventually get off the council, possibly leave town, to be with your children and grandchildren, where you will not be reminded of the improper decisions that you have made, or just go back to your former positions that have nothing to do w/ Banning. Isn't that what politicians usually do? This project will do little to nothing to upgrade out town; in fact, it will add more "negative" descriptions to Banning. This is not what we want, and we will have to live with your decisions and these structures for the rest of our lives.

I would rather chance a lawsuit (Pearlman passed his deadline quite a while ago) than build something that was not appropriate, that would add negatively to Banning's image. Doing the wrong thing is not better than doing nothing. Deciding to not accept this project at this late date is the right decision. You have a chance to do what is best for Banning; it is time that the right decision is made.

It takes courage to change your minds, courage that comes from thinking of the long-range ramifications of this project and deciding that this is not what is best for Banning... The project is a huge mistake.

Since the council re-accepted Banning Stagecoach town as our motto, the project planned will not fit in with out motif. This project plans for buildings that resemble San Diego..white stucco w/ red tile roofs. This may make one or two blocks look good, but it will take away from the rest of the town and make it look even worse. And do you really think that out-of-towners will come to Banning for anything other than the court house, the probation dept...or Stagecoach Days??? This plan and project will not revitalize downtown Banning. It will damage, destroy, depress, kill, and ruin downtown.

I encourage the council to not transfer the agreement to Vanir and to **vote NO** in all phases of the Village at Paseo San Gorgonio project.
Thank you.



PRIVILEGED & CONFIDENTIAL ATTORNEY/CLIENT COMMUNIQUE

TO: Honorable Mayor And Members Of The Banning City Council,
Planning, Parks And Recreation Commissions

FROM: Lona N. Laymon, Assistant City Attorney

DATE: December 31, 2013

RE: Avoiding Claim Of Bias In Land Use Development Matters

INTRODUCTION & SUMMARY

A few months ago our office made a presentation on meeting procedures and due process to all Councilmembers and Commissioners serving the City of Banning. During the presentation, there was much discussion and many questions about the standards of "bias" that might apply to your role as a City official hearing various project applications and zoning issues. This memorandum is intended to provide you with further guidance.

As projects move through the planning process from initial meetings with staff to preparation of environmental impact reports and ultimately to presentation of a comprehensive project to the Parks and Recreation Commission or Planning Commission and then the City Council, it is to be anticipated that members of the City Council and the Commissions will have an interest in observing that process. In some cases, it may be that these City leaders will also have comments or questions about what is being presented.

It is important, however, to recognize that the City Council and the Commissions will be in charge of public hearings on development projects and that they will sit in judgment on them. As a result, members of the City Council and all Commissions must remain neutral and open minded during the preliminary processing phase—much like a judge. Taking positions—or worse yet stating strong, one-sided opinions—in advance of a public hearing can give rise to a legal challenge based on alleged bias on the part of the decision makers. If a member of the City Council or a Commission is actively engaged in either promoting a project or opposing it, bias may be alleged by those who disagree with the ultimate decision. This could lead to a civil rights claim against the City and against the individual who is alleged to have acted in a biased manner.

While there is a presumption that appointed and elected members of legislative bodies act in good faith, circumstances can arise that rebut that assumption and lead to a negative outcome. Case law relating to bias is very fact specific. That means that each case is reviewed on its own facts and the outcome to any legal challenge for bias or violation of procedural due process requirements turns on how the court views those facts.

CALIFORNIA GOVERNMENT CODE

21221. A retired person may serve without reinstatement from retirement or loss or interruption of benefits provided by this system, as follows:

(h) Upon interim appointment by the governing body of a contracting agency to a vacant position during recruitment for a permanent appointment and deemed by the governing body to require specialized skills or during an emergency to prevent stoppage of public business.

A retired person shall only be appointed once to this vacant position. These appointments, including any made concurrently pursuant to Section 21224 or 21229, shall not exceed a combined total of 960 hours for all employers each fiscal year.

The compensation for the interim appointment shall not exceed the maximum monthly base salary paid to other employees performing comparable duties as listed on a publicly available pay schedule for the vacant position divided by 173.333 to equal an hourly rate.

A retired person appointed to a vacant position pursuant to this subdivision shall not receive any benefits, incentives, compensation in lieu of benefits, or any other forms of compensation in addition to the hourly rate.

A retired annuitant appointed pursuant to this subdivision shall not work more than 960 hours each fiscal year regardless of whether he or she works for one or more employers.

CITY COUNCIL AGENDA

Date: October 27, 2015
TO: City Council
FROM: Michelle Green, Deputy Finance Director
SUBJECT: Report of Investments for August 2015

RECOMMENDATION: The City Council receive and file the monthly *Report of Investments*.

JUSTIFICATION: State law requires that a monthly report of investments be submitted to the Governing Legislative Body.

BACKGROUND/ANALYSIS: This report includes investments on hand at the end of August 2015. As of August 31, 2015, the City's operating funds totaled \$80,239,819. Included in Successor Agency operating funds is \$810,937 of restricted CRA bond proceeds that are on deposit with LAIF and reflected separately on the Summary Schedule.

As of August 31, 2015 approximately 38% of the City's unrestricted cash balances were invested in investments other than LAIF.

The August Investment Report includes the following documents:

- Summary Schedule of Cash and Investments
- Operational Portfolio Individual Investments
- Individual Investments with Fiscal Agent
- Investment Report Supplemental Information

The attached Summary Schedule of Cash and Investments has been updated to show the rate of earnings allowance received from Wells Fargo Bank. The amount earned reduces the total amount of bank fees charged.

FISCAL DATA: The latest reports from the State indicate that the average interest achieved by the Local Agency Investment Fund (LAIF) was increased to 0.330% in August. The average rate for all investments in August was 0.368%.

SUBMITTED BY:



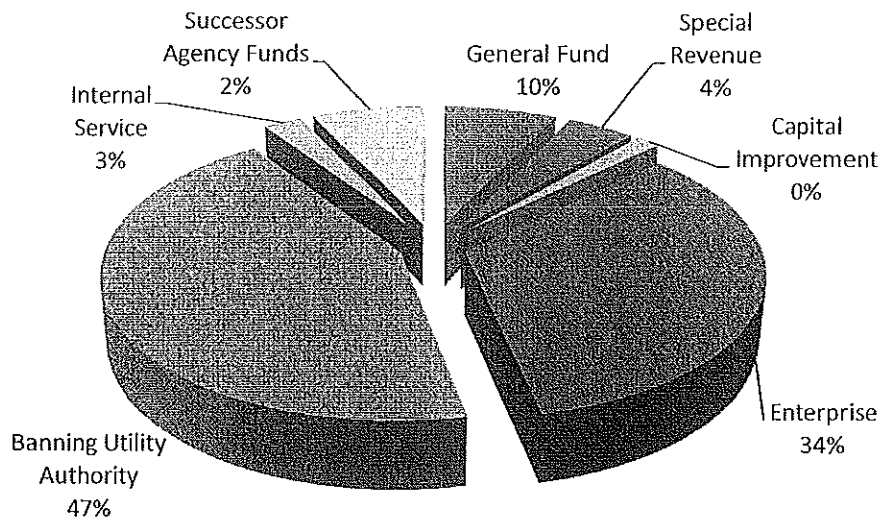
Michelle Green
Deputy Finance Director

City of Banning

Investment Report Supplemental Information

Pooled Cash Distribution

Investment reports for cities typically do not include the cash balance of the individual funds that make up the total pooled cash. This is primarily due to timing differences between when investment reports are prepared and when month end accounting entries are posted. Investment reports are usually prepared first. However, the pie chart below provides an understanding of the percentage distribution of the investments by fund type. The percentages were calculated using the average cash balances from the twelve month period of July 2014 to June 2015. *(The percentages will be updated quarterly.)*



The Table below describes the funds that are included within the Fund Types used for the pie chart.

Fund Type	Description of Funds
Governmental	General Fund
Special Revenue	Restricted Funds (i.e. CFDs, grants)
Capital Improvement	Development Impact Fee funds
Enterprise	Airport, Transit, Refuse, Electric
Banning Utility Authority	Water, Wastewater, Reclaimed water
Internal Service	Risk Management, Fleet, IT, Utility Services
Successor Agency Funds	Previously called Redevelopment Agency

Summary Schedule – Line item descriptions

Petty Cash –

The City maintains petty cash in various departments for incidental purchases. This line item includes the cash drawers for cashiering in utility billing.

Bank Accounts –

When reviewing the *Report of Investments*, please keep in mind that the balances shown on the *Summary Schedule of Cash and Investments* for bank accounts are “statement” balances. They reflect what the financial institution has on hand as of particular date and lists on their statement. They are not “general ledger” balances. General ledger balances reflect all activity through a particular date (i.e. all checks that have been written and all deposits that have been made) and is what we show on our books (the general ledger). The general ledger balance more accurately reflects the amount of cash we have available.

It should be noted that statement balances and general ledger balances can differ significantly. For example – on June 30th the statement balance for Wells Fargo Bank could show \$1,000,000, however, staff may have prepared a check run in the amount of \$750,000 on the same day. Our general ledger balance would show \$250,000, as the Wells Fargo statement does not recognize the checks that have been issued until they clear the bank.

For investment decisions and cash handling purposes staff relies on the balance in the general ledger. Staff does not invest funds that are not available. Sufficient funds must be kept in the bank accounts to cover all checks issued.

- Wells Fargo Bank – This is the City checking account. All cash receipts, payroll and accounts payables checks are processed through this account. Balances fluctuate based on activity and cash flow needs. As excess funds accumulate, they are transferred to LAIF to increase earnings. The Summary Schedule of Cash and Investments shows the rate of earnings allowance received from the bank. The amount earned reduces the total amount of bank fees charged.
- Bank of America – Airport – The City maintains a Trust account for credit card purchases made at the airport. When the account balance exceeds \$3000, excess funds are transferred to the Wells Fargo Bank account.
- Bank of America – Parking Citations – The City maintains a Trust account for the processing of parking citations through Turbo Data. When the account balance exceeds \$3000, excess funds are transferred to the Wells Fargo Bank account.
- Bank of America – CNG – The City maintains a Trust account for credit card purchases of CNG fuel made at the City yards. When the account balance exceeds \$3000, excess funds are transferred to the Wells Fargo Bank account.

Summary Schedule – Line item descriptions – Cont.

Government Pools –

- Local Agency investment Fund – Account #1
 - This account includes both City pooled funds and a restricted cash balance related to the CRA bonds. Investments in LAIF are limited to \$50M.
- Local Agency investment Fund – Account #2
 - There is currently no balance in this account.
 - Note: When the State established the cutoff date of January 31, 2012 for the elimination of the Redevelopment Agency, LAIF staff recommended a transfer of the available balance from the CRA account to the City account to protect the funds from a rumored State raid or freezing of the funds.

Restricted Operating Funds at Riverside Public Utilities –

The City Electric operation has an agreement with Riverside Public Utilities (RPU) to purchase power for the City. Part of the agreement requires that the City maintain a balance in the trust account used by RPU. The City does not control the investments or earnings of the trust account.

Restricted Operating Funds at California ISO-

The California ISO facilitates the purchase and sale of the City's electricity. The City participates in periodic Congestion Revenue Rights (CRR) auctions to acquire financial hedges for transmission congestion. In order to participate in the CRR auctions the City was required to have a secured form of financial security. A cash deposit in the amount of \$100,000 was placed with Union bank in March, 2012 to meet the requirements. An additional \$9,297 was deposited in May 2015 to meet revised requirements. The account is an interest bearing collateral account.

Restricted Operating Funds at PERMA-

The City participates in a JPA with the Public Entity Risk Management Authority (PERMA), who provides administration for the City's worker's compensation insurance program. PERMA requires the City to deposit funds into an account used by PERMA for the payment of worker's compensation claims. The City does not control the investments or earnings of this account.

Other Investments –

Currently the City works with a Piper Jaffray broker to make various investments per the City policy and in accordance with State guidelines. The Broker is not on retainer, nor do they receive a City paid fee with each investment. Funds in the Money Market fluctuate as securities mature or get called. Staff is in the process of investing the Money Market funds over several months. We will be adding an additional broker to provide more investment options.

Fiscal Agent / US Bank –

Unspent bond proceeds and required bond reserves are invested by the Fiscal Agent in accordance with the bond documents.

Summary Schedule of Cash and Investments

Operating FundsPetty Cash

Amount

4,205

Bank Accounts

Interest

Rate

Amount

Wells Fargo Bank

0.180% *

3,471,546

Bank of America-Airport

0.020%

4,919

Bank of America-Parking Citations

0.020%

3,078

Bank of America-CNG Station

0.020%

3,388

Money Market and Bank Account Sub-Total

3,482,931

Government Pools

Account #1 Operating Amount

47,133,008

Account #1 CRA Bond Cash Bal.

810,937

Local Agency Investment Fund: Account #1

0.330%

47,943,945

Account #2 Successor Agency Cash Bal

0

Local Agency Investment Fund: Account #2

0.330%

0

Government Pool Sub-Total

47,943,945

Operating Cash Balance

51,431,081

Restricted Operating Funds

Riverside Public Utilities- Highmark U.S. Government Money Market Fund

0.040%

945,975

California ISO Corp- Union Bank

109,527

Worker's Compensation Program- (PERMA)

1,767,938

Other Investments

Investments-US Bank/Piper Jaffray - See Page 2

0.464%

25,985,298

Operating Funds Total

80,239,819

Fiscal Agent

Amount

US Bank

33,065,113

Fiscal Agent Total

33,065,113

* Rate of earnings allowance received, offsets analyzed bank charges.

Operational Portfolio Individual Investments

Par Value	Investment Description	Coupon Rate	Interest Rate	Maturity Date	Purchase Date	Date	Discount or (Premium) Amortization	Market Value
<i>Bank Accounts</i>								
3,471,546	Wells Fargo Bank-Operating	n/a	0.18%	daily	varies	3,471,546	n/a	3,471,546
4,919	Bank of America-Airport	n/a	0.02%	daily	varies	4,919	n/a	4,919
3,078	Bank of America-Parking Citations	n/a	0.02%	daily	varies	3,078	n/a	3,078
3,388	Bank of America-Parking Citations	n/a	0.02%	daily	varies	3,388	n/a	3,388
Sub-total								
								3,482,931
<i>Government Pools</i>								
47,943,945	L.A.I.F. account #1	n/a	0.330%	daily	varies	47,943,945	n/a	47,943,945
0	L.A.I.F. account #2	n/a	0.330%	daily	varies	0	n/a	0
<i>Investments-US Bank/Piper Jaffray</i>								
2,000,000	Federal Home Loan Bks	n/a	0.700%	12/27/2016	3/27/2014	2,000,000		2,000,920
2,000,000	Federal Home Loan Bks	n/a	0.500%	7/15/2016	4/15/2014	2,000,000		2,000,280
1,700,000	FHLMC Mtn	n/a	0.700%	12/30/2016	6/30/2014	1,700,000		1,699,575
2,000,000	Federal Home Loan Bks	n/a	1.200%	5/24/2018	11/6/2014	2,000,000		1,988,780
1,000,000	FNMA	n/a	1.250%	11/27/2018	5/27/2015	1,000,000		999,010
2,000,000	Federal Home Loan Bks	n/a	1.100%	3/29/2018	7/1/2015	2,000,000		1,995,980
2,000,000	FHLMC Mtn	n/a	1.250%	7/27/2018	7/27/2015	2,000,000		1,996,920
13,303,833	Money Market	n/a	0.010%	daily	varies	13,303,833	0	13,303,833
US Bank/Piper Jaffray Average Rate=								
			0.464%					25,985,298

Average Rate All= 0.368%

It has been verified that this investment portfolio is in conformity with the City of Banning's investment policy which was approved by the City Council on January 13, 2015. The Treasurer's cash management program provides sufficient liquidity to meet estimated future expenditures for a period of six months. The weighted average maturity of the pooled investment portfolio is 126 days and does not include Bond Reserve Fund Investments.

City of Banning Investment Report

August 31, 2015

Individual Investments with Fiscal Agent

Bond Issue Description	Bond Maturity Date	Investment Description	Current Yield	Bond Reserve Bond Maturity Date	Minimum Reserve Requirement	8/31/2015 Market Value
COB IMPROVEMENT DISTRICT LIMITED OBLIGATION BONDS SERIES 2005A						
2005 Fair Oaks Ranch Estates	2035	US Bank Mmkt 5-Ct	0.020%	daily	188,024	332,241
COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF BANNING TAX ALLOCATION, SERIES 2003						
2003 CRA Tax Allocation Bonds	2028	U S Treasury Bill	4.61%	1/29/2015	971,250	1,012,666
		US Bank Mmkt 5-Ct	0.000%	daily		4.25
		US Bank Mmkt 5-Ct	0.000%	daily		7.37
		US Bank Mmkt 5-Ct	0.000%	daily		12
Surplus Fund						
COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF BANNING TAX ALLOCATION PARITY BONDS, SERIES 2007						
Redevelop Fund	2037	US Bank Mmkt 5-Ct	0.020%	daily		141.56
		US Bank Mmkt 5-Ct	0.000%	daily		6.37
Reserve Fund		US Bank Mmkt 5-Ct	0.020%	daily	1,875,100	31.85
Special Fund		US Bank Mmkt 5-Ct	0.000%	daily		14.86
Surplus Fund		US Bank Mmkt 5-Ct	0.000%	daily		11
BUA - WASTEWATER ENTERPRISE REVENUE BONDS REFUNDING AND IMPROVEMENT PROJECTS 2005 SERIES						
Interest Account		US Bank Mmkt 5-Ct	0.000%	daily		2
Principal Account		US Bank Mmkt 5-Ct	0.020%	daily		1.36
		US Bank Mmkt 5-Ct	0.020%	daily		55.49
BUA - WATER ENTERPRISE REVENUE BONDS REFUNDING AND IMPROVEMENT PROJECTS 2005 SERIES						
Interest Account		US Bank Mmkt 5-Ct	0.000%	daily		10
Principal Account		US Bank Mmkt 5-Ct	0.020%	daily		7.13
Reserve Fund		US Bank Mmkt 5-Ct	0.020%	daily	2,310,738	39.25
Project Fund		US Bank Mmkt 5-Ct	0.020%	daily		27.22
BFA - ELECTRIC SYSTEM REVENUE BONDS 2007 SERIES						
		US Bank Mmkt 5-Ct	0.000%	daily		17
		US Bank Mmkt 5-Ct	0.020%	daily	2,672,050	45.39
Acquisition & Construction		US Bank Mmkt 5-Ct	0.020%	daily		189.54
*Paid Semi-Annually-Deposited into Money Mkt Account						
Total						576.32
						33,065,113

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CITY COUNCIL AGENDA

DATE: October 27, 2015

TO: CITY COUNCIL

FROM: Michelle M. Green, Deputy Finance Director

SUBJECT: Additional Documentation Requested at the October 13, 2015 City Council Meeting Regarding an Amendment to the Government Staffing Services, Inc. Contract

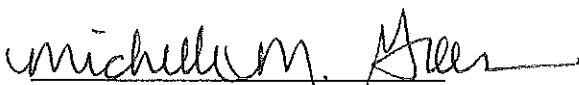
RECOMMENDATION: Council receive and file the attached documentation relating to the October 13, 2015 request for an amendment to the Government Staffing Services, Inc. contract.

JUSTIFICATION: Included with this report are several documents that serve as backup to the request originally brought before the City Council at the October 13, 2015 meeting. Items included are the CalPERS Circular 200-002-14 - *Post Service Retirement Employment Requirements: Public Employees' Pension Reform Act of 2013 (PEPRA, Assembly Bill 340), Senate Bill 1021 & Senate Bill 13* (Attachment 1); Government Code Section 7522-7522.74 (Attachment 2); the email from BNSD (Benefit Services Division), Post Retirement Administration of CalPERS stating the results of their administrative review (Attachment 3); another email from BNSD, Post Retirement Administration of CalPERS further clarifying any impacts to the City for not adjusting the minimum pay rate of the Interim City Manager (Attachment 4); a copy of the entire public records request response regarding this matter (Attachment 5); and a copy of the original staff report (Attachment 6) for reference.

BACKGROUND: At the October 13, 2015 City Council meeting, a request for an amendment to the Government Staffing Services, Inc. contract was brought forward by staff. Some Councilmembers felt the report was incomplete, bordering on misleading, and thus made a motion and request to have additional supporting documentation brought back to Council for their review. The attached documentation is responsive to this request.

FISCAL DATA: The original request for a contract amendment was rejected at the October 13, 2015 Council meeting. This report serves informational purposes only in response to Council's request; therefore, there is no fiscal impact to receiving and placing this information on file.

SUBMITTED BY:


Michelle M. Green
Deputy Finance Director



California Public Employees' Retirement System
P.O. Box 942709
Sacramento, CA 94229-2709
(888) CalPERS (or 888-225-7377)
TTY: (877) 249-7442
www.calpers.ca.gov

Reference No.:
Circular Letter No.: 200-002-14
Distribution: IV, V, VI, X, XII, XVI
Special:

Circular Letter

January 14, 2014

TO: **ALL CALPERS EMPLOYERS**

SUBJECT: **POST SERVICE RETIREMENT EMPLOYMENT REQUIREMENTS:
PUBLIC EMPLOYEES' PENSION REFORM ACT OF 2013 (PEPRA,
ASSEMBLY BILL 340), SENATE BILL 1021 & SENATE BILL 13**

The purpose of this Circular Letter is to inform you of the current requirements for post-retirement employment of CalPERS retirees on service retirement only.

These changes are the result of amendments and additions to the Government Code by Senate Bill (SB) 1021, Assembly Bill (AB) 340, the Public Employees' Pension Reform Act of 2013 (PEPRA), and Senate Bill (SB) 13.

This letter provides an overview of the laws governing post-retirement employment and the consequences of unlawful employment to retirees and employers. Attached to this letter is a quick reference guide, the **EMPLOYER CHECKLIST FOR HIRING CalPERS RETIREES**, to aid in the hiring process.

To provide some background, PEPRA added sections 7522.56 and 7522.57 to the Government Code (GC) effective January 1, 2013 which set forth post-retirement employment requirements applicable to all retirees who are employed by CalPERS employers on or after January 1, 2013. To the extent that provisions under the Public Employees' Retirement Law (PERL) dealing with employment after retirement (GC sections 21220 through 21230) are not in conflict with the aforementioned PEPRA post-retirement employment provisions, the PERL provisions also apply.

Public Agency and School employers must enroll retirees in the myCalPERS system; State employers must enroll retirees in Personnel Information Management System (PIMS). CalPERS employers have enrolled more than 13,200 retirees since the launch of the myCalPERS system. While enrolling retirees allows CalPERS to track compliance with applicable statutes, it is the responsibility of both the retiree and the employer to ensure compliance with all applicable statutes.

SUMMARY OF CURRENT REQUIREMENTS

Retirees can be hired into retired annuitant¹ positions to perform work of limited duration. Limited duration means the appointment is not for an indefinite period of time and that it is not an appointment to a part-time regular staff position. The work a retiree performs should supplement the work of regular staff (e.g., it is extra help work such as elimination of backlog, special project work, or to help with work in excess of that which regular staff can do) or should be authorized "during an emergency to prevent stoppage of public business" such as in the case of floods, earthquakes, etc.. Retired annuitants can perform this limited duration work for up to a maximum of 960 hours per fiscal year, can be paid up to the maximum hourly rate paid to employees doing similar work without any other compensation or benefits, and must have the skill set needed to perform the retired annuitant work. In sum, retired annuitants should neither be considered a permanent solution to business needs nor should retired annuitants be allowed to work indefinitely.

As previously, before beginning post-retirement work all new retirees must meet the bona fide separation in service requirement of GC section 21220.5 if the retiree is under normal retirement age. Additionally, all new retirees are now subject to a 180 day wait period before beginning post-retirement work. These two requirements, the bona fide break and the 180 day wait period, can be met concurrently. There are four exceptions (see page 4 of this Circular Letter) to the 180 day wait period, but a retiree who receives a Golden Handshake or any other retirement-related incentive is disqualified from any exception and must meet the 180 day wait period. A retiree who receives unemployment insurance payments for retired annuitant work with any public employer within the previous 12 months is barred from retired annuitant work with any CalPERS employer for 12 months. The following sections give more information about the various types of retired annuitant appointments and the specific requirements for each.

GENERAL REQUIREMENTS

Generally, if the position in which a retiree will work is one that is subject to CalPERS membership where an active employee would earn CalPERS service credit, i.e. there is an employer-employee relationship, then a retiree hired to work in that position is subject to the retirement law requirements.

The common law employment test is used by the courts and CalPERS Board of Administration to determine "employee" or "independent contractor" status under the PERL. Under this test, a position title or characterization of the services performed is not the only determining factor of employee / independent contractor status. Just because a retiree is retained for a position that is called an independent contractor, consultant or third-party employer position, does not necessarily mean employment in that position is exempt from the retired annuitant requirements. Therefore, a retiree retained to work as an "independent contractor", "consultant", or through a "third party employer" in any position that would meet the common law employment test may be

¹ CalPERS retirees employed by CalPERS employers are known as "retired annuitants" or "rehired annuitants".

subject to mandatory reinstatement from retirement if the employment does not otherwise meet the retirement law requirements.

- 1) 960-Hour per Fiscal Year Limit: A retired annuitant may be employed up to a maximum of 960 hours per fiscal year for all CalPERS employers, without exception. There is no provision in the law to allow a retired annuitant to "volunteer" hours while employed. Retired annuitants who work more than the 960 hour maximum per fiscal year under any circumstances are out of compliance with statute and subject to mandatory reinstatement.

CSU retired academics, hired under Government Code section 21227, are limited to 960 hours in a fiscal year or 50 percent of the hours the member was employed during the last fiscal year of service prior to retirement, whichever is less.

- 2) Retiree Compensation: The compensation paid to retirees cannot be less than the minimum nor exceed the maximum monthly base salary paid to other employees performing comparable duties, divided by 173.333 hours per month, to equal an hourly rate. Retirees cannot receive any benefit, incentive, compensation in lieu of benefits, or other form of compensation in addition to the hourly pay rate.
- 3) Limited Duration Appointment: Retirees cannot be hired into vacant permanent or regular staff positions except as an interim appointment under GC section 21221(h) appointment (as discussed below), regardless of whether the positions are part-time or full-time. Retirees should be hired into retired annuitant-designated positions only. A retired annuitant appointment should have a beginning date and an end date. A retiree can be hired to perform work of limited duration, meaning extra help work such as the elimination of a backlog, to perform special project work, or to perform work in excess of that which regular staff can do. Limited duration work does not mean an indefinite appointment to a permanent part-time position.
- 4) Retiree Skills²: There should be some showing in the retiree's work history that he or she has previous experience and the skill set needed to perform the desired work. Some examples include: the skill set and previous experience as a police officer to perform extra help law enforcement work, prior janitorial experience to perform similar services, or prior engineer experience, and so forth.

² Though specific retiree skills may not be a prerequisite during an emergency to prevent stoppage of public business, there must be a true emergency in order to fall within this category. Otherwise, the retiree skills are required.

**INTERIM APPOINTMENT – APPLICABLE PORTIONS OF GOVERNMENT CODE
section 21221(h)**

The governing bodies of contracting agencies are authorized by the applicable provisions of GC section 21221(h) to appoint a retiree to fill a vacant position on an interim basis during the recruitment to permanently fill the vacant position. Contracting agencies for this purpose are public agencies and county offices of education.

- 1) Interim Appointment by Governing Body: These appointments must be made by the governing body of the employer and are generally used for single or unique positions such as interim city manager, police chief, director, or other managerial and executive positions.
- 2) Open Recruitment for a Permanent Replacement Required: An open recruitment to permanently fill the vacant position is required in order to appoint a retiree. A retiree hired as an interim appointment without an open recruitment could be subject to mandatory reinstatement. A retiree hired as a permanent appointment is subject to mandatory reinstatement.
- 3) Limited Duration Appointment: A retiree can be appointed only once to the position, thus the employment terms must specify an end date and cannot be amended to extend the appointment term. A retiree appointed more than once is subject to mandatory reinstatement.

180 DAY WAIT PERIOD

GC section 7522.56 provides that a retiree is eligible for post-retirement employment 180 days following his or her retirement date. This requirement applies to retiree employment that begins after January 1, 2013. There are four exceptions to the 180 day wait period including, (a) firefighter or public safety officer (which status is determined in accordance with the definition set forth in CCR³ 579.25) hired to perform a function or functions regularly performed by a public safety officer or firefighter, (b) Public agency or school employer provides a resolution certifying the nature of the employment and that the appointment is necessary to fill a critically needed position before 180 days has passed; (c) State agency employer certifies the nature of the employment and that the appointment is necessary to fill a critically needed state employment position before 180 days has passed and submits the information to California Department of Human Resources (CalHR) to obtain approval; CalHR then provides the approval and documentation to CalPERS, and (d) the retiree participates in a qualifying California State Universities (CSU) Faculty Early Retirement Program (FERP). Additional information about these exceptions can be found in the Employer Checklist for Hiring CalPERS Retirees. However, if a retiree receives a Golden Handshake or any other retirement-related incentive, the 180 day wait period applies without exception.

Please note, if a retiree is employed without meeting the 180 day wait period and without an allowable exception, he or she is subject to immediate reinstatement from

³ California Code of Regulations

retirement. There is no provision in the retirement law to retroactively remedy a violation of the 180 day wait period.

BONA FIDE SEPARATION IN SERVICE

All service retirees must meet the bona fide separation in service requirement of GC section 21220.5 if the retiree is under normal retirement age at retirement, even if an exception to the 180 day wait period applies. This is a federal tax law requirement with which CalPERS must comply in order to maintain its tax-deferred status.

UNEMPLOYMENT INSURANCE PAYMENTS

GC section 7522.56 provides that a retiree cannot be appointed as a retired annuitant if he or she received unemployment insurance payments for retired annuitant work for any public employer within the 12 months prior to the appointment date. The retiree is required to certify to the employer, in writing, that he or she is in compliance with this requirement. If a retired annuitant is subsequently discovered to have violated this requirement, his or her employment must be terminated on the last day of the current pay period and he or she will not be eligible for reappointment by any CalPERS employer for 12 months following that last day of employment.

INDEPENDENT CONTRACTORS / CONSULTANTS / CONTRACT EMPLOYEES

Generally, retirees engaged as true independent contractors, consultants or retained through third party employers, whose employment does not meet the California common law employment test, are not subject to the retirement law requirements. If, however, the employment constitutes a California common law employment (employer-employee) relationship, the employment is subject to the retirement law requirements regardless of its characterization. As noted above, a retiree retained to work as an "independent contractor," consultant," or through a "third-party employer" in any position that would meet the common law employment test may be subject to mandatory reinstatement from retirement if the employment does not otherwise meet the retirement law requirements. It is therefore critical that employers consider the common law employment test factors when considering the use of a retired annuitant.

MANDATORY REINSTATEMENT FOR UNLAWFUL EMPLOYMENT

An unlawfully employed retiree is subject to mandatory reinstatement from retirement as follows:

- The retiree is reinstated from retirement by CalPERS. Upon appointment by the employer, he or she becomes the active employee and contributing CalPERS member of that employer, in the position in which unlawfully employed, and as of the date the unlawful employment began.
- The now active employee must pay retroactive member contributions plus interest for the period of unlawful employment and, likewise, the employer will

pay employer contributions plus interest on the employee's behalf for the period of unlawful employment via retroactive payroll reporting.

- The now active employee must reimburse CalPERS the entire amount of retirement allowance he or she received during the period of unlawful employment.
- The member and employer, to the extent each is determined to be at fault, may be required to reimburse CalPERS for administrative expenses incurred in responding to the investigation and resolution of the unlawful employment.

If you have any questions, please call our CalPERS Customer Contact Center at **888 CalPERS** (or 888-225-7377).

ANTHONY SUINE, Chief
Benefit Services Division

Attachment: Employer Checklist

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GOVERNMENT CODE

SECTION 7522-7522.74

7522. This article shall be known as the California Public Employees' Pension Reform Act of 2013.

7522.02. (a) (1) Notwithstanding any other law, except as provided in this article, on and after January 1, 2013, this article shall apply to all state and local public retirement systems and to their participating employers, including the Public Employees' Retirement System, the State Teachers' Retirement System, the Legislators' Retirement System, the Judges' Retirement System, the Judges' Retirement System II, county and district retirement systems created pursuant to the County Employees Retirement Law of 1937 (Chapter 3 (commencing with Section 31450) of Part 3 of Division 4 of Title 3), independent public retirement systems, and to individual retirement plans offered by public employers. However, this article shall be subject to the Internal Revenue Code and Section 17 of Article XVI of the California Constitution. The administration of the requirements of this article shall comply with applicable provisions of the Internal Revenue Code and the Revenue and Taxation Code.

(2) Notwithstanding paragraph (1), this article shall not apply to the entities described in Section 9 of Article IX of, and Sections 4 and 5 of Article XI of, the California Constitution, except to the extent that these entities continue to be participating employers in any retirement system governed by state statute. Accordingly, any retirement plan approved before January 1, 2013, by the voters of any entity excluded from coverage by this section shall not be affected by this article.

(3) (A) Notwithstanding paragraph (1), this article shall not apply to a public employee whose interests are protected under Section 5333(b) of Title 49 of the United States Code until a federal district court rules that the United States Secretary of Labor, or his or her designee, erred in determining that the application of this article precludes certification under that section, or until January 1, 2016, whichever is sooner.

(B) If a federal district court upholds the determination of the United States Secretary of Labor, or his or her designee, that application of this article precludes him or her from providing a certification under Section 5333(b) of Title 49 of the United States Code, this article shall not apply to a public employee specified in subparagraph (A).

(4) Notwithstanding paragraph (1), this article shall not apply to a multiemployer plan authorized by Section 302(c)(5) of the federal Taft-Hartley Act (29 U.S.C. Sec. 186(c)(5)) if the public employer began participation in that plan prior to January 1, 2013, and the plan is regulated by the federal Employee Retirement Income Security Act of 1974 (29 U.S.C. Sec. 1001 et seq.).

(b) The benefit plan required by this article shall apply to public employees who are new members as defined in Section 7522.04.

(c) (1) Individuals who were employed by any public employer before January 1, 2013, and who became employed by a subsequent public employer for the first time on or after January 1, 2013, shall be subject to the retirement plan that would have been available to

employees of the subsequent employer who were first employed by the subsequent employer on or before December 31, 2012, if the individual was subject to concurrent membership for which creditable service was performed in the previous six months or reciprocity established under any of the following provisions:

(A) Article 5 (commencing with Section 20350) of Chapter 3 of Part 3 of Division 5 of Title 2.

(B) Chapter 3 (commencing with Section 31450) of Part 3 of Division 4 of Title 3.

(C) Any agreement between public retirement systems to provide reciprocity to members of the systems.

(D) Section 22115.2 of the Education Code.

(2) An individual who was employed before January 1, 2013, and who, without a separation from employment, changed employment positions and became subject to a different defined benefit plan in a different public retirement system offered by his or her employer shall be subject to that defined benefit plan as it would have been available to employees who were first employed on or before December 31, 2012.

(d) If a public employer, before January 1, 2013, offers a defined benefit pension plan that provides a defined benefit formula with a lower benefit factor at normal retirement age and results in a lower normal cost than the defined benefit formula required by this article, that employer may continue to offer that defined benefit formula instead of the defined benefit formula required by this article, and shall not be subject to the requirements of Section 7522.10 for pensionable compensation subject to that formula. However, if the employer adopts a new defined benefit formula on or after January 1, 2013, that formula must conform to the requirements of this article or must be determined and certified by the retirement system's chief actuary and the retirement board to have no greater risk and no greater cost to the employer than the defined benefit formula required by this article and must be approved by the Legislature. New members of the defined benefit plan may only participate in the lower cost defined benefit formula that was in place before January 1, 2013, or a defined benefit formula that conforms to the requirements of this article or is approved by the Legislature as provided in this subdivision.

(e) If a public employer, before January 1, 2013, offers a retirement benefit plan that consists solely of a defined contribution plan, that employer may continue to offer that plan instead of the defined benefit pension plan required by this article. However, if the employer adopts a new defined benefit pension plan or defined benefit formula on or after January 1, 2013, that plan or formula must conform to the requirements of this article or must be determined and certified by the retirement system's chief actuary and the system's board to have no greater risk and no greater cost to the employer than the defined benefit formula required by this article and must be approved by the Legislature. New members of the employer's plan may only participate in the defined contribution plan that was in place before January 1, 2013, or a defined contribution plan or defined benefit formula that conforms to the requirements of this article. This subdivision shall not be construed to prohibit an employer from offering a defined contribution plan on or after January 1, 2013, either with or without a defined benefit plan, whether or not the employer offered a defined contribution plan prior to that date.

(f) (1) If, on or after January 1, 2013, the Cities of Brea and Fullerton form a joint powers authority pursuant to the provisions of the Joint Exercise of Powers Act (Article 1 (commencing with Section

6500) of Chapter 5), that joint powers authority may provide employees the defined benefit plan or formula that those employees received from their respective employers on December 31, 2012, to any employee of the City of Brea, the City of Fullerton, or a city described in paragraph (2) who is not a new member and subsequently is employed by the joint powers authority without a break in service of more than 180 days.

(2) On or before January 1, 2017, a city in Orange County that is contiguous to the City of Brea or the City of Fullerton may join the joint powers authority described in paragraph (1) but not more than three cities shall be permitted to join.

(3) The formation of a joint powers authority on or after January 1, 2013, shall not act in a manner as to exempt a new employee or a new member, as defined by Section 7522.04, from the requirements of this article. New members may only participate in a defined benefit plan or formula that conforms to the requirements of this article.

(g) The Judges' Retirement System and the Judges' Retirement System II shall not be required to adopt the defined benefit formula required by Section 7522.20 or 7522.25 or the compensation limitations defined in Section 7522.10.

(h) This article shall not be construed to provide membership in any public retirement system for an individual who would not otherwise be eligible for membership under that system's applicable rules or laws.

(i) On and after January 1, 2013, each public retirement system shall modify its plan or plans to comply with the requirements of this article and may adopt regulations or resolutions for this purpose.

7522.04. For the purposes of this article:

(a) "Defined benefit formula" means a formula used by the retirement system to determine a retirement benefit based on age, years of service, and pensionable compensation earned by an employee up to the limit defined in Section 7522.10.

(b) "Employee contributions" means the contributions to a public retirement system required to be paid by a member of the system, as fixed by law, regulation, administrative action, contract, contract amendment, or other written agreement recognized by the retirement system as establishing an employee contribution.

(c) "Federal system" means the old age, survivors, disability, and health insurance provisions of the federal Social Security Act (42 U.S.C. Sec. 301 et seq.).

(d) "Member" means a public employee who is a member of any type of a public retirement system or plan.

(e) "New employee" means either of the following:

(1) An employee, including one who is elected or appointed, of a public employer who is employed for the first time by any public employer on or after January 1, 2013, and who was not employed by any other public employer prior to that date.

(2) An employee, including one who is elected or appointed, of a public employer who is employed for the first time by any public employer on or after January 1, 2013, and who was employed by another public employer prior to that date, but who was not subject to reciprocity under subdivision (c) of Section 7522.02.

(f) "New member" means any of the following:

(1) An individual who becomes a member of any public retirement system for the first time on or after January 1, 2013, and who was not a member of any other public retirement system prior to that

date.

(2) An individual who becomes a member of a public retirement system for the first time on or after January 1, 2013, and who was a member of another public retirement system prior to that date, but who was not subject to reciprocity under subdivision (c) of Section 7522.02.

(3) An individual who was an active member in a retirement system and who, after a break in service of more than six months, returned to active membership in that system with a new employer. For purposes of this subdivision, a change in employment between state entities or from one school employer to another shall not be considered as service with a new employer.

(g) "Normal cost" means the portion of the present value of projected benefits under the defined benefit that is attributable to the current year of service, as determined by the public retirement system's actuary according to the most recently completed valuation. For the purpose of determining normal cost, the system's actuary may use a single rate of contribution or an age-based rate of contribution as is applicable to that retirement system.

(h) "Public employee" means an officer, including one who is elected or appointed, or an employee of a public employer.

(i) "Public employer" means:

(1) The state and every state entity, including, but not limited to, the Legislature, the judicial branch, including judicial officers, and the California State University.

(2) Any political subdivision of the state, or agency or instrumentality of the state or subdivision of the state, including, but not limited to, a city, county, city and county, a charter city, a charter county, school district, community college district, joint powers authority, joint powers agency, and any public agency, authority, board, commission, or district.

(3) Any charter school that elects or is required to participate in a public retirement system.

(j) "Public retirement system" means any pension or retirement system of a public employer, including, but not limited to, an independent retirement plan offered by a public employer that the public employer participates in or offers to its employees for the purpose of providing retirement benefits, or a system of benefits for public employees that is governed by Section 401(a) of Title 26 of the United States Code.

7522.10. (a) On and after January 1, 2013, each public retirement system shall modify its plan or plans to comply with the requirements of this section for each public employer that participates in the system.

(b) Whenever pensionable compensation, as defined in Section 7522.34, is used in the calculation of a benefit, the pensionable compensation shall be subject to the limitations set forth in subdivision (c).

(c) The pensionable compensation used to calculate the defined benefit paid to a new member who retires from the system shall not exceed the following applicable percentage of the contribution and benefit base specified in Section 430(b) of Title 42 of the United States Code on January 1, 2013:

(1) One hundred percent for a member whose service is included in the federal system.

(2) One hundred twenty percent for a member whose service is not included in the federal system.

(d) (1) The retirement system shall adjust the pensionable

compensation described in subdivision (c) based on the annual changes to the Consumer Price Index for All Urban Consumers: U.S. City Average, calculated by dividing the Consumer Price Index for All Urban Consumers: U.S. City Average, for the month of September in the calendar year preceding the adjustment by the Consumer Price Index for All Urban Consumers: U.S. City Average, for the month of September of the previous year rounded to the nearest thousandth. The adjustment shall be effective annually on January 1, beginning in 2014.

(2) The Legislature reserves the right to modify the requirements of this subdivision with regard to all public employees subject to this section, except that the Legislature may not modify these provisions in a manner that would result in a decrease in benefits accrued prior to the effective date of the modification.

(e) A public employer shall not offer a defined benefit or any combination of defined benefits, including a defined benefit offered by a private provider, on compensation in excess of the limitation in subdivision (c).

(f) (1) Subject to the limitation in subdivision (c) of Section 7522.42, a public employer may provide a contribution to a defined contribution plan for compensation in excess of the limitation in subdivision (c) provided the plan and the contribution meet the requirements and limits of federal law.

(2) A public employee who receives an employer contribution to a defined contribution plan shall not have a vested right to continue receiving the employer contribution.

(g) Any employer contributions to any employee defined contribution plan above the pensionable compensation limits in subdivision (c) shall not exceed the employer's contribution rate, as a percentage of pay, required to fund the defined benefit plan for income subject to the limitation in subdivision (c) of Section 7522.42.

(h) The retirement system shall limit the pensionable compensation used to calculate the contributions required of an employer or a new member to the amount of compensation that would be used for calculating a defined benefit as set forth in subdivision (c) or (d).

7522.15. Except as provided in subdivisions (d) and (e) of Section 7522.02, each public employer and each public retirement system that offers a defined benefit plan shall offer only the defined benefit formulas established pursuant to Sections 7522.20 and 7522.25 to new members.

7522.18. (a) A public employer that does not offer a supplemental defined benefit plan before January 1, 2013, shall not offer a supplemental defined benefit plan for any employee on or after January 1, 2013.

(b) A public employer that provides a supplemental defined benefit plan, including a defined benefit plan offered by a private provider, before January 1, 2013, shall not offer a supplemental defined benefit plan to any additional employee group to which the plan was not provided before January 1, 2013.

(c) Except as provided in Chapter 38 (commencing with Section 25000) of Article 1 of Part 13 of Title 1 of the Education Code, a public employer shall not offer or provide a supplemental defined benefit plan, including a defined benefit plan offered by a private

provider, to any employee hired on or after January 1, 2013.

7522.20. (a) Each retirement system that offers a defined benefit plan for nonsafety members of the system shall use the formula prescribed by this section. The defined benefit plan shall provide a pension at retirement for service equal to the percentage of the member's final compensation set forth opposite the member's age at retirement, taken to the preceding quarter year, in the following table, multiplied by the number of years of service in the system as a nonsafety member. A member may retire for service under this section after five years of service and upon reaching 52 years of age.

Age of Retirement	Fraction
52	1.000
52 1/4.....	1.025
52 1/2.....	1.050
52 3/4	1.075
53	1.100
53 1/4.....	1.125
53 1/2.....	1.150
53 3/4.....	1.175
54	1.200
54 1/4.....	1.225
54 1/2.....	1.250
54 3/4.....	1.275
55	1.300
55 1/4.....	1.325
55 1/2.....	1.350
55 3/4.....	1.375
56	1.400
56 1/4.....	1.425
56 1/2.....	1.450
56 3/4.....	1.475
57	1.500
57 1/4.....	1.525
57 1/2.....	1.550
57 3/4.....	1.575
58	1.600
58 1/4.....	1.625
58 1/2.....	1.650
58 3/4.....	1.675
59	1.700
59 1/4.....	1.725
59 1/2.....	1.750
59 3/4.....	1.775
60	1.800
60 1/4.....	1.825
60 1/2.....	1.850
60 3/4.....	1.875
61	1.900
61 1/4.....	1.925
61 1/2.....	1.950
61 3/4.....	1.975
62	2.000
62 1/4.....	2.025
62 1/2.....	2.050
62 3/4.....	2.075

63	.....	2.100
63	1/4.....	2.125
63	1/2.....	2.150
63	3/4.....	2.175
64	.....	2.200
64	1/4.....	2.225
64	1/2.....	2.250
64	3/4.....	2.275
65	.....	2.300
65	1/4.....	2.325
65	1/2.....	2.350
65	3/4.....	2.375
66	.....	2.400
66	1/4.....	2.425
66	1/2.....	2.450
66	3/4.....	2.475
67	.....	2.500

(b) Pensionable compensation used to calculate the defined benefit shall be limited as described in Section 7522.10.

(c) A new member of the State Teachers' Retirement System shall be subject to the formula established pursuant to Section 24202.6 of the Education Code.

7522.25. (a) Each retirement system that offers a defined benefit plan for safety members of the system shall use one or more of the defined benefit formulas prescribed by this section. A member may retire for service under any of the formulas in this section after five years of service and upon reaching 50 years of age.

(b) The Basic Safety Plan shall provide a pension at retirement for service equal to the percentage of the member's final compensation set forth opposite the member's age at retirement, taken to the preceding quarter year, in the following table, multiplied by the number of years of service in the system as a safety member.

Age at Retirement	Fraction
50	 1.426
50 1/4	 1.447
50 1/2	 1.467
50 3/4	 1.488
51	 1.508
51 1/4	 1.529
51 1/2	 1.549
51 3/4	 1.570
52	 1.590
52 1/4	 1.611
52 1/2	 1.631
52 3/4	 1.652
53	 1.672
53 1/4	 1.693
53 1/2	 1.713
53 3/4	 1.734
54	 1.754
54 1/4	 1.775
54 1/2	 1.795
54 3/4	 1.816
55	 1.836
55 1/4	 1.857

55 1/2.....	1.877
55 3/4.....	1.898
56	1.918
56 1/4.....	1.939
56 1/2.....	1.959
56 3/4.....	1.980
57 and over	2.000

(c) The Safety Option Plan One shall provide a pension at retirement for service equal to the percentage of the member's final compensation set forth opposite the member's age at retirement, taken to the preceding quarter year, in the following table, multiplied by the number of years of service in the system as a safety member.

Age at Retirement	Fraction
50	2.000
50 1/4.....	2.018
50 1/2.....	2.036
50 3/4.....	2.054
51	2.071
51 1/4.....	2.089
51 1/2.....	2.107
51 3/4.....	2.125
52	2.143
52 1/4.....	2.161
52 1/2.....	2.179
52 3/4.....	2.196
53	2.214
53 1/4.....	2.232
53 1/2.....	2.250
53 3/4.....	2.268
54	2.286
54 1/4.....	2.304
54 1/2.....	2.321
54 3/4.....	2.339
55.....	2.357
55 1/4.....	2.375
55 1/2.....	2.393
55 3/4.....	2.411
56.....	2.429
56 1/4.....	2.446
56 1/2.....	2.464
56 3/4.....	2.482
57 and over.....	2.500

(d) The Safety Option Plan Two shall provide a pension at retirement for service equal to the percentage of the member's final compensation set forth opposite the member's age at retirement, taken to the preceding quarter year, in the following table, multiplied by the number of years of service in the system as a safety member.

Age at Retirement	Fraction
50	2.000
50 1/4.....	2.025
50 1/2.....	2.050
50 3/4.....	2.075
51	2.100
51 1/4.....	2.125
51 1/2.....	2.150
51 3/4.....	2.175

52	.....	2.200
52	1/4.....	2.225
52	1/2.....	2.250
52	3/4.....	2.275
53	.....	2.300
53	1/4.....	2.325
53	1/2.....	2.350
53	3/4.....	2.375
54	.....	2.400
54	1/4.....	2.425
54	1/2.....	2.450
54	3/4.....	2.475
55	.....	2.500
55	1/4.....	2.525
55	1/2.....	2.550
55	3/4.....	2.575
56	.....	2.600
56	1/4.....	2.625
56	1/2.....	2.650
56	3/4.....	2.675
57	and over	2.700

(e) On and after January 1, 2013, an employer shall offer one or more of the safety formulas prescribed by this section to new members who are safety employees. The formula offered shall be the formula that is closest to, and provides a lower benefit at 55 years of age than, the formula provided to members in the same retirement classification offered by the employer on December 31, 2012.

(f) On and after January 1, 2013, an employer and its employees subject to Safety Option Plan One or Safety Option Plan Two may agree in a memorandum of understanding to be subject to Safety Option Plan One or the Basic Safety Plan, subject to the following:

(1) The lower plan shall apply to members first employed on or after the effective date of the lower plan, and shall be agreed to in a memorandum of understanding that has been collectively bargained in accordance with applicable laws.

(2) A retirement plan contract amendment with a public retirement system to alter a retirement formula pursuant to this subdivision shall not be implemented by the employer in the absence of a memorandum of understanding that has been collectively bargained in accordance with applicable laws.

(3) An employer shall not use impasse procedures to impose the lower plan.

(4) An employer shall not provide a different defined benefit for nonrepresented, managerial, or supervisory employees than the employer provides for other public employees, including represented employees, of the same employer who are in the same membership classifications.

(g) Pensionable compensation used to calculate the defined benefit shall be limited as described in Section 7522.10.

7522.30. (a) This section shall apply to all public employers and to all new members. Equal sharing of normal costs between public employers and public employees shall be the standard. The standard shall be that employees pay at least 50 percent of normal costs and that employers not pay any of the required employee contribution.

(b) The "normal cost rate" shall mean the annual actuarially

determined normal cost for the plan of retirement benefits provided to the new member and shall be established based on the actuarial assumptions used to determine the liabilities and costs as part of the annual actuarial valuation. The plan of retirement benefits shall include any elements that would impact the actuarial determination of the normal cost, including, but not limited to, the retirement formula, eligibility and vesting criteria, ancillary benefit provisions, and any automatic cost-of-living adjustments as determined by the public retirement system.

(c) New members employed by those public employers defined in paragraphs (2) and (3) of subdivision (i) of Section 7522.04, the Legislature, the California State University, and the judicial branch who participate in a defined benefit plan shall have an initial contribution rate of at least 50 percent of the normal cost rate for that defined benefit plan, rounded to the nearest quarter of 1 percent, unless a greater contribution rate has been agreed to pursuant to the requirements in subdivision (e). This contribution shall not be paid by the employer on the employee's behalf.

(d) Notwithstanding subdivision (c), once established, the employee contribution rate described in subdivision (c) shall not be adjusted on account of a change to the normal cost rate unless the normal cost rate increases or decreases by more than 1 percent of payroll above or below the normal cost rate in effect at the time the employee contribution rate is first established or, if later, the normal cost rate in effect at the time of the last adjustment to the employee contribution rate under this section.

(e) Notwithstanding subdivision (c), employee contributions may be more than one-half of the normal cost rate if the increase has been agreed to through the collective bargaining process, subject to the following conditions:

(1) The employer shall not contribute at a greater rate to the plan for nonrepresented, managerial, or supervisory employees than the employer contributes for other public employees, including represented employees, of the same employer who are in related retirement membership classifications.

(2) The employer shall not increase an employee contribution rate in the absence of a memorandum of understanding that has been collectively bargained in accordance with applicable laws.

(3) The employer shall not use impasse procedures to increase an employee contribution rate above the rate required by this section.

(f) If the terms of a contract, including a memorandum of understanding, between a public employer and its public employees, that is in effect on January 1, 2013, would be impaired by any provision of this section, that provision shall not apply to the public employer and public employees subject to that contract until the expiration of that contract. A renewal, amendment, or any other extension of that contract shall be subject to the requirements of this section.

7522.32. For the purposes of determining a retirement benefit to be paid to a new member of a public retirement system, the following shall apply:

(a) Final compensation shall mean the highest average annual pensionable compensation earned by the member during a period of at least 36 consecutive months, or at least three consecutive school years if applicable, immediately preceding his or her retirement or last separation from service if earlier, or during any other period of at least 36 consecutive months, or at least three consecutive

school years if applicable, during the member's applicable service that the member designates on the application for retirement.

(b) On or after January 1, 2013, an employer shall not modify a benefit plan to permit a calculation of final compensation on a basis of less than the average annual compensation earned by the member during a consecutive 36-month period, or three school years if applicable, for members who have been subject to at least a 36-month or three-school-year calculation prior to that date.

7522.34. (a) "Pensionable compensation" of a new member of any public retirement system means the normal monthly rate of pay or base pay of the member paid in cash to similarly situated members of the same group or class of employment for services rendered on a full-time basis during normal working hours, pursuant to publicly available pay schedules, subject to the limitations of subdivision (c).

(b) Compensation that has been deferred shall be deemed pensionable compensation when earned rather than when paid.

(c) Notwithstanding any other law, "pensionable compensation" of a new member does not include the following:

(1) Any compensation determined by the board to have been paid to increase a member's retirement benefit under that system.

(2) Compensation that had previously been provided in kind to the member by the employer or paid directly by the employer to a third party other than the retirement system for the benefit of the member and which was converted to and received by the member in the form of a cash payment.

(3) Any one-time or ad hoc payments made to a member.

(4) Severance or any other payment that is granted or awarded to a member in connection with or in anticipation of a separation from employment, but is received by the member while employed.

(5) Payments for unused vacation, annual leave, personal leave, sick leave, or compensatory time off, however denominated, whether paid in a lump sum or otherwise, regardless of when reported or paid.

(6) Payments for additional services rendered outside of normal working hours, whether paid in a lump sum or otherwise.

(7) Any employer-provided allowance, reimbursement, or payment, including, but not limited to, one made for housing, vehicle, or uniforms.

(8) Compensation for overtime work, other than as defined in Section 207(k) of Title 29 of the United States Code.

(9) Employer contributions to deferred compensation or defined contribution plans.

(10) Any bonus paid in addition to the compensation described in subdivision (a).

(11) Any other form of compensation a public retirement board determines is inconsistent with the requirements of subdivision (a).

(12) Any other form of compensation a public retirement board determines should not be pensionable compensation.

(13) (A) Any form of compensation identified that has been agreed to be nonpensionable pursuant to a memorandum of understanding for state employees bound by the memorandum of understanding. The state employer subject to the memorandum of understanding shall inform the retirement system of the excluded compensation and provide a copy of the memorandum of understanding.

(B) The state employer may determine if excluded compensation identified in subparagraph (A) shall apply to nonrepresented state employees who are aligned with state employees subject to the

memorandum of understanding described in subparagraph (A). The state employer shall inform the retirement system of the exclusion of this compensation and provide a copy of the public pay schedule detailing the exclusion.

7522.40. (a) A public employer shall not provide to a public employee who is elected or appointed, a trustee, excluded from collective bargaining, exempt from civil service, or a manager any vesting schedule for the employer contribution payable for postretirement health benefits that is more advantageous than that provided generally to other public employees, including represented employees, of the same public employer who are in related retirement membership classifications.

(b) This section shall not require an employer to change the vesting schedule for the employer contribution payable for postretirement health benefits of any public employee who was subject to a specific vesting schedule pursuant to statute, collective bargaining agreement, or resolution for these employer contributions prior to January 1, 2013, or who had a contractual agreement with an employer prior to January 1, 2013, for a specific vesting schedule for these employer contributions.

7522.42. (a) In addition to any other benefit limitation prescribed by law, for the purposes of determining a public retirement benefit paid to a new member of a public retirement system, the maximum salary, compensation, or payrate taken into account under the plan for any year shall not exceed the amount permitted to be taken into account under Section 401(a)(17) of Title 26 of the United States Code or its successor.

(b) A public employer shall not seek an exception to the prohibition in subdivision (a) on or after January 1, 2013.

(c) For employees first hired on or after January 1, 2013, a public employer shall not make employer contributions to any qualified retirement plan or plans on behalf of an employee based on that portion of the amount of total pensionable compensation that exceeds the amount specified in Section 401(a)(17) of Title 26 of the United States Code, or its successor.

(d) This section shall not apply to salary, compensation, or payrate paid to individuals who, due to their dates of hire, are not subject to the limits specified in subdivision (a).

7522.43. (a) A public employer shall not offer a plan of replacement benefits for members and any survivors or beneficiaries whose retirement benefits are limited by Section 415 of Title 26 of the United States Code. This section shall apply to new members.

(b) A public retirement system may continue to administer a plan of replacement benefits for employees first hired prior to January 1, 2013.

(c) A public employer that does not offer a plan of replacement benefits prior to January 1, 2013, shall not offer such a plan for any employee on or after January 1, 2013.

(d) A public employer that offers a plan of replacement benefits prior to January 1, 2013, shall not offer such a plan to any additional employee group to which the plan was not provided prior to January 1, 2013.

7522.44. This section shall apply to all public employers and to all public employees:

(a) Any enhancement to a public employee's retirement formula or retirement benefit adopted on or after January 1, 2013, shall apply only to service performed on or after the operative date of the enhancement and shall not be applied to any service performed prior to the operative date of the enhancement.

(b) If a change to a member's retirement membership classification or a change in employment results in an enhancement in the retirement formula or retirement benefit applicable to that member, that enhancement shall apply only to service performed on or after the operative date of the change and shall not be applied to any service performed prior to the operative date of the change.

(c) For purposes of this section, "operative date" in a collective bargaining agreement means one of the following:

(1) The date that the agreement is signed by the parties.

(2) A date agreed to by the parties that will occur after the date that the agreement is signed by the parties.

(3) A date designated by the parties that occurred prior to the date the agreement was signed if the most recent collective bargaining contract was expired at the time of the agreement and the date designated is not earlier than 12 months prior to the date of the agreement or the day after the last day of the expired bargaining contract, whichever occurred later.

(d) For purposes of this section, an increase to a retiree's annual cost-of-living adjustment within existing statutory limits shall not be considered to be an enhancement to a retirement benefit.

7522.46. (a) A public retirement system shall not allow the purchase of nonqualified service credit, as defined by Section 415(n)(3)(C) of the Internal Revenue Code of 1986 (26 U.S.C. Sec. 415(n)(3)(C)).

(b) Subdivision (a) shall not apply to an official application to purchase nonqualified service credit that is received by the public retirement system prior to January 1, 2013, that is subsequently approved by the system.

7522.48. (a) Final compensation of a member for the purpose of determining any pension or benefit resulting from service as an elective or appointed officer on a city council or a county board of supervisors accrued while in membership of a public retirement system shall be based on the highest average annual pensionable compensation earned by the member during the period of service in each elective or appointed office. Where that elective or appointed service is a consideration in the computation of any pension or benefit, the member may have more than one final compensation.

(b) Any final compensation calculation shall otherwise be subject to this article except that if any individual period of elective service is less than 36 months or three years, then the entire period of that individual's elected service shall be used to determine the final compensation for that period of service.

(c) This section shall apply to a member first elected or appointed to a city council or a county board of supervisors on or after January 1, 2013.

7522.52. (a) In any fiscal year, a public employer's contribution to a defined benefit plan, in combination with employee contributions to that defined benefit plan, shall not be less than the normal cost rate, as defined in Section 7522.30, for that defined benefit plan for that fiscal year.

(b) The board of a public retirement system may suspend contributions when all of the following apply:

(1) The plan is funded by more than 120 percent, based on a computation by the retirement system actuary in accordance with the Governmental Accounting Standards Board requirements that is included in the annual valuation.

(2) The retirement system actuary, based on the annual valuation, determines that continuing to accrue excess earnings could result in disqualification of the plan's tax-exempt status under the provisions of the federal Internal Revenue Code.

(3) The board determines that the receipt of any additional contributions required under this section would conflict with its fiduciary responsibility set forth in Section 17 of Article XVI of the California Constitution.

7522.56. (a) This section shall apply to any person who is receiving a pension benefit from a public retirement system and shall supersede any other provision in conflict with this section.

(b) A retired person shall not serve, be employed by, or be employed through a contract directly by, a public employer in the same public retirement system from which the retiree receives the benefit without reinstatement from retirement, except as permitted by this section.

(c) A person who retires from a public employer may serve without reinstatement from retirement or loss or interruption of benefits provided by the retirement system upon appointment by the appointing power of a public employer either during an emergency to prevent stoppage of public business or because the retired person has skills needed to perform work of limited duration.

(d) Appointments of the person authorized under this section shall not exceed a total for all employers in that public retirement system of 960 hours or other equivalent limit, in a calendar or fiscal year, depending on the administrator of the system. The rate of pay for the employment shall not be less than the minimum, nor exceed the maximum, paid by the employer to other employees performing comparable duties, divided by 173.333 to equal an hourly rate. A retired person whose employment without reinstatement is authorized by this section shall acquire no service credit or retirement rights under this section with respect to the employment unless he or she reinstates from retirement.

(e) (1) Notwithstanding subdivision (c), any retired person shall not be eligible to serve or be employed by a public employer if, during the 12-month period prior to an appointment described in this section, the retired person received any unemployment insurance compensation arising out of prior employment subject to this section with a public employer. A retiree shall certify in writing to the employer upon accepting an offer of employment that he or she is in compliance with this requirement.

(2) A retired person who accepts an appointment after receiving unemployment insurance compensation as described in this subdivision

shall terminate that employment on the last day of the current pay period and shall not be eligible for reappointment subject to this section for a period of 12 months following the last day of employment.

(f) A retired person shall not be eligible to be employed pursuant to this section for a period of 180 days following the date of retirement unless he or she meets one of the following conditions:

(1) The employer certifies the nature of the employment and that the appointment is necessary to fill a critically needed position before 180 days have passed and the appointment has been approved by the governing body of the employer in a public meeting. The appointment may not be placed on a consent calendar.

(2) (A) Except as otherwise provided in this paragraph, for state employees, the state employer certifies the nature of the employment and that the appointment is necessary to fill a critically needed state employment position before 180 days have passed and the appointment has been approved by the Department of Human Resources. The department may establish a process to delegate appointing authority to individual state agencies, but shall audit the process to determine if abuses of the system occur. If necessary, the department may assume an agency's appointing authority for retired workers and may charge the department an appropriate amount for administering that authority.

(B) For legislative employees, the Senate Committee on Rules or the Assembly Rules Committee certifies the nature of the employment and that the appointment is necessary to fill a critically needed position before 180 days have passed and approves the appointment in a public meeting. The appointment may not be placed on a consent calendar.

(C) For employees of the California State University, the Trustees of the California State University certifies the nature of the employment and that the appointment is necessary to fill a critically needed position before 180 days have passed and approves the appointment in a public meeting. The appointment may not be placed on a consent calendar.

(3) The retiree is eligible to participate in the Faculty Early Retirement Program pursuant to a collective bargaining agreement with the California State University that existed prior to January 1, 2013, or has been included in subsequent agreements.

(4) The retiree is a public safety officer or firefighter hired to perform a function or functions regularly performed by a public safety officer or firefighter.

(g) A retired person who accepted a retirement incentive upon retirement shall not be eligible to be employed pursuant to this section for a period of 180 days following the date of retirement and subdivision (f) shall not apply.

(h) This section shall not apply to a person who is retired from the State Teachers' Retirement System, and who is subject to Section 24214, 24214.5, or 26812 of the Education Code.

(i) This section shall not apply to (1) a subordinate judicial officer whose position, upon retirement, is converted to a judgeship pursuant to Section 69615, and he or she returns to work in the converted position, and the employer is a trial court, or (2) a retiree of the Judges' Retirement System or the Judges' Retirement System II who is assigned to serve in a court pursuant to Section 68543.5.

7522.57. (a) This section shall apply to any retired person who is

receiving a pension benefit from a public retirement system and is first appointed on or after January 1, 2013, to a salaried position on a state board or commission. This section shall supersede any other provision in conflict with this section.

(b) A person who is retired from a public retirement system may serve without reinstatement from retirement or loss or interruption of benefits provided that appointment is to a part-time state board or commission. A retired person whose employment without reinstatement is authorized by this subdivision shall acquire no benefits, service credit, or retirement rights with respect to the employment. Unless otherwise defined in statute, for the purpose of this section, a part-time appointment shall mean an appointment with a salary of no more than \$60,000 annually, which shall be increased in any fiscal year in which a general salary increase is provided for state employees. The amount of the increase provided by this section shall be comparable to, but shall not exceed, the percentage of the general salary increases provided for state employees during that fiscal year.

(c) A person who is retired from the Public Employees' Retirement System shall not serve on a full-time basis on a state board or commission without reinstatement unless that person serves as a nonsalaried member of the board or commission and receives only per diem authorized to all members of the board or commission. A person who serves as a nonsalaried member of a board or commission shall not earn any service credit or benefits in the Public Employees' Retirement System or make contributions with respect to the service performed.

(d) A person retired from a public retirement system other than the Public Employees' Retirement System who is appointed on a full-time basis to a state board or commission shall choose one of the following options:

(1) The person may serve as a nonsalaried member of the board or commission and continue to receive his or her retirement allowance, in addition to any per diem authorized to all members of the board or commission. The person shall not earn service credit or benefits in the Public Employees' Retirement System and shall not make contributions with respect to the service performed.

(2) (A) The person may suspend his or her retirement allowance or allowances and instate as a new member of the Public Employees' Retirement System for the service performed on the board or commission. The pensionable compensation earned pursuant to this paragraph shall not be eligible for reciprocity with any other retirement system or plan.

(B) Upon retiring for service after serving on the board or commission, the appointee shall be entitled to reinstatement of any suspended benefits, including employer provided retiree health benefits, that he or she was entitled to at the time of being appointed to the board or commission.

(e) Notwithstanding subdivisions (c) and (d), a person who retires from a public employer may serve without reinstatement from retirement or loss or interruption of benefits provided by the retirement system upon appointment to a full-time state board pursuant to Section 5075 of the Penal Code.

7522.70. (a) This section shall apply to any elected public officer who takes public office, or is reelected to public office, on or after January 1, 2006.

(b) If an elected public officer is convicted during or after

holding office of any felony involving accepting or giving, or offering to give, any bribe, the embezzlement of public money, extortion or theft of public money, perjury, or conspiracy to commit any of those crimes arising directly out of his or her official duties as an elected public officer, he or she shall forfeit all rights and benefits under, and membership in, any public retirement system in which he or she is a member, effective on the date of final conviction.

(c) (1) The elected public officer described in subdivision (b) shall forfeit only that portion of his or her rights and benefits that accrued on or after January 1, 2006, on account of his or her service in the elected public office held when the felony occurred.

(2) Paragraph (1) shall apply to the extent permissible by law.

(d) Any contributions made by the elected public officer described in subdivision (b) to the public retirement system that arose directly from or accrued solely as a result of his or her forfeited service as an elected public officer shall be returned, without interest, to the public officer.

(e) The public agency that employs an elected public officer described in subdivision (b) shall notify the public retirement system in which the officer is a member of the officer's conviction.

(f) An elected public officer shall not forfeit his or her rights and benefits pursuant to subdivision (b) if the governing body of the elected public officer's employer, including, but not limited to, the governing body of a city, county, or city and county, authorizes the public officer to receive those rights and benefits.

(g) For purposes of this section, "public officer" means an officer of the state, or an officer of a county, city, city and county, district, or authority, or any department, division, bureau, board, commission, agency, or instrumentality of any of these entities.

(h) This section applies to any person appointed to service for the period of an elected public officer's unexpired term of office.

(i) On and after January 1, 2013, this section shall not apply in any instance in which Section 7522.72 or 7522.74 applies.

7522.72. (a) This section shall apply to a public employee first employed by a public employer or first elected or appointed to an office before January 1, 2013, and, on and after that date, Section 7522.70 shall not apply.

(b) (1) If a public employee is convicted by a state or federal trial court of any felony under state or federal law for conduct arising out of or in the performance of his or her official duties, in pursuit of the office or appointment, or in connection with obtaining salary, disability retirement, service retirement, or other benefits, he or she shall forfeit all accrued rights and benefits in any public retirement system in which he or she is a member to the extent provided in subdivision (c) and shall not accrue further benefits in that public retirement system, effective on the date of the conviction.

(2) If a public employee who has contact with children as part of his or her official duties is convicted of a felony that was committed within the scope of his or her official duties against or involving a child who he or she has contact with as part of his or her official duties, he or she shall forfeit all accrued rights and benefits in any public retirement system in which he or she is a member to the extent provided in subdivision (c) and shall not accrue further benefits in that public retirement system, effective on the

date of the conviction.

(c) (1) A member shall forfeit all the rights and benefits earned or accrued from the earliest date of the commission of any felony described in subdivision (b) to the forfeiture date, inclusive. The rights and benefits shall remain forfeited notwithstanding any reduction in sentence or expungement of the conviction following the date of the member's conviction. Rights and benefits attributable to service performed prior to the date of the first commission of the felony for which the member was convicted shall not be forfeited as a result of this section.

(2) Paragraph (1) shall apply to the extent permissible by law.

(3) For purposes of this subdivision, "forfeiture date" means the date of the conviction.

(d) (1) Any contributions to the public retirement system made by the public employee described in subdivision (b) on or after the earliest date of the commission of any felony described in subdivision (b) shall be returned, without interest, to the public employee upon the occurrence of a distribution event unless otherwise ordered by a court or determined by the pension administrator.

(2) Any funds returned to the public employee pursuant to subdivision (d) shall be disbursed by electronic funds transfer to an account of the public employee, in a manner conforming with the requirements of the Internal Revenue Code, and the public retirement system shall notify the court and the district attorney at least three business days before that disbursement of funds.

(3) For the purposes of this subdivision, a "distribution event" means any of the following:

(A) Separation from employment.

(B) Death of the member.

(C) Retirement of the member.

(e) (1) Upon conviction, a public employee as described in subdivision (b) and the prosecuting agency shall notify the public employer who employed the public employee at the time of the commission of the felony within 60 days of the felony conviction of all of the following information:

(A) The date of conviction.

(B) The date of the first known commission of the felony.

(2) The operation of this section is not dependent upon the performance of the notification obligations specified in this subdivision.

(f) The public employer that employs or employed a public employee described in subdivision (b) and that public employee shall each notify the public retirement system in which the public employee is a member of that public employee's conviction within 90 days of the conviction. The operation of this section is not dependent upon the performance of the notification obligations specified in this subdivision.

(g) A public retirement system may assess a public employer a reasonable amount to reimburse the cost of audit, adjustment, or correction, if it determines that the public employer failed to comply with this section.

(h) If a public employee's conviction is reversed and that decision is final, the employee shall be entitled to do either of the following:

(1) Recover the forfeited rights and benefits as adjusted for the contributions received pursuant to subdivision (d).

(2) Redeposit those contributions and interest that would have accrued during the forfeiture period, as determined by the system actuary, and then recover the full amount of the forfeited rights and benefits.

(i) The forfeiture of rights and benefits provided in this section, with respect to judges, are in addition to and supplement the forfeitures and other requirements provided in Section 75033.2, 75062, 75526, or 75563. If there is a conflict between this section and Section 75033.2, 75062, 75526, or 75563, the provisions that result in the greatest forfeiture or provide the most stringent procedural requirements to the claim of a judge shall apply.

(j) A public employee first employed by a public employer or first elected or appointed to an office on or after January 1, 2013, shall be subject to Section 7522.74.

7522.74. (a) This section shall apply to a public employee first employed by a public employer or first elected or appointed to an office on or after January 1, 2013, and on and after that date, Section 7522.70 shall not apply.

(b) (1) If a public employee is convicted by a state or federal trial court of any felony under state or federal law for conduct arising out of or in the performance of his or her official duties, in pursuit of the office or appointment, or in connection with obtaining salary, disability retirement, service retirement, or other benefits, he or she shall forfeit all accrued rights and benefits in any public retirement system in which he or she is a member to the extent provided in subdivision (c) and shall not accrue further benefits in that public retirement system, effective on the date of the conviction.

(2) If a public employee who has contact with children as part of his or her official duties is convicted of a felony that was committed within the scope of his or her official duties against or involving a child who he or she has contact with as part of his or her official duties, he or she shall forfeit all accrued rights and benefits in any public retirement system in which he or she is a member to the extent provided in subdivision (c) and shall not accrue further benefits in that public retirement system, effective on the date of the conviction.

(c) (1) A member shall forfeit all the rights and benefits earned or accrued from the earliest date of the commission of any felony described in subdivision (b) to the forfeiture date, inclusive. The rights and benefits shall remain forfeited notwithstanding any reduction in sentence or expungement of the conviction following the date of the member's conviction. Rights and benefits attributable to service performed prior to the date of the first commission of the felony for which the member was convicted shall not be forfeited as a result of this section.

(2) Paragraph (1) shall apply to the extent permissible by law.

(3) For purposes of this subdivision, "forfeiture date" means the date of the conviction.

(d) (1) Any contributions to the public retirement system made by the public employee described in subdivision (b) on or after the earliest date of the commission of any felony described in subdivision (b) shall be returned, without interest, to the public employee upon the occurrence of a distribution event unless otherwise ordered by a court or determined by the pension administrator.

(2) Any funds returned to the public employee pursuant to subdivision (d) shall be disbursed by electronic funds transfer to an account of the public employee, in a manner conforming with the requirements of the Internal Revenue Code, and the public retirement system shall notify the court and the district attorney at least three business days before that disbursement of funds.

(3) For the purposes of this subdivision, a "distribution event"

means any of the following:

- (A) Separation from employment.
- (B) Death of the member.
- (C) Retirement of the member.

(e) (1) Upon conviction, a public employee as described in subdivision (b) and the prosecuting agency shall notify the public employer who employed the public employee at the time of the commission of the felony within 60 days of the felony conviction of all of the following information:

- (A) The date of conviction.
- (B) The date of the first known commission of the felony.

(2) The operation of this section is not dependent upon the performance of the notification obligations specified in this subdivision.

(f) The public employer that employs or employed a public employee described in subdivision (b) and that public employee shall each notify the public retirement system in which the public employee is a member of that public employee's conviction within 90 days of the conviction. The operation of this section is not dependent upon the performance of the notification obligations specified in this subdivision.

(g) A public retirement system may assess a public employer a reasonable amount to reimburse the cost of audit, adjustment, or correction, if it determines that the public employer failed to comply with this section.

(h) If a public employee's conviction is reversed and that decision is final, the employee shall be entitled to do either of the following:

(1) Recover the forfeited rights and benefits as adjusted for the contributions received pursuant to subdivision (d).

(2) Redeposit those contributions and interest that would have accrued during the forfeiture period, as determined by the system actuary, and then recover the full amount of the forfeited rights and benefits.

(i) The forfeiture of rights and benefits provided in this section, with respect to judges, are in addition to and supplement the forfeitures and other requirements provided in Section 75033.2, 75062, 75526, or 75563. If there is a conflict between this section and Section 75033.2, 75062, 75526, or 75563, the provisions that result in the greatest forfeiture or provide the most stringent procedural requirements to the claim of a judge shall apply.

(j) A public employee first employed by a public employer or first elected or appointed to an office before January 1, 2013, shall be subject to Section 7522.72.

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Michelle Green

From: BNSD, Post Retirement Administration
<BNSD_Post_Retirement_Administration@CalPERS.CA.GOV>
Sent: Thursday, August 13, 2015 3:59 PM
To: denmart1; Michelle Green
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request
Attachments: City of Banning interim City Manager.pdf

Hi All,

Here is what I have concluded based on the information you have both provided, and for the purpose of clarifying the compliance issues for Dean Martin and the City. FYI, I am basing my conclusion on the "Exhibit A" between the City and MuniTemps re: the City Manager position and the documents (attached) Michelle provided of the salary schedule and recruitment information. This is because I did not receive an actual contract for either position.

1. The interim Admin Services Director (ASD) position ended when Dean Martin began the City Manager (CM) position on 5/13/2015, even though Mr. Martin is doing the ASD duties in addition to the CM's. For post-retirement employment, the additional duties of ASD were rolled into the CM's duties.
2. The ASD position's one time appointment ended 5/12/2105. The interim CM will end, as I stated below 11/12/2015. There is no provision in retirement law for an extension of a one time appointment.
3. The difference between the minimum hourly for the ASD position and the hourly Dean Martin was paid, \$60.84 compared to \$60.00 is negligible. However, the City should comply with public pay schedule and pay Dean Martin the minimum **base salary** for the CM position which is \$81.82. (see attached). Just to reiterate - retired annuitants may not receive any additional benefit or compensation, other than the hourly equivalent to the base salary, as listed on the pay schedule for the position.
4. If the City agrees to comply with the minimum pay rate, the hourly rate should be paid and reported retroactively back to the interim CM appointment date.
5. If the City does not agree, then we would not administratively reinstate Dean Martin, based on this finding only, that his pay rate did not meet the minimum for the position.

I hope helps to clarify and if you have any questions, let me know.

Sincerely,

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division
916-795-2381

From: denmart1 [<mailto:denmart1>]
Sent: Thursday, July 30, 2015 4:44 PM
To: BNSD, Post Retirement Administration
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Based on PERS calculation method, the hourly rate slightly differs from the City's published rate of 85.96.

As far as end date for Interim CM, the November date appears reasonable based on the Munitemps contract with the City. How are you viewing the Administrative Svcs Dir since I am still also serving in that capacity? What would you consider to be end date?

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message -----

From: "BNSD, Post Retirement Administration"

<BNSD_Post_Retirement_Administration@CalPERS.CA.GOV>

Date: 07/30/2015 2:12 PM (GMT-08:00)

To: denmart1 <denmart1>

Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hello,

Thank you and, in order to get us all on the same page, I am summarizing the information I have received from both you and Michelle Banning with the City.

- You began serving as the interim Administrative Services Director 1/5/2015. Hourly Salary = \$60.00 per hour. The recruitment on the website for this position lists the salary range from \$126,545 - \$171,200. Our method to convert to hourly = $\$126,545 \div 12 = \$10,545.42$ monthly $\div 173.333$ (hourly conversion factor in the 21221(h) statute) = \$60.84. So from 1/1/2015 thru 5/12/2015 that's the minimum.
- You began serving as the interim City Manager (CM) 5/13/2015. Hourly Salary = \$60.00 per hour. The salary schedule the City provided, lists the salary range from \$170,189 \$230,244. Convert the annual to hourly as above = \$81.82 and that's the minimum.
- The end date to the interim CM appointment would be 11/12/2015 as your last day, for the contract period of 6 months.

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division

916-795-2381

GOVERNMENT STAFFING SERVICES, INC.

EXHIBIT "A"
of Municipal Staffing Agreement



Corporate Mailing Address: PO Box 718, Imperial Beach, CA 91933
Phone: 1-866-406-6864 • Fax: 1-866-498-6678
Website: www.munitemps.com

Municipality:	City of Banning	Notes
Client Contact:	Rita Chepparossa	Deputy HR Director
Interim Position:	City Manager	Dean Martin
Bill Rate per Hour:	\$90.16	All hours will be billed at this rate as long as the "minimum" 4/10 Work Scheduled is worked.
Hours per Week:	40+	
Start Date:	5/13/2015	
Expected Duration:	6 Months	Depending on Needs of City.

Authorized Signature:

[Signature]
City Representative

If CITY uses the services of Dean Martin presented as its direct employee, as an independent contractor, or through any person or firm other than MuniTemp during or within 183 days after any assignment of Dean Martin to CITY from MuniTemp, CITY must notify MuniTemp and pay a lump sum equal to (a) 6% of the annual salary offered Dean Martin if that Employee has worked a minimum of 980 hours or (b) 18% of the annual salary of Dean Martin if the Employee has worked less than 980 hours for CITY.

CITY OF BANNING
CLASSIFICATION & COMPENSATION PLAN
REVISED JULY 14, 2015
RESOLUTION NO. 2015-70 (AMENDING RESOLUTION NO. 2014-44)

MATRIX BY CLASS SERIES/JOB CODE

Class Series/Occupational Job Group	Job Code	Classification/Position	Salary Range	Bargaining Unit
1000 - CITY ADMINISTRATION SERIES				
City Administration Group	1010	City Manager	113	Council Contract
	1020	City Clerk/Executive Assistant	57	Elected
	1606	Executive Assistant/Deputy City Clerk	57	Conf/Gen
Financial Services Group	1105	Administrative Services Director/Deputy City Manager	101	Contract
	1115	Deputy Finance Director	87	Mgmt/Conf
	1160	Purchasing Manager	77	SBPEA
	5028	Utility Financial Analyst	76	SBPEA
	1125	Accountant II	59	IBEW-G
	1140	Accountant	54	IBEW-G
	1136	Accounting Specialist	53	IBEW-G
	1130	Financial Services Specialist	47	IBEW-G
	1215	Deputy Human Resources Director	83	Mgmt/Conf
	1230	Human Resources Technician	54	Conf/Gen
Utility Billing Group	1340	Senior Utility Billing Rep	48	IBEW-G
	1350	Utility Billing Representative	43	IBEW-G
	1340	Lead Field Service Representative	55	IBEW-U
	1325	Field Service Representative	51	IBEW-U
Information/Cable Systems Group	1410	Information Technology Coordinator	59	IBEW-G
	1416	Police Information Technology Technician	59	IBEW-G
	1415	Information Technology/Media Technician	57	IBEW-G
	1510	Cable Services Specialist	44	IBEW-G

Amended: 07/14/2015

Page 1

City of Banning
Salary Schedule
2.5506% Between Steps

Grade	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12	Step 13
109	Hourly 5,930.12 Annual 154,183.00	76,017.1 6,081.37 158,115.59	77,956.0 6,236.48 162,148.49	79,944.3 6,395.55 166,284.25	81,983.4 6,558.67 170,525.46	84,074.5 6,725.96 174,874.92	86,218.9 6,897.51 179,335.28	88,419.0 7,073.44 183,909.40	90,673.2 7,253.85 188,600.19	92,985.9 7,438.87 193,410.63	95,357.6 7,628.61 198,343.76	97,789.8 7,823.18 203,402.72	100,284.0 8,022.72 208,590.71
110	Hourly 6,078.35 Annual 158,037.00	77,917.3 6,233.38 162,067.89	79,904.8 6,392.37 166,201.60	81,942.7 6,553.41 170,440.73	84,032.7 6,722.82 174,787.99	86,178.0 6,894.08 179,246.14	88,374.0 7,069.92 183,817.99	90,628.1 7,250.25 188,506.46	92,939.7 7,436.17 193,314.50	95,310.2 7,624.81 198,245.18	97,742.1 7,819.23 203,301.62	100,234.1 8,018.73 208,487.03	102,790.7 8,223.26 213,804.70
111	Hourly 6,230.31 Annual 161,998.00	79,865.2 6,389.22 166,119.67	81,902.3 6,552.18 170,356.71	83,991.3 6,719.30 174,701.83	86,133.5 6,890.66 179,157.76	88,330.5 7,066.44 183,727.38	90,583.4 7,246.67 188,413.53	92,893.8 7,431.51 193,219.20	95,263.2 7,621.06 198,147.45	97,693.0 7,815.44 203,201.40	100,184.7 8,014.78 208,384.25	102,740.0 8,219.20 213,699.30	105,360.5 8,428.84 218,149.92
112	Hourly 6,388.08 Annual 166,038.00	81,852.0 6,548.96 170,272.57	83,850.0 6,716.00 174,515.95	85,912 6,887.30 179,069.70	88,037.0 7,062.96 183,637.05	90,238.9 7,243.11 188,320.90	92,518.2 7,427.85 193,124.21	94,862 7,617.31 198,050.04	97,264.50 7,811.60 203,101.50	100,135.5 8,010.84 208,281.81	102,689.5 8,215.15 213,594.25	105,308.7 8,424.70 219,042.18	107,994.7 8,639.58 224,828.07
113	Hourly 6,545.73 Annual 170,189.00	83,908.6 6,712.69 174,529.84	86,048.7 6,883.90 178,981.40	88,243.5 7,059.48 183,546.50	90,494.2 7,239.54 188,228.04	92,802.4 7,424.19 193,028.99	95,169.4 7,613.65 197,952.38	97,596.8 7,807.74 203,001.35	100,086.1 8,006.89 208,179.10	102,638.9 8,211.11 213,488.92	105,258.3 8,420.54 218,934.17	107,941.5 8,635.32 224,518.30	110,684.6 8,855.57 230,244.87
114	Hourly 6,709.38 Annual 174,444.00	86,064 6,880.51 178,893.37	88,200.1 7,056.01 183,456.22	90,437 7,235.98 188,135.46	92,758 7,420.54 192,834.04	95,122.6 7,609.81 197,855.02	97,548.8 7,803.90 202,901.51	100,036.9 8,002.95 208,076.71	102,584 8,207.07 213,383.92	105,205.0 8,416.40 218,826.49	107,888.4 8,631.07 224,407.87	110,640.2 8,851.23 230,131.82	113,462.2 9,076.98 236,001.36
115	Hourly 6,877.12 Annual 178,905.00	88,156.5 7,052.52 183,366.60	90,405.1 7,232.40 188,042.52	92,710.9 7,416.87 192,836.74	95,075.6 7,606.05 197,757.28	97,500.6 7,800.05 202,801.28	99,987.5 7,999.00 207,873.53	102,537.7 8,203.02 213,276.51	105,153.1 8,412.25 218,718.39	107,835.1 8,626.81 224,297.02	110,585.5 8,846.84 230,017.94	113,406.1 9,072.49 235,884.78	116,286.7 9,303.89 241,901.28
116	Hourly 7,043.04 Annual 183,275.00	90,360.4 7,228.93 187,849.61	92,655.1 7,413.21 192,743.45	95,028.6 7,602.29 197,658.57	97,452.4 7,786.20 202,701.07	99,938.1 7,985.04 207,871.17	102,487.1 8,186.97 213,173.13	105,101.1 8,408.09 218,610.32	107,761.8 8,622.55 224,186.20	110,530.9 8,842.47 229,904.29	113,350.1 9,068.01 235,788.23	116,241.2 9,289.30 241,781.74	119,206.1 9,536.49 247,948.62

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Michelle Green

From: BNSD, Post Retirement Administration
<BNSD_Post_Retirement_Administration@CalPERS.CA.GOV>
Sent: Friday, August 14, 2015 12:33 PM
To: Michelle Green
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hi Michelle,

Our laws re: administering the retired annuitant requirements, authorize CalPERS to reinstate the retiree. Reinstatement would have financial implications to the City. However, since we are the program area making the determination, and we are saying - if the City will not comply with paying Dean Martin the minimum pay rate - then we will not reinstate him for that reason alone. So the short answer is – no, not from us.

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division
916-795-2381

From: mgreen@ci.banning.ca.us [mailto:mgreen@ci.banning.ca.us]
Sent: Thursday, August 13, 2015 4:56 PM
To: BNSD, Post Retirement Administration
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hi Susan,

Thank you so much for all of your time and effort regarding this matter. I have one more question for clarification, because I know it will come up....

If the City does not agree to pay Mr. Martin and comply with the minimum pay rate, will there be any adverse impact to the City?

Thank you.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Thursday, August 13, 2015 3:59 PM
To: denmart1; Michelle Green
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hi All,

Here is what I have concluded based on the information you have both provided, and for the purpose of clarifying the compliance issues for Dean Martin and the City. FYI, I am basing my conclusion on the "Exhibit A" between the City and

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From: Homer [mailto:homercroy@]
Sent: Wednesday, December 03, 2014 2:10 PM
To: Rita Chapparosa
Subject: Re: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Thank you Rita. I did talk to Mr. Wong at lunch today.

Sent from my iPhone

On Dec 3, 2014, at 12:57 PM, <rchapparosa@ci.banning.ca.us> wrote:

We all miss you! Thank you,

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: Homer [mailto:homercroy@]
Sent: Wednesday, December 03, 2014 12:50 PM
To: Rita Chapparosa
Subject: Re: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Thank you for the update on the PERS issue. The family is doing well after her passing. It does not matter if you give Mr. Wong. I really don't know anything about his case or his termination.

Sent from my iPhone

On Dec 3, 2014, at 11:47 AM, <rchapparosa@ci.banning.ca.us> wrote:

Homer,

Sorry to hear about your mother's passing and I hope you are doing well.

As you can see below, Muni Temps has not complied with reporting you as an annuitant. John Herrera said he would take care of this matter. Please follow up with him.

In addition, our attorney, Mr. Wong handling the Andy Takata lawsuit will be contacting you directly requesting information from you. Are you okay with me giving him your personal information or would you like to contact him directly?

Rita Chapparosa
Deputy Human Resources Director

City of Banning

Email: rchapparosa@ci.banning.ca.us

Phone: 951-922-3147 Fax: 951-922-3157

From: John Herrera [<mailto:jherrera@munitemps.com>]

Sent: Wednesday, December 03, 2014 11:35 AM

To: Rita Chapparosa

Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Hi Rita,

I've already called Liz and left her a message. I will address this immediately.

Also, I will send you City Manager candidates ASAP.

Thank you! ☺

John Herrera, CPA, MPA

President/CEO

MuniTemps / Municipal Staffing Solutions

"Serving all local government organizations"

www.munitemps.com

Nationwide Corporate Headquarters:

14241 E. Firestone Blvd, Suite 400

La Mirada, CA 90638

1-866-406-6864 Office

1-866-498-6678 Fax

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From: rchapparosa@ci.banning.ca.us [<mailto:rchapparosa@ci.banning.ca.us>]

Sent: Wednesday, December 03, 2014 11:29 AM

To: John Herrera

Subject: FW: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Importance: High

John,

Please contact CalPERS immediately on the reporting of an annuitant, Homer Crow. This could inhibit him from receiving retirement benefits.

In addition, please send me Homer's personal email address and phone number because our City Attorney needs to contact him on a City matter involving a lawsuit.

Thank you,

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: BNSD, Post Retirement Administration
[mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Friday, April 25, 2014 2:30 PM
To: Rita Chapparosa
Cc: BNSD, Post Retirement Administration
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Hi Rita,

The recruitment process must be underway with his Interim appointment. If the position has not been filled by June 30, 2014 and Homer Croy is serving as the Interim at that time, he may work in the next fiscal year as long as compliance to GC 21221(h) continues.

Will Munitemps be reporting the hours and payrate for Homer Croy to the City to report in my CalPERS? If not, how will the reporting be done?

Liz Burke | Retirement Program Specialist II
Post Retirement Administration | Benefit Services Division
Phone: 916-795-3120 | Fax: 916-795-0701
liz.burke@calpers.ca.gov

From: rchapparosa@ci.banning.ca.us [mailto:rchapparosa@ci.banning.ca.us]
Sent: Friday, April 25, 2014 1:36 PM
To: BNSD, Post Retirement Administration
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Liz Burke,

We recently hired Mr. Croy on an interim basis until we hire a City Manager and Police Chief. Mr. Croy is in the process of planning the recruitment process once he has direction from the City Council. He feels that it will take 3 to 4 months or more and depending when the applicant can start. As you can understand, the position is difficult to fill and due to the recruitment process. Once we have begun the recruitment, we can forward a job announcement for your file.

In addition, the temporary services, MuniTemps will be reporting Mr. Croy as retired annuitant. The City, Mr. Croy and the MuniTemp will comply on the requirements of retired annuitants which will not exceed 960 hours in a fiscal year. Could Mr. Croy work the next fiscal year under the 960 if we do not fill the City Manager position by June 30, 2014?

Please contact me if you need additional information.

Thank you,

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: BNSD, Post Retirement Administration
[mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Tuesday, April 08, 2014 8:08 AM
To: Michelle Green; BNSD, Post Retirement Administration
Cc: June Overholt; Rita Chapparosa
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Dear Ms. Green,

We will need a copy of the recruitment for the City Manager position or the status of the recruitment process. Mr. Croy will need to be enrolled and reported as a retired annuitant in my CalPERS. Hiring Mr. Croy through a third party employer does not preclude the City from reporting him as a retired annuitant and he is subject to the retired annuitant requirements in GC 21221(h) listed below:

- 1) The retiree has specialized skills needed to perform work of limited duration or the retiree's employment is needed in an emergency to prevent stoppage of public business
- 2) The retiree's temporary employment will not exceed 960 hours in a fiscal year (July 1st to June 30th, the following year).
- 3) The compensation cannot exceed or be less than the maximum monthly base salary paid to other employees performing comparable duties, divided by 173.333 to equal an hourly rate.
- 4) Retired annuitants cannot receive any benefit, incentive, compensation in lieu of benefits, or other form of compensation in addition to an hourly payrate.

The position of City Manager would be considered under the common law control of the City. CalPERS utilizes the common law control test to determine whether an individual is an employee of a CalPERS-covered agency. This practice was affirmed by the California Supreme Court in the Metropolitan Water District of Southern California v. Superior Court of Los Angeles case, which stated that the PERL "incorporates common law principles into its definition of a contracting agency employee and...requires contracting public agencies to enroll in CalPERS all common law employees except those excluded under a specific statutory or contractual provision."

There are a number of definitions and standards as to what constitutes "control." The Supreme Court in the Cargill case cited the Tieberg v. Unemployment Insurance Appeals Board case in this regard, which stated that "The right to control the means

by which the work is accomplished is clearly the most significant test of the employment relationship and the other matters constitute merely 'secondary elements'.

We suggest reviewing the following Board Precedential Decisions for more information. The Lee Neidengard case <http://www.calpers.ca.gov/eip-docs/about/leg-reg-statutes/board-decisions/pd-05-01-neidengard.pdf>) and the Galt Services Authority case http://www.calpers.ca.gov/eip-docs/about/leg-reg-statutes/board-decisions/galt_services_authority.pdf

If you have any question, please email our mailbox
BNSD_Post_Retirement_Administration@calpers.ca.gov

Liz Burke | Retirement Program Specialist II
Post Retirement Administration | Benefit Services Division
Phone: 916-795-3120 | Fax: 916-795-0701

From: mgreen@ci.banning.ca.us [<mailto:mgreen@ci.banning.ca.us>]
Sent: Monday, April 07, 2014 5:09 PM
To: BNSD, Post Retirement Administration
Cc: joverholt@ci.banning.ca.us; rchapparosa@ci.banning.ca.us
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Ms. Burke,

Mr. Croy is being hired through MuniTemps. They are aware of the CalPERS requirements and will be able to provide you with this information.

I will forward your request to MuniTemps.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration
[mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Monday, April 07, 2014 4:05 PM
To: Michelle Green
Cc: BNSD, Post Retirement Administration
Subject: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Dear Ms. Green,

We saw an article dated April 7, 2014 in the Riverside Press-Enterprise regarding the City of Banning naming the retiree Homer Croy as the Interim City Manager for 4 to 6 months.

It is very important for the City to make sure the retired annuitant employment is kept in compliance with the retirement law. The article mentions he will be paid \$96.14 an hour with an estimated monthly cost of \$16,700. Please provide a copy of his post retirement employment agreement, a copy of the publicly available salary schedule and provide a status of the recruitment. His appointment as the interim City Manager would be permitted under Government Code section 21221(h). Please review the requirements for that type of appointment in the Circular Letter mentioned below.

Here is a link to the Circular Letter 200-002-14 issued 1/14/2014 on the subject: Post Service Retirement Employment Requirements.

<http://www.calpers.ca.gov/eip-docs/employer/cir-ltrs/2014/200-002-14.pdf>

If you have any questions, please contact us at
BNSD_Post_Retirement_Administration@calpers.ca.gov.

Liz Burke | Retirement Program Specialist II
Post Retirement Administration | Benefit Services Division
916-795-3120 fax 916-795-0701

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Tuesday, April 08, 2014 10:29 AM
To: Michelle Green; BNSD, Post Retirement Administration
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Hi Ms. Green,

You would report what the retiree is being paid.

Liz Burke | Retirement Program Specialist II
Post Retirement Administration | Benefit Services Division
Phone: 916-795-3120 | Fax: 916-795-0701
liz.burke@calpers.ca.gov

From: mgreen@ci.banning.ca.us [<mailto:mgreen@ci.banning.ca.us>]
Sent: Tuesday, April 08, 2014 10:16 AM
To: BNSD, Post Retirement Administration
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Ms. Burke,

I have a question, since the amount we are paying the agency is obviously not what the individual is getting paid. Do we report only what the individual is getting paid or do we include the overhead charges of the agency?

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Tuesday, April 08, 2014 8:08 AM
To: Michelle Green; BNSD, Post Retirement Administration
Cc: June Overholt; Rita Chapparosa
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Dear Ms. Green,

We will need a copy of the recruitment for the City Manager position or the status of the recruitment process. Mr. Croy will need to be enrolled and reported as a retired annuitant in my| CalPERS. Hiring Mr. Croy through a third party employer does not preclude the City from reporting him as a retired annuitant and he is subject to the retired annuitant requirements in GC 21221(h) listed below:

- 1) The retiree has specialized skills needed to perform work of limited duration or the retiree's employment is needed in an emergency to prevent stoppage of public business
- 2) The retiree's temporary employment will not exceed 960 hours in a fiscal year (July 1st to June 30th, the following year).
- 3) The compensation cannot exceed or be less than the maximum monthly base salary paid to other employees performing comparable duties, divided by 173.333 to equal an hourly rate.

- 4) Retired annuitants cannot receive any benefit, incentive, compensation in lieu of benefits, or other form of compensation in addition to an hourly payrate.

The position of City Manager would be considered under the common law control of the City. CalPERS utilizes the common law control test to determine whether an individual is an employee of a CalPERS-covered agency. This practice was affirmed by the California Supreme Court in the Metropolitan Water District of Southern California v. Superior Court of Los Angeles case, which stated that the PERL "incorporates common law principles into its definition of a contracting agency employee and...requires contracting public agencies to enroll in CalPERS all common law employees except those excluded under a specific statutory or contractual provision."

There are a number of definitions and standards as to what constitutes "control." The Supreme Court in the Cargill case cited the Tieberg v. Unemployment Insurance Appeals Board case in this regard, which stated that "The right to control the means by which the work is accomplished is clearly the most significant test of the employment relationship and the other matters constitute merely 'secondary elements'.

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If you have any question, please email our mailbox BNSD_Post_Retirement_Administration@calpers.ca.gov

Liz Burke | Retirement Program Specialist II
Post Retirement Administration | Benefit Services Division
Phone: 916-795-3120 | Fax: 916-795-0701

From: mgreen@ci.banning.ca.us [<mailto:mgreen@ci.banning.ca.us>]
Sent: Monday, April 07, 2014 5:09 PM
To: BNSD, Post Retirement Administration
Cc: joverholt@ci.banning.ca.us; rchapparosa@ci.banning.ca.us
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Ms. Burke,

Mr. Croy is being hired through MuniTemps. They are aware of the CalPERS requirements and will be able to provide you with this information.

I will forward your request to MuniTemps.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Monday, April 07, 2014 4:05 PM
To: Michelle Green
Cc: BNSD, Post Retirement Administration
Subject: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Dear Ms. Green,

We saw an article dated April 7, 2014 in the Riverside Press-Enterprise regarding the City of Banning naming the retiree Homer Croy as the Interim City Manager for 4 to 6 months.

It is very important for the City to make sure the retired annuitant employment is kept in compliance with the retirement law. The article mentions he will be paid \$96.14 an hour with an estimated monthly cost of \$16,700. Please provide a copy of his post retirement employment agreement, a copy of the publicly available salary schedule and provide a status of the recruitment. His appointment as the interim City Manager would be permitted under Government Code section 21221(h). Please review the requirements for that type of appointment in the Circular Letter mentioned below.

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If you have any questions, please contact us at BNSD_Post_Retirement_Administration@calpers.ca.gov.

Liz Burke | Retirement Program Specialist II

Post Retirement Administration | Benefit Services Division

916-795-3120 fax 916-795-0701

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From: Michelle Green
Sent: Monday, June 29, 2015 11:05 AM
To: Rita Chapparosa
Subject: FW: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

See the corrected wording below.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Tuesday, April 08, 2014 8:08 AM
To: Michelle Green; BNSD, Post Retirement Administration
Cc: June Overholt; Rita Chapparosa
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Dear Ms. Green,

We will need a copy of the recruitment for the City Manager position or the status of the recruitment process. Mr. Croy will need to be enrolled and reported as a retired annuitant in my CalPERS. Hiring Mr. Croy through a third party employer does not preclude the City from reporting him as a retired annuitant and he is subject to the retired annuitant requirements in GC 21221(h) listed below:

- 1) The retiree has specialized skills needed to perform work of limited duration or the retiree's employment is needed in an emergency to prevent stoppage of public business
- 2) The retiree's temporary employment will not exceed 960 hours in a fiscal year (July 1st to June 30th, the following year).
- 3) The compensation cannot exceed the **Maximum** or be less than the **Minimum** monthly base salary paid to other employees performing comparable duties, divided by 173.333 to equal an hourly rate.
- 4) Retired annuitants cannot receive any benefit, incentive, compensation in lieu of benefits, or other form of compensation in addition to an hourly payrate.

The position of City Manager would be considered under the common law control of the City. CalPERS utilizes the common law control test to determine whether an individual is an employee of a CalPERS-covered agency. This practice was affirmed by the California Supreme Court in the Metropolitan Water District of Southern California v. Superior Court of Los Angeles case, which stated that the PERL "incorporates common law principles into its definition of a contracting agency employee and...requires contracting public agencies to enroll in CalPERS all common law employees except those excluded under a specific statutory or contractual provision."

There are a number of definitions and standards as to what constitutes "control." The Supreme Court in the Cargill case cited the Tieberg v. Unemployment Insurance Appeals Board case in this regard, which stated that "The right to control the means by which the work is accomplished is clearly the most significant test of the employment relationship and the other matters constitute merely 'secondary elements'.

We suggest reviewing the following Board Precedential Decisions for more information. The Lee Neidengard case <http://www.calpers.ca.gov/eip-docs/about/leg-reg-statutes/board-decisions/pd-05-01-neidengard.pdf> and the

Galt Services Authority case http://www.calpers.ca.gov/eip-docs/about/leg-reg-statutes/board-decisions/galt_services_authority.pdf

If you have any question, please email our mailbox BNSD_Post_Retirement_Administration@calpers.ca.gov

Liz Burke | Retirement Program Specialist II
Post Retirement Administration | Benefit Services Division
Phone: 916-795-3120 | Fax: 916-795-0701

From: mgreen@ci.banning.ca.us [<mailto:mgreen@ci.banning.ca.us>]
Sent: Monday, April 07, 2014 5:09 PM
To: BNSD, Post Retirement Administration
Cc: joverholt@ci.banning.ca.us; rchapparosa@ci.banning.ca.us
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Ms. Burke,

Mr. Croy is being hired through MuniTemps. They are aware of the CalPERS requirements and will be able to provide you with this information.

I will forward your request to MuniTemps.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Monday, April 07, 2014 4:05 PM
To: Michelle Green
Cc: BNSD, Post Retirement Administration
Subject: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Dear Ms. Green,

We saw an article dated April 7, 2014 in the Riverside Press-Enterprise regarding the City of Banning naming the retiree Homer Croy as the Interim City Manager for 4 to 6 months.

It is very important for the City to make sure the retired annuitant employment is kept in compliance with the retirement law. The article mentions he will be paid \$96.14 an hour with an estimated monthly cost of \$16,700. Please provide a copy of his post retirement employment agreement, a copy of the publicly available salary schedule and provide a status of the recruitment. His appointment as the interim City Manager would be permitted under Government Code section 21221(h). Please review the requirements for that type of appointment in the Circular Letter mentioned below.

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<http://www.calpers.ca.gov/eip-docs/employer/cir-ltrs/2014/200-002-14.pdf>

If you have any questions, please contact us at BNSD_Post_Retirement_Administration@calpers.ca.gov.

Liz Burke | Retirement Program Specialist II
Post Retirement Administration | Benefit Services Division
916-795-3120 fax 916-795-0701

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From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]

Sent: Friday, July 17, 2015 4:08 PM

To: Michelle Green

Subject: RE: Post Retirement Employment of Retired Annuitants - H Croy and D Martin

Hi Michelle,

I am forwarding this entire communication to my manager because of MuniTemps' response below. However, I know my area has communicated to other retired annuitants (RAs) who contracted with MuniTemps to work for a CalPERS employer and we have requested hours worked and pay rate information, etc. So, I don't know why Mr. Herrera states that no other employer, other than the City of Banning, etc... If this is true, then why is MuniTemps "... working with CalPERS to set up an account..." if the City of Banning is the only CalPERS employer asking for a record of RA hours and pay rate information?

In the meantime, my suggestion to you is to ask Dean Martin to fill out separate time sheets for the City, and for him to document with the City the hourly pay rate he is receiving. Because the PEPPRA Section 7522.56 clearly states the requirements for Mr. Martin, if he wants to remain in retirement and not be reinstated:

" (b) A retired person shall not serve, be employed by, or be employed through a contract directly by, a public employer in the same public retirement system from which the retiree receives the benefit without reinstatement from retirement, except as permitted by this section.

(d) ...The rate of pay for the employment shall not be less than the minimum, nor exceed the maximum, paid by the employer to other employees performing comparable duties, divided by 173.333 to equal an hourly rate." "

His appointment also has to comply with retirement law Article 8, Section 21221(h):

"(h) Upon interim appointment by the governing body of a contracting agency to a vacant position during recruitment for a permanent appointment and deemed by the governing body to require specialized skills or during an emergency to prevent stoppage of public business. A retired person shall only be appointed once to this vacant position. These appointments, including any made concurrently pursuant to Section 21224 or 21229, shall not exceed a combined total of 960 hours for all employers each fiscal year. The compensation for the interim appointment shall not exceed the maximum monthly base salary paid to other employees performing comparable duties as listed on a publicly available pay schedule for the vacant position divided by 173.333 to equal an hourly rate. A retired person appointed to a vacant position pursuant to this subdivision shall not receive any benefits, incentives, compensation in lieu of benefits, or any other forms of compensation in addition to the hourly rate."

The above requirements are also stated in Employment After Retirement Publication 33. I am sending Mr. Martin a copy today. Let me know if any additional questions.

Thanks,

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division
916-795-2381

From: mgreen@ci.banning.ca.us [mailto:mgreen@ci.banning.ca.us]

Sent: Thursday, July 16, 2015 10:12 AM

To: BNSD, Post Retirement Administration

Subject: RE: Post Retirement Employment of Retired Annuitants - H Croy and D Martin

Importance: High

Hi Susan,

We are getting no cooperation from the temp agency (see his response below). How would you like to proceed?

Also, he states that he has not been required to report hours for any of his other PERS annuitants, except for the City of Banning. Why would that be?

Thanks.

M

MuniTemps' response:

Michelle,

MuniTemps will comply with any reporting requirements of CalPERS, so long as we can maintain confidentiality as a private employer. Because MuniTemps is not a CalPERS employer, any reporting of hours worked by our CalPERS annuitant employees would require some type of reporting "system" provided to MuniTemps by CalPERS. This is no different that the payroll taxes MuniTemps pays on behalf of CalPERS annuitant employees to the IRS and EDD.

Our legal counsel has been working with CalPERS to set up an account to allow MuniTemps, which is not a CalPERS employer, to report the hours the City of Banning is asking MuniTemps to report to CalPERS, however, this is a work in progress. **Note:** *No other CalPERS employer where MuniTemps has CalPERS annuitant employees working, has asked for reporting of hours by MuniTemps to CalPERS.*

Again, if a CalPERS annuitant wants to discuss their earnings with CalPERS, they can do that under confidentiality *directly with* CalPERS, however, we require CalPERS to keep this information confidential because we are a private business.

MuniTemps cannot disclose pay rates of our employees, including CalPERS annuitants to any other entity. However, MuniTemps will disclose information directly to CalPERS (like we do to IRS and EDD), with the written consent of our employees, again, if CalPERS agrees to keep our information confidential.

We hope this helps you with your decisions.

John Herrera, C.P.A., MPA

President/CEO

MuniTemps / Municipal Staffing Solutions

"Serving all local government organizations"

www.munitemps.com

Nationwide Corporate Headquarters:

14241 E. Firestone Blvd, Suite 400

La Mirada, CA 90638

1-866-406-6864 Office

1-866-498-6678 Fax

Michelle M. Green, M.B.A.

Deputy Finance Director

City of Banning

(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]

Sent: Thursday, June 25, 2015 1:57 PM

To: Michelle Green

Subject: RE: Post Retirement Employment of Retired Annuitants - H Croy and D Martin

Hi Michelle,

Thanks for getting back to me and hopefully you will be able to get the information. I would think Dean Martin, as the CalPERS retiree, should have a copy of his agreement and the compensation. And since this is a compliance issue - it is in his best interest to be able to demonstrate that his employment is in compliance.

And your question about paying the comparable salary to a retired annuitant, do you have an actual sample of the salary scale and the pay rate? Basically, I am not sure if I am understanding your question. Does the scale apply to one type of job with duties that both active and retired annuitants (RA) are doing?

Susan Tasa | Retirement Program Specialist II | **Post Retirement Administration**

Benefit Services Division | 916.795.2381

From: mgreen@ci.banning.ca.us [<mailto:mgreen@ci.banning.ca.us>]

Sent: Wednesday, June 24, 2015 5:59 PM

To: BNSD, Post Retirement Administration

Subject: RE: Post Retirement Employment of Retired Annuitants - H Croy and D Martin

Thank you Susan.

I do not have copies of Mr Martin's contract with MuniTemps. They guard that with their lives. They don't even want to tell us how much he actually makes. That is why originally had them contact PERS to submit hours. I will see what I can do to get those. And yes, you are correct the situation is the same as Mr. Croy's.

Was my interpretation of item #3 correct?

Michelle M. Green, M.B.A.

Deputy Finance Director

City of Banning

(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Wednesday, June 24, 2015 4:45 PM
To: Michelle Green
Subject: RE: Post Retirement Employment of Retired Annuitants - H Croy and D Martin

Hi Michelle,

I am getting back to you on your questions since my co-worker, Liz Burke is now retired.

Re: Homer Croy – CID 1576884835 - Yes you can enroll him and report him retro-actively. The instructions on how to enroll and report are in student guides available for Course 103: Retirement Enrollment Basics and Course 104 Payroll Reporting Basics on our website www.calpers.ca.gov in the CalPERS Employer Education Center in my|CalPERS Training Classes. Here is a link: <http://www.calpers.ca.gov/index.jsp?bc=/employer/education-events/education/training-classes/home.xml>. Any questions, then you or the pay roll reporting staff can contact someone in Employer Training by calling the regular number 888-225-7377 and they will assist with the process.

We have a second issue involving a retiree working for the City. Dean Martin CID 6627117516 is asking about being hired as the Interim Administrative Services Director during recruitment. He states he also was asked to serve as the Interim City Manager. Mr. Martin hired through MuniTemps and has some questions that need to be addressed. To do so, I need to have the following:

- 1) Copy of his contract or employment agreement(s) with MuniTemps and the City.
- 2) Duty statements for Administrative Services Director and City Manager.
- 3) Copy of the salary schedule.

We told Mr. Martin in a previous email that possibly he should have his post retirement employment reviewed for an independent contractor determination. However, I think this may be unnecessary. Even though he is hired through MuniTemps, his employment appears to be more as an "employee" and therefore under the restrictions of GCS 21221(h). I do need the additional details but it seems as if his situation is similar to Homer Croy.

Thanks!

Susan Tasa | Retirement Program Specialist II | **Post Retirement Administration**
Benefit Services Division | 916.795.2381

From: mgreen@ci.banning.ca.us [mailto:mgreen@ci.banning.ca.us]
Sent: Monday, June 22, 2015 3:31 PM
To: BNSD, Post Retirement Administration
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835
Importance: High

Dear Liz,

We have a few questions.

When you originally contacted us about reporting hours for Homer Croy we had worked with the temp agency (MuniTemps) and they assured us that they had made arrangements to report hours to you. We were just recently

informed that hours have not been reported for Homer Croy (they claim they sent the info to you and it was returned because they were not a contracting agency).

How would you like us to proceed? Homer is no longer with us. Is there some way to report retroactively? This also affects another annuitant we have hired since then.

Also, for clarification on #3 below..... if a position is paid on a scale with steps 1 – 13, the annuitant hired for that position must be paid at step 13 of that scale? Is that correct?

Thank you for your assistance.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD Post Retirement Administration@CalPERS.CA.GOV]

Sent: Tuesday, April 08, 2014 8:08 AM

To: Michelle Green; BNSD, Post Retirement Administration

Cc: June Overholt; Rita Chapparosa

Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Dear Ms. Green,

We will need a copy of the recruitment for the City Manager position or the status of the recruitment process. Mr. Croy will need to be enrolled and reported as a retired annuitant in my|CalPERS. Hiring Mr. Croy through a third party employer does not preclude the City from reporting him as a retired annuitant and he is subject to the retired annuitant requirements in GC 21221(h) listed below:

- 1) The retiree has specialized skills needed to perform work of limited duration or the retiree's employment is needed in an emergency to prevent stoppage of public business
- 2) The retiree's temporary employment will not exceed 960 hours in a fiscal year (July 1st to June 30th, the following year).
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The position of City Manager would be considered under the common law control of the City. CalPERS utilizes the common law control test to determine whether an individual is an employee of a CalPERS-covered agency. This practice was affirmed by the California Supreme Court in the Metropolitan Water District of Southern California v. Superior Court of Los Angeles case, which stated that the PERL "incorporates common law principles into its definition of a contracting agency employee and...requires contracting public agencies to enroll in CalPERS all common law employees except those excluded under a specific statutory or contractual provision."

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Galt Services Authority case http://www.calpers.ca.gov/eip-docs/about/leg-reg-statutes/board-decisions/galt_services_authority.pdf

If you have any question, please email our mailbox BNSD_Post_Retirement_Administration@calpers.ca.gov

Liz Burke | Retirement Program Specialist II
Post Retirement Administration | Benefit Services Division
Phone: 916-795-3120 | Fax: 916-795-0701

From: mgreen@ci.banning.ca.us [<mailto:mgreen@ci.banning.ca.us>]
Sent: Monday, April 07, 2014 5:09 PM
To: BNSD, Post Retirement Administration
Cc: joverholt@ci.banning.ca.us; rchapparosa@ci.banning.ca.us
Subject: RE: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Ms. Burke,

Mr. Croy is being hired through MuniTemps. They are aware of the CalPERS requirements and will be able to provide you with this information.

I will forward your request to MuniTemps.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Monday, April 07, 2014 4:05 PM
To: Michelle Green
Cc: BNSD, Post Retirement Administration
Subject: Post Retirement Employment of Retired Annuitants - Homer Croy CID 1576884835

Dear Ms. Green,

We saw an article dated April 7, 2014 in the Riverside Press-Enterprise regarding the City of Banning naming the retiree Homer Croy as the Interim City Manager for 4 to 6 months.

It is very important for the City to make sure the retired annuitant employment is kept in compliance with the retirement law. The article mentions he will be paid \$96.14 an hour with an estimated monthly cost of \$16,700. Please provide a copy of his post retirement employment agreement, a copy of the publicly available salary schedule and provide a status of the recruitment. His appointment as the interim City Manager would be permitted under Government Code section 21221(h). Please review the requirements for that type of appointment in the Circular Letter mentioned below.

Here is a link to the Circular Letter 200-002-14 issued 1/14/2014 on the subject: Post Service Retirement Employment Requirements.

<http://www.calpers.ca.gov/eip-docs/employer/cir-ltrs/2014/200-002-14.pdf>

If you have any questions, please contact us at BNSD_Post_Retirement_Administration@calpers.ca.gov.

Liz Burke | Retirement Program Specialist II
Post Retirement Administration | Benefit Services Division
916-795-3120 fax 916-795-0701

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Thursday, July 30, 2015 1:41 PM
To: Michelle Green
Subject: RE: CalPERS Question (Interim City Manager)

Hi Michelle,

Thank you and I wanted to give you a summary of the information I have gathered so far. I am attaching Dean Martin's email to me with his contract with MuniTemps and including the information from you and some from the City's website.

- Mr. Martin began serving as the interim Administrative Services Director 1/5/2015. Hourly Salary = \$60.00 per hour. The recruitment on the website for this position lists the salary range from \$126,545 - \$171,200. Our method to convert to hourly = $\$126,545 \div 12 = \$10,545.42$ monthly $\div 173.333$ (hourly conversion factor in the 21221(h) statute) = \$60.84. So from 1/1/2015 thru 5/12/2015 that's his minimum.
- Mr. Martin began serving as the interim City Manager (CM) 5/13/2015. Hourly Salary = \$60.00 per hour. The salary schedule you provided, lists the salary range from \$170,189 \$230,244. Convert the annual to hourly as above = \$81.82 and that's his minimum.
- The end date to his "once" appointment as interim CM would be 11/12/2015 as his last day, for the contract period of 6 months.

Question: After reading your response to John Herrera of MuniTemps, (btw you lay it on the line very clearly), did you get any reply back from John Herrera?

Also, I will forward the bulleted information to Dean and I will be out of the office from Friday 7/31 thru Weds 8/5.

Thanks,

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division
916-795-2381

From: mgreen@ci.banning.ca.us [<mailto:mgreen@ci.banning.ca.us>]
Sent: Wednesday, July 29, 2015 5:35 PM
To: BNSD, Post Retirement Administration
Subject: RE: CalPERS Question (Interim City Manager)

Hi Susan,

Here is what I have:

I have attached the recruitment flyer, the class and comp plan, the pay scale and the amendment to the Munitemps contract that shows when Dean became City Manager. Our records show that Mr. Martin worked 949 hours between 7/1/14 and 6/30/16. He started as the City Manager on 5/13/15. Before that he was the Administrative Services Director.

I will be out of the office for a few days, but I will have access to my emails, so if you need anything or have any questions, please let me know.

Thanks.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Wednesday, July 22, 2015 9:33 AM
To: Michelle Green
Subject: FW: CalPERS Question (Interim City Manager)
Importance: High

Hi Michelle,

I just sent you an email, but didn't see this one. I will have to ask my manager how to answer your question. Keep in mind that besides the pay rate, we still haven't confirmed if Mr. Martin's appointment meets all of the interim requirements - including a begin and end date, to his agreement, etc ...

Susan

From: mgreen@ci.banning.ca.us [<mailto:mgreen@ci.banning.ca.us>]
Sent: Tuesday, July 21, 2015 1:04 PM
To: BNSD, Post Retirement Administration
Subject: FW: CalPERS Question (Interim City Manager)
Importance: High

Hi again Susan,

I am going to have to present this entire situation to our Council. Can you tell me - if they did not want to bring Mr. Martin's salary up to the correct salary range for the position he is working, what would be the implications (including financial implications) to the City, and Mr. Martin, for not being in compliance? Would you (PERS) pursue penalties, etc.? I know I am going to have to present both sides in order for them to make a decision.

Thanks for all of your assistance.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: Michelle Green
Sent: Tuesday, July 21, 2015 8:52 AM
To: BNSD, Post Retirement Administration (BNSD_Post_Retirement_Administration@CalPERS.CA.GOV)
Subject: FW: CalPERS Question (Interim City Manager)
Importance: High

Hi Susan,

Per our conversation, below is a copy of the email I sent to John Herrera at MuniTemps. It may help your manager in drafting their letter. If you need, at a later date, I have the emails John sent with these claims in them.

Also, to put my question in writing..... Since we now know that Dean's salary is not at the minimum for the City Manager range, I would like to know if the City can retroactively adjust his salary so we are in compliance with the guidelines (due to the fact that we were misled by MuniTemps).

Thank you for your assistance.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: Michelle Green
Sent: Thursday, July 02, 2015 4:38 PM
To: 'John Herrera'
Cc: Craig Levorsen; Tony Herrera; Monica Rueda
Subject: RE: CalPERS Question (Interim City Manager)
Importance: High

Hi John,

It was a pleasure to hear from you.

I have a couple of clarifications to some of the information you stated below and then I have some additional data for you regarding CalPERS reporting.

In Rita's emails (which I now have a copy of) **YOU** state that **YOU** checked with PERS regarding what needed to be reported. **YOU** told Rita that "CalPERS is saying that they will accept the "bill rate" as the amount you will report to CalPERS for our employee Homer Croy." **YOU** also said "our legal counsel responded that you can simply report that the hourly pay rate you are paying for Homer Croy is same as you would pay your prior City Manager." **YOU** also stated that **YOU** received a voicemail from Michelle Balzouman in the Compensation and Employer Review section of CalPERS and according to her CalPERS' only question would be whether the reported amount complied with section 570.5 if the regulations.

None of the communication (and there has been a lot) I have had with PERS agrees with the representations you made in your emails.

According to Rita, the reason they negotiated to lower the \$125 per hour was because Council refused to pay that amount. And according to your emails, it does appear that **YOU** are the one doing all of the CalPERS research and telling Rita we will be in compliance. **YOU** also represented that your agency would be reporting Homer Croy's time to CalPERS. If this had actually been the case you may have been able to keep the employee's rate confidential.

Before Homer Croy even started to work for us, I received a phone call and an email requesting his contract, job descriptions, proof of active recruitment, etc. It is obvious to me that CalPERS would not and will not be happy with us just "saying that the hourly pay rate you are paying for Homer Croy is same as you would pay your prior City Manager". They obviously want proof and want to do the math themselves.

Now since you did not report for Homer Croy, as was represented, we are being required to do so. CalPERS is also aware of the employment of Dean Martin and is requiring the same information and reporting for him.

I take exception to your claim that releasing the employee's actual rate somehow impacts the competitive nature of your business. All of the other temp agencies we use disclose the employee's actual rate, as well as our "bill rate". Normally we require this information to compare costs before using a temp agency. How are you any different? I can guarantee that in the future we will do our due diligence and require that we have this information before hiring anyone through a temp agency.

I have attached a document that shows how the retired annuitant is to be reported in the CalPERS system. On page "29", the yellow highlighted fields are required to make an entry into the system. You will note that hourly rate is one of those fields. Even if there was some way you could give the rate directly to PERS, in order to report we would have to have the rate to key in or the page errors out. If there was some magic way that PERS would populate the field for us (which I don't think there is, as a new file is created every time we report), I would see the rate when I went in to report hours and it would not remain *confidential*.

Although I do enjoy expounding on the requirements of reporting for retired annuitants, I would much rather put this issue to bed. It might be time to realize that the landscape of hiring out retired public annuitants is changing and this may be the new reality.

At this point, the City is at risk of being penalized and/or fined and employees are at risk of jeopardizing their retirements. If maintaining "your competitive edge" is more important to you than remedying this situation, please confirm via email so I can take appropriate steps to deal with this matter.

Thank you,

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: John Herrera [<mailto:jherrera@munitemps.com>]
Sent: Thursday, July 02, 2015 12:52 PM
To: Michelle Green
Cc: Craig Levorsen; Tony Herrera; Monica Rueda
Subject: CalPERS Question (Interim City Manager)
Importance: High

Hello Michelle,

If an annuitant wants to discuss their earnings with CalPERS, they can do that under confidentiality *directly with* CalPERS, however, we require CalPERS to keep this information confidential as it will impact the competitive nature of our business.

MuniTemps cannot disclose pay rates of our employees, including CalPERS annuitants. However, MuniTemps will disclose information directly to CalPERS, with the written consent of our employees, again, if CalPERS agrees to keep our information confidential (to keep our business competitive).

Please keep in mind that the \$96.15 hourly bill rate MuniTemps invoices to the City of Banning for Interim City Manager services is a rate that was established by Rita Chapparosa because Rita told MuniTemps "the City cannot pay MuniTemps any more or any less than the hourly pay rate paid by the City to the former City Manager to comply with CalPERS law".

MuniTemps was going to pay our Interim City Manager closer to the \$96.15 per hour, thus I quoted \$125 per hour "bill rate" to Rita in H.R., but again, Rita told me that the City could only "pay" MuniTemps \$96.15 per

hour to comply with CalPERS law. MuniTemps discussed this constraint with our candidates who were CalPERS annuitants, and being retirees, they were understanding of the City's position and accepted a rate lower than the \$96.15 per hour the City was willing to pay MuniTemps.

Obviously, MuniTemps has to pay our employees less than \$96.15 per hour just to cover taxes and insurance, not to mention keep the lights on at our office. But again, MuniTemps and our CalPERS retirees worked together to meet the City's constraint, limiting the bill rate to only \$96.15 per hour to comply with CalPERS law (as interpreted by the City).

MuniTemps and our employees are focused on budget-friendly staffing solutions to help our Cities in transition, and we will do whatever is required to help our Cities comply with policies and procedures.

Let me know what else we do to help the City with this CalPERS question.

Thank you.

Thanks,

John Herrera, C.P.A., MPA

President/CEO

MuniTemps / Municipal Staffing Solutions

"Serving all local government organizations"

www.munitemps.com

Nationwide Corporate Headquarters:

14241 E. Firestone Blvd, Suite 400

La Mirada, CA 90638

1-866-406-6864 Office

1-866-498-6678 Fax

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From: denmart
Sent: Tuesday, July 28, 2015 10:34 PM
To: BNSD, Post Retirement Administration
Subject: Re: Retired Annuitant Dean Martin City of Banning Issues
Attachments: Munitemps Consulting Agreement.pdf

Attn: Susan Tasa

Here is a copy of my contract with MuniTemps. Hours worked through June 30 was 949.5. The remaining information you need will come from the City.

Sent from Windows Mail

From: [BNSD Post Retirement Administration@CalPERS.CA.GOV](mailto:BNSD.Post.Retirement.Administration@CalPERS.CA.GOV)
Sent: Thursday, July 23, 2015 12:37 PM
To: denmart
Cc: mgreen@ci.banning.ca.us

Hello Dean Martin,

I responded to Michelle Green's recent emails and re-stated that besides the pay rate, I need additional information to determine if your employment as the interim City manager is meeting the retired annuitant requirements. I let Michelle know I am forwarding this request to you, in case you can provide the documentation (below), if the City cannot.

I still need the following in order to validate that you are only serving "once" as an interim, and your appointment meets the compliance requirements:

1. Copy of the contract or employment agreement(s) with MuniTemps, or hiring paperwork with the City that state the start and end dates of the appointment(s).
2. Copy of the salary schedule for the positions.
3. Recruitment information
4. Number of hours worked from fiscal year July 1, 2014 -- June 30, 2015.

I discussed with my manager, and we agree that the City can retro-actively adjust your pay rate to meet the minimum on the pay schedule for the City Manager position. However, I don't have an answer yet to Michelle's question about the consequences if the City will not agree to retro-actively adjust your pay rate to the minimum for the position.

Thanks,

Susan Tasa
Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division
916-795-2381

From: denmart1 [mailto:denmart1@cityofbanning.com]
Sent: Tuesday, July 21, 2015 7:45 AM
To: BNSD, Post Retirement Administration
Subject: Fwd: Retired Annuitant Dean Martin City of Banning Issues

Attn: Susan Tasa

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message -----

From: denmart1 <denmart1@cityofbanning.com>
Date: 07/20/2015 6:33 PM (GMT-08:00)
To: BNSDPostRetirementAdministration@CalPers.ca.gov
Cc: jherrera@munitemps.com
Subject: Retired Annuitant Dean Martin City of Banning Issues

ATTN: Susan Tasa, Retired Program Specialist II

Dear Ms Tasa, I am aware of the ongoing controversy between Banning and Munitemps regarding my rate of pay. It's put me in an awkward position since I signed a contract with MT that prohibits me from revealing my pay. However, MT will allow me to disclose my hourly rate directly to CALPERS so as not to jeopardize my status as a retiree. Therefore, my hourly rate of pay is \$60. They are asking that CALPERS maintain it confidential. (I have cc'd John Herrera of MT on this email).

We have been made aware by the City that my rate of pay must be no lower than the minimum published rate for the applicable position. The lowest published rate for the City Manager position at Banning is approximately \$86. We will be working with the City to obtain Council approval for a rate increase that will allow MT to pay me the approximate \$86. Before we can move forward we are awaiting CALPERS response to the City as to whether the increase must be retroactive or can be applied prospectively.

Hopefully, this will resolve the issue.

Best regards,

Dean Martin

Sent from my Verizon Wireless 4G LTE smartphone

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From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Friday, August 14, 2015 12:33 PM
To: Michelle Green
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hi Michelle,

Our laws re: administering the retired annuitant requirements, authorize CalPERS to reinstate the retiree. Reinstatement would have financial implications to the City. However, since we are the program area making the determination, and we are saying - if the City will not comply with paying Dean Martin the minimum pay rate - then we will not reinstate him for that reason alone. So the short answer is – no, not from us.

Susan Tasa
Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division
916-795-2381

From: mgreen@ci.banning.ca.us [<mailto:mgreen@ci.banning.ca.us>]
Sent: Thursday, August 13, 2015 4:56 PM
To: BNSD, Post Retirement Administration
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hi Susan,

Thank you so much for all of your time and effort regarding this matter. I have one more question for clarification, because I know it will come up....

If the City does not agree to pay Mr. Martin and comply with the minimum pay rate, will there be any adverse impact to the City?

Thank you.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Thursday, August 13, 2015 3:59 PM
To: denmart1; Michelle Green
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hi All,

Here is what I have concluded based on the information you have both provided, and for the purpose of clarifying the compliance issues for Dean Martin and the City. FYI, I am basing my conclusion on the "Exhibit A" between the City and MuniTemps re: the City Manager position and the documents (attached) Michelle provided of the salary schedule and recruitment information. This is because I did not receive an actual contract for either position.

1. The interim Admin Services Director (ASD) position ended when Dean Martin began the City Manager (CM) position on 5/13/2015, even though Mr. Martin is doing the ASD duties in addition to the CM's. For post-retirement employment, the additional duties of ASD were rolled into the CM's duties.
2. The ASD position's one time appointment ended 5/12/2105. The interim CM will end, as I stated below 11/12/2015. There is no provision in retirement law for an extension of a one time appointment.
3. The difference between the minimum hourly for the ASD position and the hourly Dean Martin was paid, \$60.84 compared to \$60.00 is negligible. However, the City should comply with public pay schedule and pay Dean Martin the minimum **base salary** for the CM position which is \$81.82. (see attached). Just to reiterate - retired annuitants may not receive any additional benefit or compensation, other than the hourly equivalent to the base salary, as listed on the pay schedule for the position.
4. If the City agrees to comply with the minimum pay rate, the hourly rate should be paid and reported retroactively back to the interim CM appointment date.
5. If the City does not agree, then we would not administratively reinstate Dean Martin, based on this finding only, that his pay rate did not meet the minimum for the position.

I hope helps to clarify and if you have any questions, let me know.

Sincerely,

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division
916-795-2381

From: denmar [mailto:denmar]
Sent: Thursday, July 30, 2015 4:44 PM
To: BNSD, Post Retirement Administration
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Based on PERS calculation method, the hourly rate slightly differs from the City's published rate of 85.96.

As far as end date for Interim CM, the November date appears reasonable based on the Munitemps contract with the City. How are you viewing the Administrative Svcs Dir since I am still also serving in that capacity? What would you consider to be end date?

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message -----

From: "BNSD, Post Retirement Administration"
<BNSD_Post_Retirement_Administration@CalPERS.CA.GOV>
Date: 07/30/2015 2:12 PM (GMT-08:00)
To: denmar [mailto:denmar]
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hello,

Thank you and, in order to get us all on the same page, I am summarizing the information I have received from both you and Michelle Banning with the City.

- You began serving as the interim Administrative Services Director 1/5/2015. Hourly Salary = \$60.00 per hour. The recruitment on the website for this position lists the salary range from \$126,545 - \$171,200. Our method to convert to hourly = $\$126,545 \div 12 = \$10,545.42$ monthly $\div 173.333$ (hourly conversion factor in the 21221(h) statute) = \$60.84. So from 1/1/2015 thru 5/12/2015 that's the minimum.
- You began serving as the interim City Manager (CM) 5/13/2015. Hourly Salary = \$60.00 per hour. The salary schedule the City provided, lists the salary range from \$170,189 \$230,244. Convert the annual to hourly as above = \$81.82 and that's the minimum.
- The end date to the interim CM appointment would be 11/12/2015 as your last day, for the contract period of 6 months.

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division

916-795-2381

From: denmart . [mailto:denmart@cityofbanning.com]
Sent: Wednesday, July 29, 2015 4:52 PM
To: Tasa, Susan
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

There was no other contract. The start date for the Interim City Manager duties began May 13, 2015. The only contract that was changed was between MuniTemps and the City. By the way, I have actually continued handling duties as the Interim Administrative Services Director.

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message -----

From: "Tasa, Susan" <Susan.Tasa@calpers.ca.gov>

Date: 07/29/2015 4:17 PM (GMT-08:00)

To: [denmart](#)

Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hello Mr. Martin,

I just reviewed the contract information and noticed that the contract you sent is for the Interim Administrative Services Director. Once you ended that position and accepted the Interim City Manager position, we consider these as two separate "one time" appointments. FYI, you will not be able to return to the Admin Services Director position again. Additionally, I need the contract you have for the interim City Manager position and when did you begin in this position, and when does the contract end?

Thanks again,

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division

916-795-2381

From: BNSD, Post Retirement Administration

Sent: Wednesday, July 29, 2015 2:53 PM

To: 'denmart'

Subject: RE: Retired Annuitant Dean Martin City of Banning Issues

Hello Dean Martin,

I received the contract information. Thank you,

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division

916-795-2381

From: denmart1 [mailto:denmart1]
Sent: Tuesday, July 28, 2015 10:34 PM
To: BNSD, Post Retirement Administration
Subject: Re: Retired Annuitant Dean Martin City of Banning Issues

Attn: Susan Tasa

Here is a copy of my contract with MuniTemps. Hours worked through June 30 was 949.5. The remaining information you need will come from the City.

Sent from Windows Mail

From: [BNSD Post Retirement Administration@CalPERS.CA.GOV](mailto:BNSD.Post.Retirement.Administration@CalPERS.CA.GOV)
Sent: Thursday, July 23, 2015 12:37 PM
To: denmart1
Cc: mgreen@ci.banning.ca.us

Hello Dean Martin,

I responded to Michelle Green's recent emails and re-stated that besides the pay rate, I need additional information to determine if your employment as the interim City manager is meeting the retired annuitant requirements. I let Michelle know I am forwarding this request to you, in case you can provide the documentation (below), if the City cannot.

I still need the following in order to validate that you are only serving "once" as an interim, and your appointment meets the compliance requirements:

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Thanks,

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division

916-795-2381

From: denmart [mailto:denmart]
Sent: Tuesday, July 21, 2015 7:45 AM
To: BNSD, Post Retirement Administration
Subject: Fwd: Retired Annuitant Dean Martin City of Banning Issues

Attn: Susan Tasa

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message -----

From: denmart <denmart>
Date: 07/20/2015 6:33 PM (GMT-08:00)
To: BNSDPostRetirementAdministration@CalPers.ca.gov
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ATTN: Susan Tasa, Retired Program Specialist II

Dear Ms Tasa, I am aware of the ongoing controversy between Banning and Munitemps regarding my rate of pay. It's put me in an awkward position since I signed a contract with MT that prohibits me from revealing my pay. However, MT will allow me to disclose my hourly rate directly to CALPERS so as not to jeopardize my status as a retiree. Therefore, my hourly rate of pay is \$60. They are asking that CALPERS maintain it confidential. (I have cc'd John Herrera of MT on this email).

We have been made aware by the City that my rate of pay must be no lower than the minimum published rate for the applicable position. The lowest published rate for the City Manager position at Banning is approximately \$86. We will be working with the City to obtain Council approval for a rate increase that will allow MT to pay me the approximate \$86. Before we can move forward we are awaiting CALPERS response to the City as to whether the increase must be retroactive or can be applied prospectively.

Hopefully, this will resolve the issue.

Best regards,

Dean Martin

Sent from my Verizon Wireless 4G LTE smartphone

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From: Michelle Green
Sent: Wednesday, August 26, 2015 2:04 PM
To: Rita Chapparosa
Cc: Dean Martin
Subject: FW: Retired Annuitant Dean Martin City of Banning - another request

Rita,

Here is the last email. We will NOT be pursuing a pay increase for Dean.

There are no adverse consequences to the City for not doing so.

Michelle M. Green, M.B.A.
Deputy Finance Director
City of Banning
(951) 922-3118

From: BNSD, Post Retirement Administration [mailto:BNSD_Post_Retirement_Administration@CalPERS.CA.GOV]
Sent: Thursday, August 13, 2015 3:59 PM
To: denmart1; Michelle Green
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hi All,

Here is what I have concluded based on the information you have both provided, and for the purpose of clarifying the compliance issues for Dean Martin and the City. FYI, I am basing my conclusion on the "Exhibit A" between the City and MuniTemps re: the City Manager position and the documents (attached) Michelle provided of the salary schedule and recruitment information. This is because I did not receive an actual contract for either position.

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3. The difference between the minimum hourly for the ASD position and the hourly Dean Martin was paid, \$60.84 compared to \$60.00 is negligible. However, the City should comply with public pay schedule and pay Dean Martin the minimum **base salary** for the CM position which is \$81.82. (see attached). Just to reiterate - retired annuitants may not receive any additional benefit or compensation, other than the hourly equivalent to the base salary, as listed on the pay schedule for the position.
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5. If the City does not agree, then we would not administratively reinstate Dean Martin, based on this finding only, that his pay rate did not meet the minimum for the position.

I hope helps to clarify and if you have any questions, let me know.

Sincerely,

Susan Tasa

From: denmart1 [mailto:denmart1@cityofbanning.com]
Sent: Thursday, July 30, 2015 4:44 PM
To: BNSD, Post Retirement Administration
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Based on PERS calculation method, the hourly rate slightly differs from the City's published rate of 85.96.

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<BNSD_Post_Retirement_Administration@CalPERS.CA.GOV>
Date: 07/30/2015 2:12 PM (GMT-08:00)
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Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hello,

Thank you and, in order to get us all on the same page, I am summarizing the information I have received from both you and Michelle Banning with the City.

- You began serving as the interim Administrative Services Director 1/5/2015. Hourly Salary = \$60.00 per hour. The recruitment on the website for this position lists the salary range from \$126,545 - \$171,200. Our method to convert to hourly = $\$126,545 \div 12 = \$10,545.42$ monthly $\div 173.333$ (hourly conversion factor in the 21221(h) statute) = \$60.84. So from 1/1/2015 thru 5/12/2015 that's the minimum.
- You began serving as the interim City Manager (CM) 5/13/2015. Hourly Salary = \$60.00 per hour. The salary schedule the City provided, lists the salary range from \$170,189 - \$230,244. Convert the annual to hourly as above = \$81.82 and that's the minimum.

- The end date to the interim CM appointment would be 11/12/2015 as your last day, for the contract period of 6 months.

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division

916-795-2381

From: denmart [<mailto:denmart>]
Sent: Wednesday, July 29, 2015 4:52 PM
To: Tasa, Susan
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

There was no other contract. The start date for the Interim City Manager duties began May 13, 2015. The only contract that was changed was between MuniTemps and the City. By the way, I have actually continued handling duties as the Interim Administrative Services Director.

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message -----

From: "Tasa, Susan" <Susan.Tasa@calpers.ca.gov>
Date: 07/29/2015 4:17 PM (GMT-08:00)
To: denmart
Subject: RE: Retired Annuitant Dean Martin City of Banning - another request

Hello Mr. Martin,

I just reviewed the contract information and noticed that the contract you sent is for the Interim Administrative Services Director. Once you ended that position and accepted the Interim City Manager position, we consider these as two separate "one time" appointments. FYI, you will not be able to return to the Admin Services Director position

again. Additionally, I need the contract you have for the interim City Manager position and when did you begin in this position, and when does the contract end?

Thanks again,

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division

916-795-2381

From: BNSD, Post Retirement Administration
Sent: Wednesday, July 29, 2015 2:53 PM
To: 'denmart'
Subject: RE: Retired Annuitant Dean Martin City of Banning Issues

Hello Dean Martin,

I received the contract information. Thank you,

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division

916-795-2381

From: denmart'
Sent: Tuesday, July 28, 2015 10:34 PM
To: BNSD, Post Retirement Administration
Subject: Re: Retired Annuitant Dean Martin City of Banning Issues

Attn: Susan Tasa

Here is a copy of my contract with MuniTemps. Hours worked through June 30 was 949.5. The remaining information you need will come from the City.

Sent from Windows Mail

From: BNSD Post Retirement Administration@CalPERS.CA.GOV
Sent: Thursday, July 23, 2015 12:37 PM
To: denmar'
Cc: mgreen@ci.banning.ca.us

Hello Dean Martin,

I responded to Michelle Green's recent emails and re-stated that besides the pay rate, I need additional information to determine if your employment as the interim City manager is meeting the retired annuitant requirements. I let Michelle know I am forwarding this request to you, in case you can provide the documentation (below), if the City cannot.

I still need the following in order to validate that you are only serving "once" as an interim, and your appointment meets the compliance requirements:

1. Copy of the contract or employment agreement(s) with MuniTemps, or hiring paperwork with the City that state the start and end dates of the appointment(s).
2. Copy of the salary schedule for the positions.
3. Recruitment information
4. Number of hours worked from fiscal year July 1, 2014 -- June 30, 2015.

I discussed with my manager, and we agree that the City can retro-actively adjust your pay rate to meet the minimum on the pay schedule for the City Manager position. However, I don't have an answer yet to Michelle's question about the consequences if the City will not agree to retro-actively adjust your pay rate to the minimum for the position.

Thanks,

Susan Tasa

Retirement Program Specialist II | Post Retirement Administration | Benefit Services Division

916-795-2381

From: denmart1 [mailto:denmart1]
Sent: Tuesday, July 21, 2015 7:45 AM
To: BNSD, Post Retirement Administration
Subject: Fwd: Retired Annuitant Dean Martin City of Banning Issues

Attn: Susan Tasa

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message -----

From: denmart1 <denmart1>
Date: 07/20/2015 6:33 PM (GMT-08:00)
To: BNSDPostRetirementAdministration@CalPers.ca.gov
Cc: jherrera@munitemps.com
Subject: Retired Annuitant Dean Martin City of Banning Issues

ATTN: Susan Tasa, Retired Program Specialist II

Dear Ms Tasa, I am aware of the ongoing controversy between Banning and Munitemps regarding my rate of pay. It's put me in an awkward position since I signed a contract with MT that prohibits me from revealing my pay. However, MT will allow me to disclose my hourly rate directly to CALPERS so as not to jeopardize my

status as a retiree. Therefore, my hourly rate of pay is \$60. They are asking that CALPERS maintain it confidential. (I have cc'd John Herrera of MT on this email).

We have been made aware by the City that my rate of pay must be no lower than the minimum published rate for the applicable position. The lowest published rate for the City Manager position at Banning is approximately \$86. We will be working with the City to obtain Council approval for a rate increase that will allow MT to pay me the approximate \$86. Before we can move forward we are awaiting CALPERS response to the City as to whether the increase must be retroactive or can be applied prospectively.

Hopefully, this will resolve the issue.

Best regards,

Dean Martin

Sent from my Verizon Wireless 4G LTE smartphone

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From: Rita Chapparosa
Sent: Tuesday, October 13, 2015 12:09 PM
To: 'John Herrera'
Cc: Dean Martin; 'Craig Levorsen'; 'Monica Rueda'
Subject: RE: MuniTemps_Amendment #1_to_Consultant_Agreement.docx
Importance: High

John,

Have you made a decision on this matter?

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: Rita Chapparosa
Sent: Tuesday, October 06, 2015 3:04 PM
To: 'John Herrera'
Cc: Dean Martin; Craig Levorsen; Monica Rueda
Subject: RE: MuniTemps_Amendment #1_to_Consultant_Agreement.docx

John,

The increase amount will need to be paid directly to Dean retroactive to May 12, 2015 when he was appointment to City Manager.

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: John Herrera [<mailto:jherrera@munitemps.com>]
Sent: Tuesday, October 06, 2015 12:05 PM
To: Rita Chapparosa
Cc: Dean Martin; Craig Levorsen; Monica Rueda
Subject: RE: MuniTemps_Amendment #1_to_Consultant_Agreement.docx
Importance: High

Hi Rita,

There is no need to amend the Municipal Staffing Agreement (MSA). All you have to do is approve the updated Exhibit "A" approving a 22.7% increase in the bill rate from \$96.15 to \$117.97. The MSA is still valid through 05/20/2016, although you can terminate earlier.

The only question I have for you is regarding the \$21,000 "not to exceed" amount, which only pays for 178 hours at the \$117.97 hourly "bill rate". Are you requesting that Dean end his assignment within 178 hours from 10/14/15? I need to know so I can notify our associate Dean Martin.

Please sign and return the new Exhibit "A" so I can pass on the 22.7% hourly increase to Dean Martin.

Thank you.

John Herrera, C.P.A., MPA
President/CEO & Municipal Finance Officer
MuniTemps / Municipal Staffing Solutions
"Serving all local government organizations"
www.munitemps.com

Nationwide Corporate Headquarters:

14241 E. Firestone Blvd, Suite 400
La Mirada, CA 90638
1-866-406-6864 Office
1-866-498-6678 Fax

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From: rchapparosa@ci.banning.ca.us [mailto:rchapparosa@ci.banning.ca.us]
Sent: Tuesday, October 06, 2015 11:18 AM
To: John Herrera
Cc: dmartin@ci.banning.ca.us
Subject: MuniTemps_Amendment #1_to_Consultant_Agreement.docx

John,

Attached is an amended agreement with MuniTemps and the City of Banning for your review and consideration for Dean Martin due to the CALPERS retirement annuitant issue.

Please contact me to discuss along with Dean.

Thank you,

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: Rita Chapparosa
Sent: Friday, October 09, 2015 12:01 PM
To: 'Craig Levorsen'
Subject: RE: Clarification on proposed pay increase for Dean Martin

Thank you

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: Craig Levorsen [<mailto:clevorsen@munitemps.com>]
Sent: Friday, October 09, 2015 12:00 PM
To: Rita Chapparosa
Subject: RE: Clarification on proposed pay increase for Dean Martin

Rita,

Yes, sorry about that. I am hoping John can get an answer from legal today.

Thanks,

Craig

From: rchapparosa@ci.banning.ca.us [<mailto:rchapparosa@ci.banning.ca.us>]
Sent: Friday, October 09, 2015 11:59 AM
To: Craig Levorsen
Subject: RE: Clarification on proposed pay increase for Dean Martin

Craig,

Did you mean to send this to John?

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: Craig Levorsen [<mailto:clevorsen@munitemps.com>]
Sent: Friday, October 09, 2015 11:58 AM
To: Rita Chapparosa
Subject: RE: Clarification on proposed pay increase for Dean Martin

John,

Just a reminder that we need to make a response for Rita.

Thanks,

Craig

From: rchapparosa@ci.banning.ca.us [mailto:rchapparosa@ci.banning.ca.us]
Sent: Thursday, October 08, 2015 11:59 AM
To: Craig Levorsen
Subject: RE: Clarification on proposed pay increase for Dean Martin

Craig,

Do you have a response on my request?

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: Craig Levorsen [mailto:clevorsen@munitemps.com]
Sent: Wednesday, October 07, 2015 11:29 AM
To: Rita Chapparosa
Subject: RE: Clarification on proposed pay increase for Dean Martin

Hello Rita,

Thank you, I will look forward to speaking with you.

Craig

From: rchapparosa@ci.banning.ca.us [mailto:rchapparosa@ci.banning.ca.us]
Sent: Wednesday, October 07, 2015 7:49 AM
To: Craig Levorsen
Cc: John Herrera
Subject: RE: Clarification on proposed pay increase for Dean Martin

Craig,

I will be attending a training this morning and I will call you during a break.

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us

Phone: 951-922-3147 Fax: 951-922-3157

From: Craig Levorsen [<mailto:clevorsen@munitemps.com>]
Sent: Tuesday, October 06, 2015 4:40 PM
To: Rita Chapparosa
Cc: John Herrera
Subject: Clarification on proposed pay increase for Dean Martin

Hello Rita,

I called just a moment ago and left a message. This is a follow up simply because some people prefer email.

When you have a couple minutes, will you please give me a call? We would like clarification on exactly what is being proposed to address your situation.

Look to talk soon,

Craig Levorsen
Staffing Manager
MuniTemp Staffing
A division of Government Staffing Services, Inc.
"Serving municipalities throughout America"
www.munitemps.com
14241 E. Firestone Blvd, Suite 400
La Mirada, CA 90638
(866) 406-6864 Office
(866) 498-6678 Fax

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From: Sonja De La Fuente
Sent: Wednesday, October 07, 2015 3:10 PM
To: Rita Chapparosa; Michelle Green
Cc: Marie Calderon
Subject: RE: GSS Amendment

I made some minor adjustments to the format of the staff report. Michelle & Rita, we just need the total savings to complete the report.

Thank you,

Sonja De La Fuente
Executive Assistant/Deputy City Clerk
Office of the City Manager
Office of the City Clerk
City of Banning
99 E. Ramsey Street
P.O. Box 998
Banning, CA 92220-0998
Office: (951) 922-4860
Fax: (951) 846-8611
E-mail: sdelafuente@ci.banning.ca.us
www.ci.banning.ca.us



From: Dean Martin
Sent: Wednesday, October 07, 2015 2:05 PM
To: Sonja De La Fuente; Rita Chapparosa; Michelle Green
Subject: GSS Amendment

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CITY COUNCIL AGENDA

DATE: October 13, 2015

TO: CITY COUNCIL

FROM: Rita Chapparosa, Deputy Human Resources Director
Michelle Green, Deputy Finance Director

SUBJECT: Amendment to Government Staffing Services, Inc. Contract

RECOMMENDATION: Authorize the Mayor to execute the attached amendment increasing the Government Staffing Services, Inc. contract by \$20,000 to cover increased compensation for the Interim City Manager as required by Cal PERS guidelines for retired annuitants.

JUSTIFICATION: CalPERS retired Annuitant guidelines regulates the basis under which any public agency which is a member of CalPERS can make use of a retired employee on an interim basis. In addition to limiting the number of hours and requiring an end date for an interim assignment, the agency is required to pay the minimum published hourly rate for the applicable position.

BACKGROUND: Government Staffing Services, Inc. has provided staffing on an interim basis for the City since. Effective January 5, 2015, Dean Martin was provided by Government Staffing Services, Inc., after interview and acceptance by the City's then Administrative Services Director (whose departure was imminent), to fill the Administrative Services Director position on an interim basis while a City recruitment was in process. On May 12, 2015, Mr. Martin was appointed by the City Council to serve as the Interim City Manager while continuing to handle the duties of the Administrative Services Director. At that time, an adjustment should have been made in Mr. Martin's hourly rate to reflect the minimum published rate for the position of City Manager. However, because the CalPERS requirement with respect to pay was not known, no adjustment was made. In order to comply with the CalPERS requirement, staff is now requesting an adjustment to the contract with Government Staffing Services, Inc. by \$20,000 to adjust Mr. Martin's pay to the minimum required by CalPERS. The adjustment amounts to an increase of \$21.82 to Mr. Martin's hourly rate, retroactive to May 13, 2015.

FISCAL DATA: The \$20,000 will come from the total personnel savings of \$ from not having permanent staff in the positions of Administrative Services Director and Interim City Manager.

RECOMMENDED BY:

Rita Chapparosa
Deputy Human Resources

Michelle Green
Deputy Finance Director

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From: Dean Martin
Sent: Wednesday, October 07, 2015 2:05 PM
To: Sonja De La Fuente; Rita Chapparosa; Michelle Green
Subject: GSS Amendment

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Michelle Green, Deputy Finance Director

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FISCAL DATA: The \$20,000 will come from the total personnel savings of \$ from not having permanent staff in the positions of Administrative Services Director and Interim City Manager.

RECOMMENDED BY:

Rita Chapparosa
Deputy Human Resources

Michelle Green
Deputy Finance Director

From: Rita Chapparosa
Sent: Tuesday, October 06, 2015 3:04 PM
To: 'John Herrera'
Cc: Dean Martin; Craig Levorsen; Monica Rueda
Subject: RE: MuniTemps_Amendment #1_to_Consultant_Agreement.docx

John,

The increase amount will need to be paid directly to Dean retroactive to May 12, 2015 when he was appointment to City Manager.

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: John Herrera [<mailto:jherrera@munitemps.com>]
Sent: Tuesday, October 06, 2015 12:05 PM
To: Rita Chapparosa
Cc: Dean Martin; Craig Levorsen; Monica Rueda
Subject: RE: MuniTemps_Amendment #1_to_Consultant_Agreement.docx
Importance: High

Hi Rita,

There is no need to amend the Municipal Staffing Agreement (MSA). All you have to do is approve the updated Exhibit "A" approving a 22.7% increase in the bill rate from \$96.15 to \$117.97. The MSA is still valid through 05/20/2016, although you can terminate earlier.

The only question I have for you is regarding the \$21,000 "not to exceed" amount, which only pays for 178 hours at the \$117.97 hourly "bill rate". Are you requesting that Dean end his assignment within 178 hours from 10/14/15? I need to know so I can notify our associate Dean Martin.

Please sign and return the new Exhibit "A" so I can pass on the 22.7% hourly increase to Dean Martin.

Thank you.

John Herrera, C.P.A., MPA
President/CEO & Municipal Finance Officer
MuniTemps / Municipal Staffing Solutions
"Serving all local government organizations"
www.munitemps.com

Nationwide Corporate Headquarters:
14241 E. Firestone Blvd, Suite 400
La Mirada, CA 90638

1-866-406-6864 Office
1-866-498-6678 Fax

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From: rchapparosa@ci.banning.ca.us [mailto:rchapparosa@ci.banning.ca.us]
Sent: Tuesday, October 06, 2015 11:18 AM
To: John Herrera
Cc: dmartin@ci.banning.ca.us
Subject: MuniTemps_Amendment #1_to_Consultant_Agreement.docx

John,

Attached is an amended agreement with MuniTemps and the City of Banning for your review and consideration for Dean Martin due to the CALPERS retirement annuitant issue.

Please contact me to discuss along with Dean.

Thank you,

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: Rita Chapparosa
Sent: Tuesday, October 06, 2015 2:57 PM
To: Dean Martin
Subject: FW: MuniTemps_Amendment #1_to_Consultant_Agreement.docx
Importance: High

Dean,

Do we need to call John?

Rita Chapparosa
Deputy Human Resources Director
City of Banning
Email: rchapparosa@ci.banning.ca.us
Phone: 951-922-3147 Fax: 951-922-3157

From: John Herrera [<mailto:jherrera@munitemps.com>]
Sent: Tuesday, October 06, 2015 12:05 PM
To: Rita Chapparosa
Cc: Dean Martin; Craig Levorsen; Monica Rueda
Subject: RE: MuniTemps_Amendment #1_to_Consultant_Agreement.docx
Importance: High

Hi Rita,

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Please sign and return the new Exhibit "A" so I can pass on the 22.7% hourly increase to Dean Martin.

Thank you.

John Herrera, C.P.A., MPA
President/CEO & Municipal Finance Officer
MuniTemps / Municipal Staffing Solutions
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Nationwide Corporate Headquarters:
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From: rchapparosa@ci.banning.ca.us [mailto:rchapparosa@ci.banning.ca.us]

Sent: Tuesday, October 06, 2015 11:18 AM

To: John Herrera

Cc: dmartin@ci.banning.ca.us

Subject: MuniTemps_Amendment #1_to_Consultant_Agreement.docx

John,

Attached is an amended agreement with MuniTemps and the City of Banning for your review and consideration for Dean Martin due to the CALPERS retirement annuitant issue.

Please contact me to discuss along with Dean.

Thank you,

Rita Chapparosa

Deputy Human Resources Director

City of Banning

Email: rchapparosa@ci.banning.ca.us

Phone: 951-922-3147 Fax: 951-922-3157

GOVERNMENT STAFFING SERVICES, INC.

EXHIBIT "A"
of Municipal Staffing Agreement



Corporate Mailing Address: PO Box 718, Imperial Beach, CA 91933
Phone: 1-866-406-6864 • Fax: 1-866-498-6678
Website: www.munitemps.com

Municipality:	City of Banning	Notes
Client Contact:	Rita Chapparosa	Deputy HR Director
Interim Position:	City Manager	Dean Martin
Bill Rate per Hour:	\$117.97	All hours will be billed at this rate as long as the "minimum" 4/10 Work Scheduled is worked.
Hours per Week:	40+	
Start Date:	10/14/2015	
Expected Duration:	178 Hours	City will request extension if needed in writing.

Authorized Signature: _____
City Representative

If CITY uses the services of Dean Martin presented as its direct employee, as an independent contractor, or through any person or firm other than MuniTemps during or within 183 days after any assignment of Dean Martin to CITY from MuniTemps, CITY must notify MuniTemps and pay a lump sum equal to (a) 9% of the annual salary offered Dean Martin if that Employee has worked a minimum of 980 hours or (b) 10% of the annual salary of Dean Martin if the Employee has worked less than 980 hours for CITY.

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Colin Tanner

From: Dean Martin
Sent: Thursday, October 01, 2015 2:12 PM
To: Rita Chapparosa; Michelle Green
Subject: REvised MuniTemps Contract Amendment

Added clarifying language that the contract increase is to be paid directly to the Interim City Manager.

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AMENDMENT #1 TO AGREEMENT FOR MUNICIPAL STAFFING SERVICES

THIS AMENDMENT TO THE AGREEMENT FOR PROFESSIONAL SERVICES ("Amendment") by and between the **CITY OF BANNING** ("City") and Government Staffing Services, Inc dba MuniTemps (MuniTemps), a California corporation ("Consultant") is effective as of the 14th day of October, 2015.

RECITALS

A. City and Consultant entered into that certain Agreement for Municipal Staffing Services dated May 21, 2015 ("Agreement") on whereby Consultant agreed to provide Staffing Services for the City of Banning.

B. City and Consultant now desire to amend the Agreement to include additional compensation in an amount not to exceed Twenty-one Thousand Dollars and 00/100 (\$21,000.00) to the original Contract Amount and revise the Exhibit "A". The original Exhibit "A" is modified and revised to reflect an hourly rate of \$117.97.

TERMS

1. **Contract Changes.** The Agreement is amended as provided herein.
 - (a) Exhibit "A" to the Agreement is hereby amended to include the additional hourly compensation to be paid directly to the Interim City Manager, Dean Martin, by increasing the contracted rate to be paid to MuniTemps from 96.15 to 117.97.
2. **Continuing Effect of Agreement.** Except as amended by this Amendment, all provisions of the Agreement shall remain unchanged and in full force and effect. From and after the date of this Amendment, whenever the term "Agreement" appears in the Agreement, it shall mean the Agreement, as amended by this Amendment to the Municipal Staffing Agreement.

3. **Affirmation of Agreement; Warranty Re Absence of Defaults.** City and Consultant each ratify and reaffirm each and every one of the respective rights and obligations arising under the Agreement. Each party represents and warrants to the other that there have been no written or oral modifications to the Agreement other than as provided herein. Each party represents and warrants to the other that the Agreement is currently an effective, valid and binding obligation.

Consultant represents and warrants to City that, as of the date of this Amendment, City is not in default of any material term of the Agreement and that there have been no events that, with the passing of time or the giving of notice, or both, would constitute a material default under the Agreement.

City represents and warrants to Consultant that, as of the date of this Amendment, Consultant is not in default of any material term of the Agreement and that there have been no events that, with the passing of time or the giving of notice, or both, would constitute a material default under the Agreement.

4. **Adequate Consideration.** The parties hereto irrevocably stipulate and agree that they have each received adequate and independent consideration for the performance of the obligations they have undertaken pursuant to this Amendment.

5. **Authority.** The persons executing this Agreement on behalf of the parties hereto warrant that (i) such party is duly organized and existing, (ii) they are duly authorized to execute and deliver this Agreement on behalf of said party, (iii) by so executing this Agreement, such party is formally bound to the provisions of this Agreement, and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which said party is bound

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first-above written.

CITY:

CITY OF BANNING, a municipal corporation

Debbie Franklin, Mayor

ATTEST:

Marie Calderon, City Clerk

CONSULTANT:

Government Staffing Services, Inc

By: _____
Name:
Title:

By: _____
Name:
Title:

Address: P.O. Box 718, Imperial Beach,
CA. 91933 1-866-406-6864

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Colin Tanner

From: Dean Martin
Sent: Thursday, October 01, 2015 9:08 AM
To: Rita Chapparosa; Michelle Green
Subject: MuniTemps Contract Amendment

Let's meet to discuss how this should be handled and who would be best to discuss with John Herrera.

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AMENDMENT #1 TO AGREEMENT FOR MUNICIPAL STAFFING SERVICES

THIS AMENDMENT TO THE AGREEMENT FOR PROFESSIONAL SERVICES ("Amendment") by and between the **CITY OF BANNING** ("City") and Government Staffing Services, Inc dba MuniTemps (MuniTemps), a California corporation ("Consultant") is effective as of the 14th day of October, 2015.

RECITALS

A. City and Consultant entered into that certain Agreement for Municipal Staffing Services dated May 21, 2015 ("Agreement") on whereby Consultant agreed to provide Staffing Services for the City of Banning.

B. City and Consultant now desire to amend the Agreement to include additional compensation in an amount not to exceed Twenty-one Thousand Dollars and 00/100 (\$21,000.00) to the original Contract Amount and revise the Exhibit "A". The original Exhibit "A" is modified and revised to reflect an hourly rate of \$117.97.

TERMS

1. **Contract Changes.** The Agreement is amended as provided herein.

(a) Exhibit "A" to the Agreement is hereby amended to include the additional hourly compensation for the Interim City Manager, Dean Martin, by increasing the contracted rate to be paid to MuniTemps from 96.15 to 117.97.

2. **Continuing Effect of Agreement.** Except as amended by this Amendment, all provisions of the Agreement shall remain unchanged and in full force and effect. From and after the date of this Amendment, whenever the term "Agreement" appears in the Agreement, it shall mean the Agreement, as amended by this Amendment to the Municipal Staffing Agreement.

3. **Affirmation of Agreement; Warranty Re Absence of Defaults.** City and Consultant each ratify and reaffirm each and every one of the respective rights and obligations arising under the Agreement. Each party represents and warrants to the other that there have been no written or oral modifications to the Agreement other than as provided herein. Each party represents and warrants to the other that the Agreement is currently an effective, valid and binding obligation.

Consultant represents and warrants to City that, as of the date of this Amendment, City is not in default of any material term of the Agreement and that there have been no events that, with the passing of time or the giving of notice, or both, would constitute a material default under the Agreement.

City represents and warrants to Consultant that, as of the date of this Amendment, Consultant is not in default of any material term of the Agreement and that there have been no events that, with the passing of time or the giving of notice, or both, would constitute a material default under the Agreement.

4. **Adequate Consideration.** The parties hereto irrevocably stipulate and agree that they have each received adequate and independent consideration for the performance of the obligations they have undertaken pursuant to this Amendment.

5. **Authority.** The persons executing this Agreement on behalf of the parties hereto warrant that (i) such party is duly organized and existing, (ii) they are duly authorized to execute and deliver this Agreement on behalf of said party, (iii) by so executing this Agreement, such party is formally bound to the provisions of this Agreement, and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which said party is bound

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date and year first-above written.

CITY:

CITY OF BANNING, a municipal
corporation

Debbie Franklin, Mayor

ATTEST:

Marie Calderon, City Clerk

CONSULTANT:

Government Staffing Services, Inc

By: _____

Name:

Title:

By: _____

Name:

Title:

Address: P.O. Box 718, Imperial Beach,
CA. 91933 1-866-406-6864

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CITY COUNCIL AGENDA

DATE: October 13, 2015

TO: CITY COUNCIL

FROM: Rita Chapparosa, Deputy Human Resources Director
Michelle M. Green, Deputy Finance Director

SUBJECT: Amendment to Government Staffing Services, Inc. Contract

RECOMMENDATION: Authorize the Mayor to execute the attached amendment increasing the Government Staffing Services, Inc. contract by \$20,000 to cover increased compensation for the Interim City Manager as required by GC 21221(h) (law regarding CalPERS retired annuitants).

JUSTIFICATION: GC (Government Code) 21221(h) sets forth the laws regarding CalPERS retired annuitants and how any public agency which is a member of CalPERS can make use of a retired employee on an interim basis. In addition to limiting the number of hours worked and requiring a limited duration for an interim assignment, the agency is required to pay the minimum published hourly rate for the applicable position.

BACKGROUND: Government Staffing Services, Inc. has provided staffing on an interim basis for the City since April, 2014. Effective January 5, 2015, Dean Martin was provided by Government Staffing Services, Inc., after interview and acceptance by the City's then Administrative Services Director (whose departure was imminent), to fill the Administrative Services Director position on an interim basis while a City recruitment was in process. On May 12, 2015, Mr. Martin was appointed by the City Council to serve as the Interim City Manager.

CalPERS learned of the employment of the retired annuitant and conducted an administrative review. It was their determination that the City met all of the retired annuitant guidelines during Mr. Martin's assignment as the Administrative Services Director (January 5, 2015 – May 12, 2015). However, once Mr. Martin was appointed as the Interim City Manager, without an increase in salary, the City was in violation of the law. The requirement with respect to compensation of the retired annuitant was not known, so no adjustment had been made.

CalPERS stated that the City "should" increase Mr. Martin's pay rate to comply with the requirements of the law. However, in this one instance, CalPERS would not implement any punitive actions against the City if we chose not to comply.

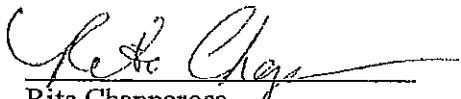
Although CalPERS has chosen not to administratively pursue this issue, staff feels that it is still appropriate to increase Mr. Martin's hourly rate retroactive to the date he became

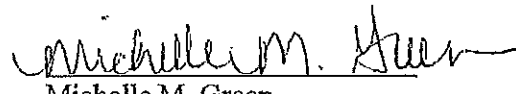
the Interim City Manager. This would allow the City to be in full compliance with the law. In addition, the duties and responsibilities of the Interim City Manager position are substantially more than those expected from the Administrative Services Director position and he should, therefore, be compensated accordingly.

In order to comply with GC 21221(h), staff is now requesting an adjustment to the contract with Government Staffing Services, Inc. by \$20,000 to adjust Mr. Martin's pay to the minimum required as a CalPERS retired annuitant. The adjustment amounts to an increase of \$21.82 to Mr. Martin's hourly rate, retroactive to May 13, 2015.

FISCAL DATA: The \$20,000 will come from personnel savings due to not having permanent staff in the positions of Administrative Services Director and City Manager. FY16 projected net savings (including this adjustment) through mid-November, when Mr. Martin's assignment ends, are expected to be \$148,500.

RECOMMENDED BY:


Rita Chapparosa
Deputy Human Resources


Michelle M. Green
Deputy Finance Director

CITY COUNCIL AGENDA

DATE: October 13, 2015 (continued to 10/27/15 Council Meeting)
TO: Honorable Mayor and City Council
FROM: Alex Diaz, Chief of Police
SUBJECT: Sex Offenders and Child Offenders Update

BACKGROUND:

In the 1990s, federal and state legislatures enacted various laws intended to protect minors from registered sex offenders. At the federal level, this legislation included Megan's Law, which was adopted in 1996 and created a nation-wide sex offender registry. At the state level, the California legislature adopted a series of regulations on the day-to-day lives of registered sex offenders, codified at California Penal Code §§ 290 et seq., including a voter-approved measure known as "Jessica's Law," codified at California Penal Code § 3003.5 ("Section 3003.5").

Section 3003.5 regulates the residency of registered sex offenders. It specifically prohibits registered sex offenders from residing within two thousand feet of a school or park (Section 3003.5(b)), and expressly permits supplemental local regulation of sex offender residency (Section 3003.5(c).)

In addition, California Penal Code section 653b (Section 653b) regulates loitering by registered sex offenders and provides any 290 registrant who "loiters about any school or public place at or near which children attend or normally congregate" is guilty of a misdemeanor.

After the adoption of those state laws, concerns arose among numerous California cities regarding how local agencies could enforce Megan's Law and Jessica's Law. Due to those concerns, over seventy-five (75) California municipalities, enacted local ordinances further regulating the residency, loitering and other activities of registered sex offenders in their communities.

Recent Court Cases & Legal Challenges Re: Sex Offender Regulations

In the year 2012, a registered sex offender residing in San Diego County initiated the matter of "In re William Taylor et al". The offender sought a court order enjoining the California Department of Corrections and Rehabilitation ("CDCR") from enforcing the residency restrictions set forth in Jessica's Law/Section 3003.5, on the grounds the blanket restriction was unconstitutional. The trial court agreed with the sex offender, and granted the relief sought. The CDCR appealed, and the Court of Appeals, Fourth Appellate District, affirmed the trial court's order in favor of the registered sex offender.

In April 2014, cities enforcing local Ordinances received communication from "The California Reform Sex Offender Laws" ("RSOL") group. Counsel for RSOL stated that, in light of these recent decisions, they would consider litigation if current city Ordinances remain in place.

The RSOL organization, through a representative plaintiff named Mr. Frank Lindsay, has sued five (5) California cities regarding their sex offender ordinances, including the City of Pomona (on March 24, 2014), City of South Lake Tahoe (on April 1, 2014), National City (on April 4, 2014), the City of Lompoc (on April 21, 2014) and the City of Carson (on May 2, 2014). In response to the court opinions, and the initiation of the In re Taylor case, in the last year approximately twenty-eight (28) cities have either suspended all sex offender regulation enforcement, amended their municipal codes, or repealed their local regulations outright. We are advised that several additional cities are considering action to amend or repeal their codes in the coming months. Approximately eighteen (18) separate lawsuits have been filed against cities which did not amend or repeal their laws to conform to the new appellate decisions.

On March 2, 2015, the California Supreme Court ruled in the case of "In re William Taylor et al." that the blanket restrictions allowed in the penal code were unconstitutional, ruling that each case should be evaluated independently based on the individual defendant in question.

While the case involved local residency requirements in the County of San Diego, the ruling of the California Supreme Court affects the interpretation of the Penal Code throughout the State and any local ordinance with "blanket" residency restrictions for sex registrants.

In light of these recent opinions by our state's high courts, it is recommended that the City Council allow the Banning Police Department to align with state law and track current state law related to regulations on the residency and activities of registered sex offenders.

FISCAL DATA: N/A

RECOMMENDED BY:

A handwritten signature in black ink, appearing to read "Dean Martin", written over a horizontal line.

Dean Martin
Interim City Manager

PREPARED BY:

A handwritten signature in black ink, appearing to read "Alex Diaz", written over a horizontal line.

Alex Diaz
Chief of Police

CITY COUNCIL MEETING

DATE: October 13, 2015 (continued to 10/27/15 Council Meeting)

TO: City Council

FROM: Art Vela, Acting Director of Public Works

SUBJECT: Resolution No. 2015-92, "Approving an Amendment to the Professional Services Agreement with Charles Abbott Associates, Inc. to include Engineering Services"

RECOMMENDATION: The City Council adopt Resolution No. 2015-92:

- I. Approving an Amendment to the Professional Services Agreement with Charles Abbott Associates, Inc. of Mission Viejo, California in the amount of \$125,000.00 for Fiscal Year 2015/2016 with the option to renew for three additional years.
- II. Authorizing the Administrative Services Director to make necessary budget adjustments and appropriations and transfers related to the agreement.
- III. Authorizing the Interim City Manager to execute the Professional Services Agreement with Charles Abbott Associates, Inc. for Fiscal Year 2015/2016 with the option to renew for three additional years.

JUSTIFICATION: An amendment to the Professional Services Agreement is necessary in order to provide staff augmentation that will assist in meeting the current demands and operational needs of the Public Works Department.

BACKGROUND: On June 23, 2015 under Resolution No. 2015-60, City Council approved an agreement with Charles Abbott Associates Inc. ("CAA") of Mission Viejo for Building and Safety Services including Building Official Administrative Services; Public Counter Assistance; Building Permit Plan Checking; Building Inspection Services; and Building Abatement.

The award of this agreement was approved based on the Request for Proposals ("RFP") process conducted by the Community Development Department. As a result, efforts by the Community Development Department resulted in the City obtaining seven (7) proposals as listed below:

Consultants

- 1) Bureau Veritas North America, Inc., of Costa Mesa, California
- 2) Charles Abbott Associates, Inc., of Mission Viejo, California
- 3) CSG Consultants, Inc., of Santa Ana, California
- 4) HR Green of Orange, California
- 5) Interwest Consulting Group of Palm Spring, California

- 6) JAS Pacific of Upland, California
- 7) Willdan of San Bernardino, California

As part of the selection process, proposals were evaluated and firms were interviewed in categories including 1) team qualification; 2) capabilities of the consulting firm; 3) understanding and approach, and 4) controls of oversight. As a result, CAA earned the highest rated score and was awarded a professional services agreement by City Council.

Currently, there are two Senior Civil Engineering vacancies in the Public Works Department: one was created by the retirement of the City Engineer (position was reclassified to Senior Civil Engineer) and one is temporarily vacant as the incumbent is the Acting Public Works Director/City Engineer. Based on current demands, operational needs and two Senior Civil Engineering vacancies, it necessary for the department to obtain professional engineering/staff augmentation services to continue to meet the needs of the City.

The services to be provided include: plan check of improvement plans, parcel/tract maps, and right-of-way dedications; review of technical reports; preparation of request for proposals for design projects; management of design projects; and preparation of plans and specifications for capital improvement projects including project management.

In an effort to expedite the process, Public Works staff reviewed proposal evaluations for the listed firms as well as resumes of the project team that CAA has put together to provide the requested services to the City. Additionally, the Acting Public Works Director interviewed project team members and determined the proposed team has the experience and knowledge to provide the requested services. Staff also found that the proposed rate schedule is competitive.

Staff respectively requests that the City Council approve an amendment with CAA for Engineering Services in an amount not to exceed \$125,000.00 for Fiscal Year 2015/2016 with the option to renew this portion of the agreement for three (3) additional one year periods for an amount of \$175,000.00 per year upon an annual satisfactory review of engineering services provided and until the two vacancies previously mentioned are filled and as long as salary savings can fund these services.

FISCAL DATA: The Amendment to the Professional Services Agreement with CAA shall be funded by salary savings obtained through vacant positions in the Public Works Department which is estimated to be \$330,000.00 per year.

RECOMMENDED BY:



Art Vela
Acting Director of Public Works

REVIEWED/APPROVED BY:



Dean Martin
Interim City Manager

Attachments:

- | | |
|---|-------------------------|
| 1. City Council Resolution No. 2015-60 | 3. Project Team Resumes |
| 2. Consultant Evaluations Prepared by Interview Committee | 4. Rate Sheet |

RESOLUTION NO. 2015-92

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BANNING, CALIFORNIA, APPROVING AN AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH CHARLES ABBOTT ASSOCIATES, INC. TO INCLUDE ENGINEERING SERVICES

WHEREAS, on June 23, 2015 City Council approved an agreement with Charles Abbott Inc. of Mission Viejo for Building and Safety Services including Building Official Administrative Services; Public Counter Assistance; Building Permit Plan Checking; Building Inspection Services; and Building Abatement; and

WHEREAS, the award of this agreement was approved based on the Request for Proposals ("RFP") process conducted by the Community Development Department which resulted in the City obtaining seven (7) proposals including Bureau Veritas North America, Inc., of Costa Mesa; Charles Abbott Associates, Inc., of Mission Viejo; CSG Consultants, Inc., of Santa Ana; HR Green of Orange; Interwest Consulting Group of Palm Spring; JAS Pacific of Upland; Willdan of San Bernardino; and

WHEREAS, as part of the selection process, proposals were evaluated and firms were interviewed in categories including 1) team qualification; 2) capabilities of the consulting firm; 3) understanding and approach, and 4) controls of oversight and as a result, Charles Abbott Associates, Inc. earned the highest rated score and was awarded a contract by City Council; and

WHEREAS, currently, there are two Senior Civil Engineering vacancies: one was created by the retirement of the City Engineer (position was reclassified to Senior Civil Engineer) and one is temporarily vacant as the incumbent is the Acting Public Works Director/City Engineer and therefore it was determined necessary that the Public Works Department obtain professional engineering services in order to provide staff augmentation to meet the needs of the City; and

WHEREAS, the scope of work for necessary services includes the plan check of improvement plans, parcel/tract maps, and right-of-way dedications; review of technical reports; preparation of request for proposals for design projects; management of design projects; and preparation of plans and specifications for capital improvement projects including project management; and

WHEREAS, Public Works staff reviewed proposal evaluations for the listed firms as well as resumes of the project team that Charles Abbott Inc. has put together to provide the requested services to the Public Works Department; additionally, the Acting Public Works Director interviewed project team members; and

WHEREAS, staff respectfully request that City Council approve an amendment with Charles Abbott Associates, Inc. for engineering services in an amount not to exceed \$125,000.00 for Fiscal Year 2015/2016 with the option to renew this portion of the agreement for three (3) additional one year periods for an amount of \$175,000.00 per year upon an annual

satisfactory review of engineering services provided and until two vacancies in the Public Works Department are filled and as long as salary savings can fund these services; and

WHEREAS, the Amendment to the Professional Services Agreement with Charles Abbott Associates, Inc. shall be funded by salary savings obtained through vacant positions in the Public Works Department which amount to approximately \$330,000.00 per year.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Banning as follows:

SECTION 1. The Banning City Council adopts Resolution No. 2015-92 approving an amendment to the Professional Services Agreement with Charles Abbott Associates, Inc. of Mission Viejo, California in an amount "not to exceed" \$125,000.00 for Fiscal Year 2015/2016 with the option to renew this portion of the agreement for three (3) additional one year periods for an amount of \$175,000.00 per year upon an annual satisfactory review of engineering services provided; and

SECTION 2. The Administrative Services Director is authorized to make necessary budget adjustments and appropriations and transfers related to this amendment.

SECTION 3. The Interim City Manager is authorized to execute the Amendment to the Professional Services Agreement with Charles Abbott Associates, Inc. of Mission Viejo, California, in a form approved by the City Attorney.

PASSED, ADOPTED AND APPROVED this 13th day of October, 2015.

Deborah Franklin, Mayor
City of Banning

ATTEST:

Marie A. Calderon,
City Clerk of the City of Banning

**APPROVED AS TO FORM AND
LEGAL CONTENT:**

Lona N. Laymon, City Attorney
Aleshire & Wynder, LLP

CERTIFICATION:

I, Marie Calderon, City Clerk of the City of Banning, California, do hereby certify that the foregoing Resolution No. 2015-92, was duly adopted by the City Council of the City of Banning, California, at a Regular Meeting thereof held on the 13th day of October, 2015, by the following vote, to wit:

AYES:

NOES:

ABSTAIN:

ABSENT:

Marie A. Calderon,
City Clerk of the City of Banning

Attachment 1
City Council Resolution No. 2015-60

RESOLUTION NO. 2015-60

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BANNING, CALIFORNIA, AUTHORIZING THE INTERIM CITY MANAGER TO ENTER INTO THE CONTRACT SERVICES AGREEMENT WITH CHARLES ABBOTT ASSOCIATES, INC. FOR BUILDING & SAFETY SERVICES.

WHEREAS, on July 13, 2011, the City Council approved a Contract Services Agreement with Willdan to provide Building & Safety Services for a one (1) year period. Subsequently, on June 12, 2012, the City Council adopted Resolution No. 2012-44 amending the Contract Services Agreement to continue the services of Willdan for an additional three (3) year period until June 30, 2015. As a result, Willdan has provided Building & Safety Services for a four (4) year period. Pursuant to Section 3.24.070(A)(7) (Formal Bid Procedures) of the Banning Municipal Code, *"no professional service contract shall extend for a period of more than five years, including any authorized extensions."* Therefore, the City may desire to consider a new Contract Services Agreement so that the City may maintain its Building & Safety functions. By soliciting proposals at this time, the City can ensure the most efficient and cost effective level of service; and,

WHEREAS, staff prepared and then on March 30, 2015 released a Request for Proposals seeking a professional consulting firm to provide Building & Safety Services to the City in the following areas: Building Official Administrative Services; Public Counter Assistance; Building Permit Plan Checking; Building Inspection Services; and, Building Abatement; and,

WHEREAS, on April 3, 2015, the Request for Proposals was posted on the City's website and published in The Record Gazette; and

WHEREAS, on April 30, 2015, the Community Development Department received seven (7) responses to the Request for Proposals from the following consulting firms:

Consultant	Location
Bureau Veritas North America, Inc.	Costa Mesa, CA
Charles Abbott Associates, Inc.	Mission Viejo, CA
CSG Consultants, Inc.	Santa Ana, CA
HR Green	Orange, CA
Interwest Consulting Group	Palm Springs, CA
JAS Pacific	Upland, CA
Willdan	San Bernardino, CA

WHEREAS, on May 13, 2015, the Community Development Department, represented by an independent committee of three (3) persons, conducted interviews with five (5) of the seven (7) consulting firms. The consulting firms Bureau Veritas North America and JAS Pacific declined to participate in the interview process and, therefore, have been eliminated from consideration of the evaluation process. The rating categories/criteria included: 1) team qualifications; 2) capabilities of the consulting firm; 3) understanding and approach; and, 4) controls of oversight. The following table provides a summary of the interview ratings:

Firm Name	Rater #1	Rater #2	Rater #3	Total
(1) Charles Abbott Associates, Inc.	395	450	410	1,255
(2) Willdan	335	315	340	990
(3) CSG Consultants, Inc.	360	325	295	980
(4) Interwest Consulting Group	335	260	360	955
(5) HR Green	225	180	360	660

WHEREAS, as part of their respective proposals, the consulting firms were requested to provide a proposed fee for the provision of the requested Building & Safety Services. The following table provides a summary of the proposed rates:

Consultant	Hourly Rates	Percentage
Charles Abbott Associates, Inc. Building Official Building Permit Plan Checking Building Inspection Public Counter Assistance	N/A N/A N/A N/A	65% for First \$15,000 of Monthly Fees Collected by City. 55% for Amounts Over \$15,001 of Monthly Fees Collected by City.
CSG Consultants, Inc. Building Official Building Permit Plan Checking Building Inspection Public Counter Assistance	\$110 N/A \$75 \$55	75% of Monthly Fees Collected by City.
HR Green Building Official Building Permit Plan Checking Building Inspection Public Counter Assistance	\$135 \$95-\$150 \$90-\$110 \$75	Unresponsive Fee Proposal, Requires Costs.
Interwest Consulting Group Building Official Building Permit Plan Checking Building Inspection Public Counter Assistance	N/A N/A N/A \$55	75% of Monthly Fees Collected by City.
Willdan Building Official Building Permit Plan Checking Building Inspection Public Counter Assistance	N/A N/A N/A \$59.00	75% of Monthly Fees Collected by City.

WHEREAS, upon a thorough evaluation of the proposals in terms of experience and expertise in correlation with the respective fees, staff concluded that Charles Abbott Associates has submitted the highest qualified team with a competitive fee for the provision of the requested Building & Safety Services. On June 15, 2015, the City's Budget and Finance Committee reviewed and considered staff's recommendation. The following table provides a summary of the cumulative scoring:

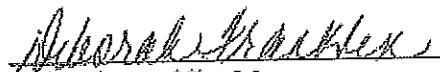
Firm Name	Rating Ranking	Fee Ranking	Total Score
Charles Abbott Associates, Inc.	1	1	2
Willdan	2	2	4
Interwest Consulting Group	4	3	7
CSG Consultants, Inc.	3	4	7
HR Green	5	5	10

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Banning as follows:

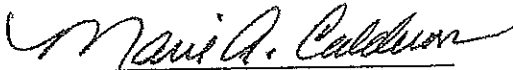
SECTION 1: Authorize the Interim City Manager to execute the Contract Services Agreement with Charles Abbott Associates, Inc. (attached Exhibit "A") to provide Building & Safety Services in the amount not to exceed a fee of 65% of the fees paid for the first \$15,000, 55% of the fees paid in the amounts from \$15,001 to \$30,000, and 50% of the fees paid in the amounts over \$30,001. This authorization will be rescinded if the Contract Services Agreement is not executed by both parties within sixty (60) days of the date of this Resolution.

SECTION 2: Authorize the Interim City Manager to execute the Contract Services Agreement with Charles Abbott Associates, Inc. in the form that is approved by the City Attorney.

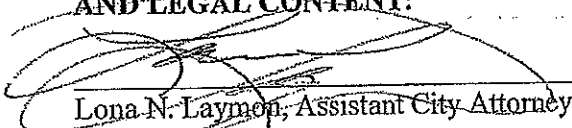
PASSED, ADOPTED AND APPROVED this 23rd day of June, 2015.


Deborah Franklin, Mayor
City of Banning, California

ATTEST:


Marie A. Calderon, City Clerk
City of Banning

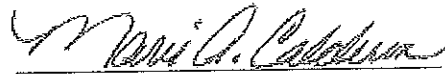
APPROVED AS TO FORM
AND LEGAL CONTENT:


Lona N. Laymon, Assistant City Attorney
Aleshire and Wynder, LLP.

CERTIFICATION:

I, Marie A. Calderon, City Clerk of the City of Banning, California, do hereby certify that the foregoing Resolution No. 2015-60 was duly adopted by the City Council of the City of Banning, California, at a regular meeting thereof held on the 23rd day of June, 2015, by the following vote, to wit:

AYES: Councilmembers Miller, Moyer, Peterson, Welch, Mayor Franklin
NOES: None
ABSTAIN: None
ABSENT: None



Marie A. Calderon, City Clerk
City of Banning, California

Attachment 2
Consultant Evaluations by Previous Interview Committee

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant: CHARLES ABBOTT ASSOC.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	9	Good Experience
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	8	APPEAR TO BE RESPONSIVE TO CITY'S NEEDS
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	14	PROPOSED STAFF LIVE IN THE AREA
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	5	OK
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5	5	Good Record
GENERAL NOTES:		TOTAL		40

WILL PAIDMENT - GOOD

HISTORY OF SERVICE

WOULD BE A GOOD CHOICE

NAME: Jeff Thomas TITLE: Building Official DATE: 5-12-14

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant:

CHARLES ABBOTT

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	10	100
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	10	100
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	15	225
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	5	25
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5		
GENERAL NOTES:		TOTAL		450
NAME: <i>Charles Abbott</i> TITLE: <i>Contract Planner</i> DATE: <i>5/13/15</i>				

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant: *Charles Abbott*

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	10	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	9	Firm has staff living in the area.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	13 10	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	5	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5	5	
GENERAL NOTES:		TOTAL		
		42		39

NAME: *M. Strein* TITLE: *Electric Utility Inspector* DATE: *5-13-15*

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant: CSC

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	8	Good strong
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's Insurance requirements	10	7	Question Their AVAILABILITY
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	13	Good knowledge of Business & PLAN REVIEW NOT FAMILIAR WITH THE CITY MEETS
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	3	Questionable
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5	5	Good REFERENCES
GENERAL NOTES: WOULD BE A REASONABLE CHARGE		TOTAL		36
NAME: <u>JEFF THOMAS</u> TITLE: <u>Building Official</u> DATE: <u>5-13-15</u>				

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant:

CSG CONSULTANTS

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	5	50
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	10	100
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	150
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	5	25
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5		
GENERAL NOTES:		TOTAL		325

NAME: *MUNICA*

TITLE: *CONTRACT PLANNING*

DATE: *5/12/15*

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant: *CSG Consultants*

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	8	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	5	<i>Current staff is limited.</i>
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	3	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5	4	
GENERAL NOTES:		TOTAL 29		
NAME: <i>M. Steen</i> TITLE: <i>Electric Utility</i> DATE: <i>5-18-15</i> <i>Eng/Mstr</i>				

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant: INTERAEST

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	8	BORGAS OFFICIAL DOES NOT HAVE PLAN REVIEW EXP GENERALLY QUALIFIED
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	9	HAS GOOD HISTORY OF WORK WITH OTHER CITIES
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	NOT CLEAR ON COMMITMENT TO SCHEDULE FOR SERVICES.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	3	OK
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5	4	Good REFERENCES
GENERAL NOTES:		TOTAL		34

Possible

NAME: JEFF THOMAS TITLE: BORGAS OFFICIAL DATE: 8-13-15

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant:

INTERWEST

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	5	50
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	5	50
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	150
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	2	10
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5		
GENERAL NOTES:		TOTAL		210

NAME: OWNER

TITLE: PLANNER

DATE: 5/13/15

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant: *Interwest Consulting Group*

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	6	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	8	<i>Firm was not clear about having full Time Inspector.</i>
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	13	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	5	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5	3	
GENERAL NOTES:		TOTAL 35		
NAME: <i>M. Stettin</i> TITLE: <i>Electric Utility Inspector</i> DATE: <i>5-13-15</i>				

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant: H R GREEN

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	5	NOT COMPLETE REVIEWS
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	4	COULD NOT SPECIFY STATE
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	8	TO SPEAK ON ANSWERS - NOT SPEAK
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	3	NOT CLEAR
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5	3	NOT CLEAR
GENERAL NOTES:		TOTAL		23

NAME: J. C. Thomas TITLE: Building Official DATE: 5.13.13

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant:

HR GREEN

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	5	50
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	5	50
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	5	75
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	1	5
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5		
GENERAL NOTES:		TOTAL		180

NAME: *MILICA*

TITLE:

CONTRACT PLANNER

DATE:

5/13/15

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant: *HR Green*

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	5	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	5	<i>Current state is limited</i>
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	1	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5	1	
GENERAL NOTES:		TOTAL		
		22		

NAME: *M. Green* TITLE: *Electric Utility Inspector* DATE: *5-13-15*

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant: WILLOAN

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	8	Have Good EXPERISE
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	7	QUESTIONABLE STAFFING
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	11	KNOWLEDGE OF THE WORK BUT ONLY PROVIDED AN INSPECTIONS
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	4	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5	11	GOOD REFERENCES
GENERAL NOTES:		TOTAL		34

Possibly

NAME: Jeff Titmuss TITLE: Building Official DATE: 5-13-

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

Consultant:

WILLDAR

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	8	80
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	8	80
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	150
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	1	5
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5		
GENERAL NOTES:		TOTAL		315

NAME:

OLIVER
WILLDAR

TITLE:

CONTRACT
PLANNER

DATE:

5/13/15

CONSULTANT EVALUATION FOR BUILDING AND SAFETY SERVICES

Project:

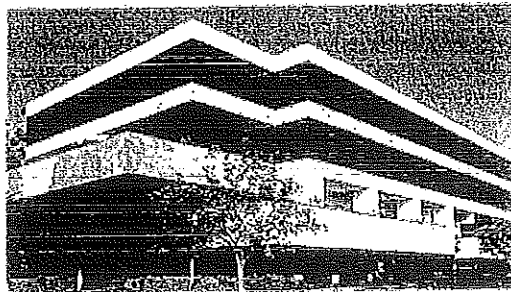
Consultant: *Willdon*

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	COMMENTS
1	PROJECT TEAM - Qualifications and Relevant Individual Experience - Unique qualifications of key members for this project - Time commitment of key members - Organizational Chart	10	8	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management and other organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet the City's insurance requirements	10	5	<i>Currently Willdon Inspectors are not on site for inspection full time</i>
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Explained a logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	13	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements - Firm location (work done) & accessibility to City staff	5	3	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget	5	4	
GENERAL NOTES:		TOTAL 38		
NAME: <i>M. Green</i> TITLE: <i>Electric Utility Inspection</i> DATE: <i>5-13-16</i>				

Attachment 3
Project Team Resumes

CAA *Charles Abbott Associates, Inc.*

SEPTEMBER 23, 2015



**Engineering / Public Works
Projects On-Call Services
Resumes and Sample Projects**

Prepared for

CITY OF BANNING

Art Vela P.E.
Acting Public Works Director
City of Banning
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Banning, CA 92220

**By
Charles Abbott Associates, Inc.**

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Mission Viejo, CA 92691
Toll Free: (866) 530-4980
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www.caaprofessionals.com

RON GRIDER, PE, CBO - PROJECT MANAGER

Years of Experience: 32 + Years

Education: B.S., Civil Engineering, California State University Los Angeles

Registration: Civil Engineer: California (C70053), Georgia (PE037018),
Colorado (PE46346) Nevada (018633), Florida (PE78224)

Certification: ICC Certified Building Official (0878901-CB)
ICC Certified Building Inspector (0878901-B5,K1,10)
ICC Certified Electrical Inspector (0878901-K2,E5)
IAEI Certified Electrical Inspector
ICC Certified Mechanical Inspector (0878901-M5,K4,44)
ICC Certified Plumbing Inspector (0878901-P5,K3,34)
ICC Certified Plans Examiner (878901-K6)
ICC Certified Combination Inspector (0878901-K8,K4,C8,50)
ICC Certified Combination Dwelling Inspector (0878901-R5,56)
OES/CALEMA DISASTER SERVICE WORKER (61525)

Mr. Grider, with over 32 years of construction, public works/engineering, and building & safety experience, has held the position of Building Official (Yucaipa, Pomona), County Engineer (Nye County Nevada), Sr. Engineering Manager (Wildomar), City Engineer (Riverdale GA) as well as numerous other positions throughout his career. Ron has a passion for the field of construction and engineering. He is a compassionate leader focused on customer service in the public sector, and is routinely involved in the presentation of building code, engineering principles, and advancing the cause of preventing life loss and protecting property. As Director for CAA, he directs the services CAA provides in building and safety and engineering in California, Nevada and Georgia, as well as quality control and evaluation. Ron has experience in reviewing the project types anticipated, from grading reviews to WQMP's to street improvement plans.

AREA OF RESPONSIBILITY:

City Engineering functions, Administration, Business Development

Building and Civil Plan Review and Inspections

REPRESENTATIVE PROJECT EXPERIENCE:

- Duties and responsibilities consistent with that of City Engineer, administration, implementations of policies and procedures, oversight, bid preparation, project managing, etc.
- Numerous grading plan reviews subdivision and single lot development for projects throughout Yucaipa, Wildomar and Pomona, Nye County, Riverdale GA
- Review of SWPPP's, and WQMP's and related erosion control plans throughout the Cities of Yucaipa, Wildomar and Pomona
- Review of street improvement plans and stormdrain plans for Yucaipa and Wildomar, as well as Forest Park and Riverdale, GA
- Review of Conditions of Approvals, Title Reports, and Tract Maps, in conjunction with project plans for compliance and coordination with such documents
- Managing the daily functions of the department

DANNY CHOW, PE – SR. REGISTERED CIVIL ENGINEER

Years of Experience: 33 +

Education: B.S., Civil Engineering, California State University, Fullerton,
M.S., Civil Engineering, California State University, Fullerton,

Registration: Civil Engineer: California (C 46555), Nevada, Oregon, and
Washington

Certification: OES/CALEMA Disaster Service Worker

Mr. Chow has over 33 years of experience in management, plan review, planning, design, and construction of civil engineering projects. During his 17 years with Charles Abbott Associates, Inc., Danny has been in charge of civil design and plan review staff as well as performing many designs and reviews himself for California and Nevada communities. Danny has managed numerous CIP projects from funding, design, bidding, and construction, through completion for several agencies as project manager and provided the highest level of service to those agencies. His past experience includes street maintenance and rehabilitation, street widening, flood control and storm drains, parking facilities, public transportation facilities, parks and recreations, and other CIP projects, as well as coordination with local, state, and federal agencies.

AREA OF RESPONSIBILITY:

Civil Design & Review- Grading, Street Improvements, Drainage studies, NPDES

REPRESENTATIVE PROJECT EXPERIENCE:

Adobe Road Rehabilitation from Amboy Road to USMC Air Ground Combat Training Center, City of Twenty-nine Palms, San Bernardino County – Mr. Chow is responsible for the preparation of plans, specifications, and estimates of this 3- mile street widening and reconstruction project, which includes pulverization, removal, reconstruction of pavement, curb and gutter, drainage facilities, drywells, and traffic striping and signage. This project is currently in construction (\$4.20 million).

Corwin Road Reconstruction from Highway 18 to Apple Valley Airport, Town of Apple Valley, San Bernardino County – Mr. Chow is responsible for the preparation of plans, specifications, and estimates of this 4.3-mile street widening and reconstruction project, which includes pulverization, removal, reconstruction of pavement, curb and gutter, drainage facilities, parking area, and traffic striping and signage. This project is currently in construction (\$3.05 million).

Navajo Road Widening from Highway 18 to Waalew Road, Town of Apple Valley, San Bernardino County – Mr. Chow was responsible for the preparation of plans, specifications, and estimates of this 4-mile street widening and reconstruction project, which included pulverization, removal, reconstruction of pavement, drainage facilities, drywells, and traffic striping and signage. This project was completed in 2009 (\$2.23 million).

City-Wide Overlay Project, City of Twentynine Palms, San Bernardino County – Mr. Chow was responsible for the preparation of plans, specifications, and estimates of these 16 streets' overlay project, which included pulverization, removal, reconstruction of pavement, and traffic striping and signage. This project was completed in 2007 (\$1.23 million).

Two Mile Road Rehabilitation from Sunrise Road to Adobe Road, City of Twentynine Palms, San Bernardino County – Mr. Chow was responsible for the preparation of plans, specifications, and estimates of this 3-mile street widening and reconstruction project, which included pulverization, removal, reconstruction of pavement, drainage crossings, parking lot, and traffic striping and signage. This project was completed in 2006 (\$1.35 million).

- Pioneer Boulevard Rehabilitation, City of Cerritos: Project Manager for the design of this rehabilitation project.
- Rehabilitation of 153rd, 162nd, and 165th Streets, City of Lawndale: Project Manager on this rehabilitation project.
- Park Avenue Street Rehabilitation, City of Pomona: Project Manager for this 1-mile rehabilitation project.
- Los Angeles Avenue East, City of Moorpark: Project Manager for widening 2 miles of this arterial.
- Las Posas Road Rehabilitation and Median Landscaping, City of Camarillo: Project Manager for this 2-mile road rehabilitation project.
- Manage Design and plan review teams, providing plan review and design for contract cities, Yucaipa, Apple Valley, Twentynine Palms, Yucca Valley, Nye County Nevada, Carson City Nevada
- Numerous other projects

Contract City Engineering: Mr. Chow currently serves as Agency Engineer for the Palms. His responsibilities include:

- Bus Transit Center design and construction management
- Public parking lot design
- Safe Route to Schools sidewalk, bike path, and traffic safety improvements design
- Parks and recreation improvements design including skateboard park, swimming pool reconstruction, ball field lighting, volley ball court, pre-fabricated restrooms, and associated sidewalk and bike path and other facilities

CINDY G. KWONG-LU, PE, LEED AP- REGISTERED CIVIL ENGINEER

Years of Experience: 15 +

Education: B.S., Civil Engineering, University of California, Los Angeles, 1999

Registration: Civil Engineer: California (C 65945)

Certification: LEED Accredited Professional, GBCI No. 10469089

AREA OF RESPONSIBILITY:

Civil Review- Grading, Street Improvements, Drainage, NPDES

Ms. Kwong-Lu has over 15 years of experience in plan review, planning, and design of civil engineering projects. Of her 11 years with Charles Abbott Associates, Inc., she has reviewed many projects in southern California ranging from grading plans (rough and precise) to erosion control, street improvement and parking lot plans. Cindy has been responsible for numerous CIP projects from design, bidding, and construction, through completion for several agencies as design engineer and provided the highest level of service to those agencies. Her past experience includes pavement management and evaluation, street maintenance and rehabilitation, street widening, parking facilities, public transportation facilities, parks and recreation, and other CIP projects, and coordination with local, state, and federal agencies. Most of her experience is in the municipal arena.

Recent Project Experience

The following projects demonstrate Ms. Kwong Lu's breadth and depth of experience related to work in this engagement:

- City of Hidden Hills, Spring Valley Road Slurry Seal: Preparation of plans and specifications for this improvement project, which included the City Hall parking lot.
- City of Hidden Hills, Long Valley Road Overlay: Preparation of plans and specifications, including field survey, pavement evaluation, and striping for Long Valley Road and Highway 101 ramps.
- City of Moorpark, Los Angeles Avenue East Street Widening: Project Engineer for the preparation of street improvement plans, including retaining walls, drainage improvements, and driveway improvements.
- City of Chula Vista, Olympic Parkway Widening: Project Engineer for this street improvement project, including design of retaining walls and sound walls, utility design, drainage, grading, and cost estimates.

JANET SHLIZ, MSCE – PLAN CHECKER/ DESIGNER

Years of Experience: 32 Years

Education: B.S., Civil Engineering, Moldova Polytechnical Institute, 1977
M.S., Civil Engineering, Moldova Polytechnical Institute, 1979

AREA OF RESPONSIBILITY:

Civil Review- Grading, Street Improvements, Drainage, NPDES

Civil Design – Grading, Street Improvements, Drainage

Ms. Shliz has over 32 years of experience in plan review, planning, and design of civil engineering projects. During her 14 years with Charles Abbott Associates, Inc., she has reviewed many projects in Southern California ranging from grading plans (rough and precise) to erosion control, street improvement and parking lot plans. She has spent most of her years with CAA reviewing projects for several of our municipal clients in Southern California, many of which are in San Bernardino, LA and Orange Counties. Janet has designed and reviewed numerous CIP projects from, bidding, and construction, through completion for several agencies. Her past experience includes pavement management and evaluation, street maintenance and rehabilitation, street widening, parking facilities, public transportation facilities, parks and recreation, and other CIP projects, and coordination with local, state, and federal agencies. Most of her experience is in municipal arena.

KEY QUALIFICATIONS:

- Knowledge of Engineering Standards and Practices
- Proficient designer in areas of grading, utilities, drainage, site modeling
- Proficient with AUTOCAD 3D, CIVILCAD 3d Microsoft Office suite,
- Coordination w/ Governing Agencies & Utility coordination
- Point of contact for clients and sub consultants
- Creating Specifications and Construction Cost Estimating
- Familiar with APWA standards State and local construction standards in multiple jurisdictions

MARGARET MONSON – SR. PLAN CHECKER/ DESIGNER

Years of Experience: 27 Years

Education: Golden West Community College- Engineering
Fullerton College – Engineering

Certification: FEMA Elevation Certification
FEMA Managing Flood Plain Development

AREA OF RESPONSIBILITY:

Civil Review- Grading, Street Improvements,

Ms. Monson has over 27 years of experience in management, plan review, planning, and design of civil engineering projects. She has established and developed Public Works and Engineering departments from three employees to nine employees in partnership with the Director of Public Works. She has administered public works contracts and managed contractors. Developed engineering department procedures for three cities. Administered public works projects from concept proposal to the City Council through to project Notice of Completion; provided administrative and technical support and direction to engineers, inspectors, contractors, and maintenance staff. Assisted in the Development of Public Works and Engineering Department budget. Processed CIP and budget revisions through City Manager and Council. Conducted community meetings for resolution of problems and to inform of construction projects affecting them. Prepared Staff reports and powerpoint presentations for City Council and Planning Commission meetings and study sessions. Designed and reviewed many projects in Southern California ranging from grading plans (rough and precise) to erosion control, street improvement lot plans.

KEY QUALIFICATIONS:

- Knowledge of Engineering Standards and Practices
- Performed Construction Management & Field Inspections
- Proficient designer in areas of grading, street improvements, and drainage,
- Proficient with AUTOCAD CIVIL 3D, Microsoft Office suite, Deltek Vision
- Prepare bid-award and design-build contract documents
- Phase 1 Environmental Site Assessment reports
- Coordination w/ Governing Agencies & Utility coordination
- Administration of SWPPP for Private and Federal Contracts
- Familiar with APWA standards and local construction standards in multiple states/jurisdictions
- Oversaw floodplain management; stormwater permitting, inspected facilities
- Grant writing and package submittals to state and federal agencies
- Performed Easement Aquisitions

CRYSTAL CAMMBELL – PLAN CHECKER/ DESIGNER

Years of Experience: 24 Years

Certification: FEMA Elevation Certification
FEMA Managing Flood Plain Development

AREA OF RESPONSIBILITY:

Civil Review- Grading, Street Improvements,

Ms. Cambell has over 24 years of experience in plan review, planning, and design of civil engineering projects. She has designed and reviewed many projects in Southern California and Nevada ranging from grading plans (rough and precise) to erosion control, street improvement and parking lot plans. She has spent most of her years designing for several municipal and private clients in Southern California and Nevada. Crystal has designed and reviewed numerous CIP projects from, bidding, and construction, through completion for several agencies. Her past experience includes project design, specification & contract administration/field inspections for public and private contracts including the National Park Service Boulder Beach campground rehabilitation project, CCWRD Highland Lift Station decommissioning, State of Nevada Division of Public Works (SNDPW) Flamingo DMV rehabilitation project, SNDPW Las Vegas Nursery ADA upgrades, SNDPW Planning & Sewer upgrades at the State of Nevada Mental Health Facilities, Nye County Data Center, Nye County Public Works/Building Department Building, MGM Grand Festival Lot, and New Jerusalem Church. She has with private developers, and has experience in drafting and designing full sets of improvement plans for multi-family subdivisions and private park projects including Buffalo Ranch, North Ranch, River walk Ranch, Lake Mead Ranch, and Durango Ranch. She is experienced in coordinating with surveyors & sub consultants, obtaining project approval from governing agencies, and coordinating with local, state, and federal agencies.

KEY QUALIFICATIONS:

- Knowledge of Engineering Standards and Practices
- Performed Construction Administration & Field Inspections
- Proficient designer in areas of grading, utilities, drainage, site modeling & earthworks calculations
- Diverse Civil Design background in public and private contract civil facilities
- Phase 1 Environmental Site Assessment reports
- Coordination w/ Governing Agencies & Utility coordination
- Administration of SWPPP for Private and Federal Contracts
- Familiar with APWA standards and local construction standards in multiple states/jurisdictions
- Proficient with AUTOCAD 3D, Microsoft Office suite, Deltek Vision

KENNETH BAILEY – ASSOCIATE ENGINEER

Years of Experience: 9 Years

Education: Civil Engineering, University of California, Los Angeles,
Currently pursuing BS. Civil Engineering (Sr. Status)
A.S.: Building Inspection Technology, Butte College, August 2012

Certification: ICC Building Plans Examiner No. 5271146-B3 (renewable)
ICC Building Inspector No. 5271146-10 (renewable)

AREA OF RESPONSIBILITY:

Civil Review- Grading, Street Improvements,

Mr. Bailey has worked in the position of assistant city engineer in the City of Palos Verdes Estates for the past 11 months, where he has performed an array of duties to assist the City Engineer in the day to day operations of the department. Kenneth has over 9 years of experience in plan review and design, pavement management, PW inspections, conditions of approval writing, bid preparation, grant preparation, staff reports and other related task. Kenneth also worked prior with the USDA Forest Service where he conducted pavement condition surveys, determined Pavement Control Indices, created databases for pavement networks using MicroPAVER pavement management software, created deterioration curves for road networks, conducted land surveys, created digital ball bank indicator to create low cost road profiler and edited Contracting Officer Representative online certification module.

Kenneth has worked on many projects ranging from grading plans (rough and precise) to erosion control, as well as street improvement plans. Kenneth has worked on numerous CIP projects from, bidding, and construction, through completion. He has written specifications & performed contract administration/field inspections for public works projects.

KEY QUALIFICATIONS:

- Knowledge of Engineering Standards and Practices
- Performed Construction Administration & Field Inspections
- Proficient reviewer in areas of grading, drainage,
- Pavement Management surveys
- Coordination w/ Governing Agencies & Utility coordination
- Familiar with APWA standards and local construction standards in multiple jurisdictions
- Proficient with AUTOCAD, Microsoft Office suite, MicroPAVER
- Prepares Condition of Approval
- Performed Easement Acquisitions
- Prepared RFP and RFQ's
- Prepared numerous engineering reports and staff reports

AMELIA PAULA PEREIRA, P.L.S.

Years of Experience: 17 +years

Education: B.S., Surveying Engineering - University of Porto, Portugal, 1997

Registration: Licensed Land Surveyor California, 8493
California Land Surveyors Association, 12182

Ms. Pereira serves as a professional land surveyor at CAA. She joined the firm over 4 years ago, continuing a 17-year career of providing land surveying expertise. Her career is based upon a combination of land surveying knowledge with creative, situation-specific solutions to meet the requirements of unique challenges. Ms. Pereira's background includes handling field and office duties for civil engineering/land surveying and private companies, providing her with a broad understanding of the operations, goals, limitations and needs of private development projects as well as public agencies. She has experience in private development projects, both commercial/industrial and residential, both large and small in size, multi-family and single family. She also has experience in the preparation and plan check of land surveying documents and maps such as legal descriptions, Tract and Parcel maps, Records of Survey, Lot Line Adjustments, A.L.T.A. and topography survey maps.

Ms. Pereira has been serving as consulting Engineering Associate for the Town of Apple Valley in San Bernardino County.

Prior to joining CAA, Ms. Pereira held positions as a Land Surveyor with private civil engineering/land surveying firms in Portugal and Southern California, serving the development communities for over 13 years. Her responsibilities included field and office operations, record data research, calculations, boundary establishments, topography and construction surveys, processing through design, plan check to approval and construction of private and public development projects. Her experience varies from the construction of engineering projects including multi-story buildings, bridges, and roadwork layout, to the construction layout of subdivisions throughout Southern California. She is experienced with boundary establishment, Lot Line Adjustments, Record of Surveys, and has performed many topography, construction and A.L.T.A. surveys.

RAE BEIMER, DIRECTOR OF ENVIRONMENTAL SERVICES

Education: B.S., Environmental Science and Policy
California State University, Long Beach

Yrs. Experience: 9+ Years

Certificates: CESSWI, QSP

Ms. Beimer has a solid educational and working background in environmental programs management for both public and private sectors. She currently provides storm water (NPDES) program support to municipal clients in Riverside, San Bernardino, Orange, and Los Angeles Counties. She has extensive program management experience in Total Maximum Daily Load (TMDL) development and compliance, water quality monitoring, municipal staff training, regulatory reporting and analysis, due diligence and environmental assessments, FOG program management, SWPPP/SUSMP reviews and inspections, compliance database development and management, grant research and submittal, GIS compliance applications and inspection program implementation.

REPRESENTATIVE PROJECT EXPERIENCE:

- City of Rancho Santa Margarita, Stormwater Program Management Services: Ms. Beimer, provides on-site program management to the City of Rancho Santa Margarita, services include: Representing the City at all Permit compliance related meetings; Conducts commercial, industrial, municipal, construction site and food service facility inspections; IC/ID investigations; Development of program guidance documents, program manuals, inspection/reporting forms and BMP fact sheets.
- City of Cypress, NPDES Permit Program Management Services: Ms. Beimer administers the City of Cypress NPDES Stormwater Compliance services. In this capacity, Ms. Beimer directly develops and ensures implementation of the City's Industrial/Commercial Facility Inspection and Development Planning programs in accordance with the North Orange County Municipal Stormwater Permit.
- City of Pomona, NPDES Permit Program Management Services: Ms. Beimer directs program support staff in the development and implementation of compliance programs in support of the City's NPDES Permit goals. Ms. Beimer is responsible for directing the City's compliance efforts with the Los Angeles County Municipal Stormwater Permit and the San Gabriel River Metals TMDL.
- City of Hidden Hills, NPDES and AB939 Compliance Services: Ms. Beimer directs program support staff in the development and implementation of compliance programs in support of the City's NPDES Permit and AB939 goals. Ms. Beimer is responsible for directing the City's compliance efforts with the Santa Monica Bay Bacteria TMDL, the Los Angeles River Trash TMDL and the Los Angeles River Metals TMDL, in addition to monitoring the development of the Los Angeles River Bacteria TMDL and Malibu Creek Bacteria Implementation Program.
- City of Moreno Valley NPDES Permit Program Management Services: Ms. Beimer directs program support staff in the development and implementation of compliance programs in support of the City's NPDES Permit goals. Ms. Beimer is responsible for directing the City's compliance efforts with the Riverside County Municipal Stormwater Permit

Project Descriptions

Chapman Heights:

Client: Yucaipa CA
Contact: Ray Casey
909-797-2489

Chapman Heights Development – built in 2000, a nearly 1000 acre residential development which includes a 25 acre shopping center
Responsibility: CAA performed the review for mass grading, precise grading, storm drain, hydrology, street improvement and NPDES.

Yucaipa Uptown:

Client: Yucaipa CA
Contact Ray Casey
909-797-2489

2011/2012-Uptown street improvement project- a redevelopment project which incorporates two intersection change to round-about intersections, street widening and sidewalk improvement
Responsibility: Plan review of street improvement plans, ADA review,

Pahrump Detention Center

Client: Pahrump NV
Contact: Dave Fanning
775-751-6843

Pahrump Detention Center facility – built in 2008 a 160 acre facility for housing inmates

Responsibility: CAA performed the grading review and street improvement review and traffic study review relating to the area surrounding the detention center

Tract 16969

Client: Aliso Viejo CA
Contact: John Whitman
949-425-2500

TRACT 16969, A golf course and residential development project
100-acre, 320-lot single family and 187-unit multi-family residential development project. This project also included a golf course club house, a neighborhood park, a tot lot, and a 1.5-acre recreation area utilizing the retention basin.

Responsibility: Performed review of hydrology study, hydraulics, rough grading plans, precise grading plans, street improvement plans, storm drain plans, and erosion control plans

Jess Ranch

Client: Apple Valley CA
Contact: Brad Miller
760-240-7000

Jess Ranch Market Place (AT BEAR VALLEY ROAD AND JESS RANCH PKWY)

Responsibility: Performed review of hydrology study, hydraulics, rough grading plans, precise grading plans, street improvement plans, storm drain plans, SWPPP, and erosion control plans for this 36-acre commercial development project.

Adobe Road Improvement

Client: Mission Viejo CA
Contact: Chuck Wilson
949-470-3000

Adobe Road Improvement- This project is a 3-mile street widening and reconstruction project, which included pulverization, removal, reconstruction of pavement, curb and gutter, drainage facilities, drywells, and traffic striping and signage.

Responsibility: included providing preliminary investigation, improvement plan review, and construction documentation.

SAMPLE PROJECTS ENGINEERING / PUBLIC WORKS

City of Apple Valley:

Client: Apple Valley CA
Contact: Brad Miller
760-240-7000

Navajo Road Widening – The scope of our services for the Town of Apple Valley included providing preliminary investigation, field reviews, improvement plan review, and construction documentation. This project is a 4-mile street widening and reconstruction project, which included pulverization, removal, reconstruction of pavement, drainage facilities, drywells, and traffic striping and signage.

Twentynine Palms:

Client: 29Palms CA
Contact Richard Pedersen
760-367-6799

Adobe Road Improvements- The scope of our services for the City of Twentynine Palms included providing preliminary investigation, improvement plan review, and construction documentation. This project is a 3-mile street widening and reconstruction project, which included pulverization, removal, reconstruction of pavement, curb and gutter, drainage facilities, drywells, and traffic striping and signage

Tracts 15879,80,83,85,86

Client: Yucaipa CA
Contact: Ray Casey
909-797-2489

TRACT 15879,15880,15883,15885 &15886 Subdivision Development Projects – Performed review of rough grading plans, precise grading plans, street improvement plans, storm drain plans, erosion control plans, SWPPP for single family residential development project. This project also included Chapman heights elementary school.

Low Water Crossings

Client: Yucaipa CA
Contact: Ray Casey
909-797-2489

SIX LOW WATER CROSSINGS

The City constructed six low water crossings throughout the City to deal with street crossings that had long histories of flooding. The CAA team provided design review, managed the project, inspected the project, and worked with the funding process of the project.

Detention Facilities

Client: Yucaipa CA
Contact: Ray Casey
909-797-2489

Three Large Detention projects- with walking trails and site lookout facilities

Responsibility: Performed review of hydrology study, hydraulics, rough grading plans, precise grading plans, participated in the design changes

The Projects listed above are just a few projects picked out to demonstrate the types of project the team has had experience with. These types of projects can be repeated numerous times in various client cities in various topographic, geologic, and climatic areas and regions. Numerous other responsibilities have been performed by the team, from Map checking, to Tract Map processing, right-of-way acquisitions, lot line adjustments, easements and dedications, grant writing and a host of other responsibilities familiar to City Engineering and Public Works functions. I believe you will find the team has just the experience that you require to assist the City in its City Engineering and Public Works endeavors. Other Projects can be provided upon request.

Attachment 4
Rate Sheets

STANDARD HOURLY RATE SCHEDULE
Effective July 1, 2010

<u>CLASSIFICATION</u>	<u>HOURLY RATES</u>	<u>CLASSIFICATION</u>	<u>HOURLY RATES</u>
Principal Engineer	175.00	Principal Building Official	145.00
City Engineer	165.00	Building Official	122.00
Project Supervisor	145.00	Senior Building Inspector	110.00
Project Manager	135.00	Building Plan Checker	97.00
Project Engineer	130.00	Building Inspector/Plan Checker	90.00
Sr. Registered Engineer	125.00	Code Enforcement Officer	75.00
Senior Design Engineer	115.00	Permit Specialist	66.00
Associate Engineer	110.00		
Assistant/Design Engineer	98.00	Community Development Director	145.00
		Principal Planner	132.00
Senior Traffic Engineer/Manager	150.00	Senior Planner	107.00
Transportation Planner	110.00	Associate Planner	97.00
Traffic Engineer Associate	95.00	Planning Technician	68.00
Sr. Draftsperson (CADD)	90.00	Landscape Director	116.00
Draftsperson (CADD)	80.00	Associate Landscape Architect	95.00
Computer Technician	80.00	City Forester	88.00
Senior Public Works Inspector	95.00	Expert Witness Services	200.00
Public Works Inspector	87.00	Senior Contract Administrator	107.00
3-Person Survey Crew	270.00	Administrative Assistant	57.00
2-Person Survey Crew	210.00	Word Processor	50.00
		Clerical	45.00

The above hourly rates include general and administrative overhead and fees and employee payroll burden.

The above hourly rates are subject to an annual adjustment based upon increases adopted by Charles Abbott Associates, Inc. as reflected in the Consumer Price Index (CPI).

SUMMARY

We are confident that our proposal and approach assures that the expectations of the City are met or exceeded. At the core of our approach is a sincere commitment to serve the City effectively by providing a project team that can integrate its knowledge with sound judgment. We are confident that the end products will serve the City very effectively.

CITY COUNCIL AGENDA

Date: October 13, 2015 (continued to 10/27/15 Council Meeting)
TO: Banning Utility Authority
FROM: Art Vela, Acting Director of Public Works
SUBJECT: Resolution No. 2015-14UA, "Approval to Join the Santa Ana Watershed Project Authority Basin Monitoring Program Task Force"

RECOMMENDATION: Adopt Resolution 2015-14UA:

- I. Approving the City to Join the Santa Ana Watershed Project Authority Basin Monitoring Program Task Force ("BMPTF") and allowing the Mayor to execute Amendment No. 2 (Exhibit "A") to the BMPTF agreement.
- II. Authorizing the Administrative Services Director to make the necessary budget adjustments and appropriations related to Resolution 2015-14UA.

JUSTIFICATION: The City of Banning is required to be in compliance with the requirements of the Water Quality Control Plan for the Santa Ana River Basin ("Basin Plan"), which can be achieved by joining the BMPTF.

BACKGROUND: On January 22, 2004, the California Regional Water Quality Control Board, Santa Ana Region ("Regional Board") adopted Resolution No. R8-2004-0001, amending the Basin Plan incorporating an updated Total Dissolved Solids ("TDS") and Nitrogen Management Plan for the Santa Ana Region, updated groundwater subbasins and revised TDS and nitrogen wasteload allocations. The 2004 Basin Plan included anti-degradation water quality objectives which restrict the use of recycle water for irrigation and/or groundwater recharge for certain groundwater management zones including the Beaumont Management Zone ("BMZ").

On September 13, 2010 the Beaumont Cherry Valley Water District, the City of Beaumont and the Yucaipa Valley Water District was issued, by the Regional Board, an *Order Pursuant to Water Code Section 132674 for Technical Reports to Support the Implementation of the Maximum Benefit Objectives for TDS and Nitrate-Nitrogen in the BMZ* ("Order"). The City of Banning, in anticipation of its plans to use recycled water over the BMZ, participated in the preparation of the reports and has been identified as a responsible agency. Participation by the City of Banning in this process ensures that the City will be covered under the updated maximum benefit implementation plan for the BMZ.

On July 10, 2012, City Council approved Resolution No. 2012-10UA, "Authorizing the Implementation of the Regional Maximum Benefit Objectives in the Beaumont Management Zone", attached as Exhibit "B".

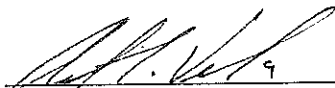
On April 25, 2014 the Santa Ana Regional Water Quality Control Board approved Resolution No. R8-2014-0005, attached as Exhibit "C", amending the Basin Plan to incorporate updated

requirements for the implementation of the BMZ maximum benefit program. Resolution No. R8-2014-0005 was subsequently approved by the State Water Resources Control Board and the California Office of Administrative Law and therefore is in full effect. The new amendment identifies maximum benefit commitments required of the responsible agencies (City of Beaumont, Yucaipa Valley Water District, City of Banning, Beaumont Cherry Valley Water District and San Geronio Pass Water Agency). As part of the commitments the responsible agencies are to determine ambient TDS and nitrate-nitrogen quality of the BMZ every three years (due July 1, 2017) using consistent methods and procedures, as is currently being done by the BMPTF. The BMPTF determination program was reviewed and approved by the Regional Board.

The BMPTF, currently made up of 19 water resource agencies, was formed to oversee and conduct the necessary studies for the Basin Monitoring Program as defined in the Basin Plan, see August 10, 2004 agreement attached as Exhibit "D". The benefits of joining the BMPTF would include: potential cost savings as compared to developing independent studies; consistency in the methodology used to develop the studies; and compliance with the requirements of the Basin Plan.

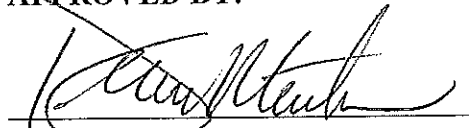
FISCAL DATA: The City of Banning's annual share of the BMPTF expenses is equal to \$13,924.00. An appropriation is required from the Water Fund to Account No. 660-6300-471.41-04 (Licenses, Permits, Fees), which will be used to fund the expense. This amount will be included in future budgets.

RECOMMENDED BY:



Art Vela
Acting Director of Public Works

APPROVED BY:



Dean Martin
Interim City Manager

Attachment:

1. Exhibit "A": Amendment No.2 to the BMPTF Agreement
2. Exhibit "B": Resolution No. 2012-10UA
3. Exhibit "C": Santa Ana Regional Water Quality Control Board approved Resolution No. R8-2014-0005
4. Exhibit "D": BMPTF Agreement

RESOLUTION NO. 2015-14UA

RESOLUTION NO. 2015-14UA, "APPROVAL TO JOIN THE SANTA ANA WATERSHED PROJECT AUTHORITY BASIN MONITORING PROGRAM TASK FORCE"

WHEREAS, on January 22, 2004, the California Regional Water Quality Control Board, Santa Ana Region ("Regional Board") adopted Resolution No. R8-2004-0001, amending the Basin Plan incorporating an updated Total Dissolved Solids ("TDS") and Nitrogen Management Plan for the Santa Ana Region, updated groundwater subbasins and revised TDS; and

WHEREAS, on September 13, 2010 the Beaumont Cherry Valley Water District, the City of Beaumont and the Yucaipa Valley Water District was issued, by the Regional Board, an *Order Pursuant to Water Code Section 132674 for Technical Reports to Support the Implementation of the Maximum Benefit Objectives for TDS and Nitrate-Nitrogen in the BMZ*; and

WHEREAS, the City of Banning, in anticipation of its plans to use recycled water over the Beaumont Management Zone ("BMZ"), participated in the preparation of the reports, has been identified as a responsible agency and in doing so ensures that the City will be covered under the updated maximum benefit implementation plan for the BMZ; and

WHEREAS, on July 10, 2012, City Council approved Resolution No. 2012-10UA, "Authorizing the Implementation of the Regional Maximum Benefit Objectives in the Beaumont Management Zone"; and

WHEREAS, on April 25, 2014 the Regional Board approved Resolution No. R8-2014-0005 amending the Water Quality Control Plan for the Santa Ana River Basin ("Basin Plan") to incorporate updated requirements for the implementation of the BMZ maximum benefit program including maximum benefit commitments required of the BMZ responsible agencies (City of Beaumont, Yucaipa Valley Water District, City of Banning, Beaumont Cherry Valley Water District, and San Geronio Pass Water Agency); and

WHEREAS, as part of the commitments the responsible agencies are to determine ambient TDS and nitrate-nitrogen quality of the BMZ every three years (due July 1, 2017) using consistent methods and procedures, as is currently being done by the Santa Ana Watershed Project Authority Basin Monitoring Program Task Force ("BMPTF"); and

WHEREAS, the BMPTF, currently made up of 19 water resource agencies, was formed to oversee and conduct the necessary studies for the Basin Monitoring Program as defined in the Basin Plan and benefits of joining the BMPTF would include: potential cost savings as compared to developing independent studies; consistency in the methodology used to develop the studies; and compliance with the requirements of the Basin Plan; and

WHEREAS, the City of Banning's annual share of the BMPTF expenses is equal to \$13,924.00.

NOW, THEREFORE, BE IT RESOLVED, the City Council of the City of Banning as follows:

SECTION 1. City Council adopts Resolution 2015-14UA approving the City to Join the Santa Ana Watershed Project Authority Basin Monitoring Program Task Force and allowing the Mayor to execute Amendment No. 2 (Exhibit "A") to the BMPTF agreement

SECTION 2. The Administrative Services Director is authorized to make the necessary budget adjustments, transfers and appropriations related to this resolution.

PASSED, APPROVED, AND ADOPTED this 13th day of October, 2015.

Deborah Franklin, Chairman
Banning Utility Authority

ATTEST:

Marie A. Calderon, Secretary

**APPROVED AS TO FORM AND
LEGAL CONTENT:**

David J. Aleshire, Authority Counsel
Aleshire & Wynder, LLP

CERTIFICATION:

I, Marie Calderon, Secretary to the Utility Authority of the City of Banning, California, do hereby certify that the foregoing Resolution No. 2015-14UA, was duly adopted by the Banning Utility Authority of the City of Banning at its Joint Meeting thereof held on the 13th day of October, 2015, by the following vote, to wit:

AYES:

NOES:

ABSTAIN:

ABSENT:

Marie A. Calderon, Secretary
Banning Utility Authority

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Attachment 1: Exhibit “A”

Amendment to the BMPTF Agreement

AMENDMENT NO. 2
TO
AGREEMENT TO FORM A TASK FORCE
TO CONDUCT A BASIN MONITORING PROGRAM FOR
NITROGEN AND TOTAL DISSOLVED SOLIDS
IN THE SANTA ANA RIVER WATERSHED
(BASIN MONITORING PROGRAM)

Pursuant to Covenants, Paragraph II.3b. of that certain AGREEMENT entitled, "Agreement to Form a Task Force to Conduct a Basin Monitoring Program for Nitrogen and Total Dissolved Solids in the Santa Ana River Watershed" (Basin Monitoring Program), dated August 10, 2004, the TASK FORCE AGENCIES hereby agree to make the following changes:

- I. Add Additional Agencies to the Task Force as follows, subject to the financial contributions as defined in the Basin Monitoring Program Task Force Agreement:
1. City of Banning
 2. Beaumont Cherry Valley Water District
 3. San Bernardino Valley Municipal Water District
 4. San Geronio Pass Water Agency

Except as otherwise expressly amended herein, all of the terms, conditions, and provisions of the Task Force Agreement and as amended under Amendment No. 1, shall continue in full force and effect, and the Additional Agencies agree to comply with and be bound thereto. **Exhibit A –** FY 2015-16 defines the initial contribution of the additional agencies.

This Amendment No. 2 may be executed in original counterparts, which together shall constitute a single agreement document.

IN WITNESS WHEREOF, the parties hereto have executed this *Amendment No. 2 to the Agreement to Form the Basin Monitoring Program Task Force*, on the dates set forth below.

CITY OF BANNING

BY _____
Mayor Date

BY _____
City Clerk Date

BEAUMONT CHERRY VALLEY WATER DISTRICT

BY _____
President Date

BY _____
Secretary-Treasurer Date

IN WITNESS WHEREOF, the parties hereto have executed this *Amendment No. 2 to the Agreement to Form the Basin Monitoring Program Task Force*, on the dates set forth below.

CITY OF BEAUMONT

BY: _____
Mayor Date

BY: _____
City Clerk Date

CHINO BASIN WATERMASTER

BY _____
President Date

BY _____
Secretary Date

**COLTON/SAN BERNARDINO REGIONAL TERTIARY TREATMENT AND
WATER RECLAMATION AUTHORITY**

BY _____
President Date

BY _____
Secretary Date

CITY OF CORONA

BY _____
DWP General Manager Date

BY _____
City Clerk Date

IN WITNESS WHEREOF, the parties hereto have executed this *Amendment No. 2 to the Agreement to Form the Basin Monitoring Program Task Force*, on the dates set forth below.

EASTERN MUNICIPAL WATER DISTRICT

BY _____
President Date

BY _____
Secretary-Treasurer Date

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

BY _____
President Date

BY _____
Clerk of the Board Date

INLAND EMPIRE UTILITIES AGENCY

BY _____
President Date

BY _____
Secretary-Treasurer Date

IRVINE RANCH WATER DISTRICT

BY _____
President Date

BY _____
Secretary-Treasurer Date

IN WITNESS WHEREOF, the parties hereto have executed this *Amendment No. 2 to the Agreement to Form the Basin Monitoring Program Task Force*, on the dates set forth below.

JURUPA COMMUNITY SERVICES DISTRICT

BY _____
President, Board of Directors Date

LEE LAKE WATER DISTRICT

BY _____
President Date

BY _____
General Manager Date

ORANGE COUNTY WATER DISTRICT

BY _____
President Date

BY _____
General Manager Date

CITY OF REDLANDS

BY _____
Mayor Date

By _____
City Clerk Date

IN WITNESS WHEREOF, the parties hereto have executed this *Amendment No. 2 to the Agreement to Form the Basin Monitoring Program Task Force*, on the dates set forth below.

CITY OF RIALTO

BY _____
Mayor Date

BY _____
City Clerk Date

CITY OF RIVERSIDE

BY _____
Mayor Date

BY _____
City Clerk Date

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT

BY _____
President Date

BY _____
Secretary-Treasurer Date

SAN GORGONIO PASS WATER AGENCY

BY _____
Commission Chair Date

BY _____
Secretary-Treasurer Date

IN WITNESS WHEREOF, the parties hereto have executed this *Amendment No. 2 to the Agreement to Form the Basin Monitoring Program Task Force*, on the dates set forth below.

SANTA ANA WATERSHED PROJECT AUTHORITY

BY _____
Commission Chair Date

BY _____
Secretary-Treasurer Date

WESTERN RIVERSIDE COUNTY REGIONAL WASTEWATER AUTHORITY

BY _____
Chair Date

BY _____
Secretary-Treasurer Date

YUCAIPA VALLEY WATER DISTRICT

BY _____
President, Board of Directors Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, SANTA ANA REGION

BY _____
Executive Officer Date

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Attachment 2: Exhibit “B”

Resolution No. 2012-10UA

RESOLUTION NO. 2012-10 UA

A RESOLUTION OF THE BANNING UTILITY AUTHORITY OF THE CITY OF BANNING, CALIFORNIA, "AUTHORIZING THE IMPLEMENTATION OF THE REGIONAL MAXIMUM BENEFIT OBJECTIVES IN THE BEAUMONT MANAGEMENT ZONE"

WHEREAS, the California Regional Water Quality Control Board, Santa Ana Region ("Regional Board") is charged with maintaining water quality in local groundwater basins, including the Beaumont Management Zone (BMZ); and

WHEREAS, on January 22, 2004, the Regional Board amended the Water Quality Control Plan for the Santa Ana River Basin ("Basin Plan") incorporating an updated Total Dissolved Solids ("TDS") and Nitrogen Management Plan for the Santa Ana Region, updated groundwater subbasins, revised TDS and nitrogen wasteload allocations; and

WHEREAS, the City of Banning participated in the preparation and subsequent submittal of a draft plan entitled "Proposed Regional Implementation of Maximum Benefit Commitments for the BMZ" ("Regional Plan"); and

WHEREAS, on January 23, 2012, the Regional Board sent correspondence confirming that the proposed Regional Plan provided reasonable assurances for the protection of water quality and beneficial use within the BMZ and will maintain maximum benefit water quality objectives of participating agencies pursuant to the Basin Plan adopted by the Regional Board on January 22, 2004.

NOW, THEREFORE, BE IT RESOLVED by the Utility Authority of the City of Banning as follows:

SECTION 1. The Banning Utility Authority adopts Resolution No. 2012-10 UA "Authorizing the Implementation of the Regional Maximum Benefit Objectives in the Beaumont Management Zone."

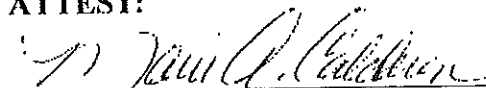
SECTION 2. The City Manager is authorized to finalize and execute the Regional Plan and submit it to the Regional Board.

PASSED, APPROVED and ADOPTED this 10th day of July, 2012.



Don Robinson, Chairman
Banning Utility Authority

ATTEST:



Marie A. Calderon, Secretary
Banning Utility Authority

CERTIFICATION:

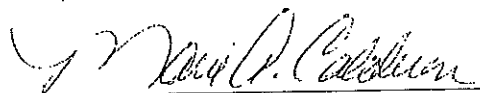
I, Marie A. Calderon, Secretary of the Banning Utility Authority of the City of Banning, California, do hereby certify that the foregoing Resolution No. 2012-10 UA, was duly adopted by the Banning Utility Authority of the City of Banning, California, at a regular meeting thereof held on the 10th day of July, 2012 by the following vote, to wit:

AYES: Councilmembers Botts, Franklin, Hanna, Machisic, Mayor Robinson

NOES: None

ABSENT: None

ABSTAIN: None



Marie A. Calderon, Secretary
Banning Utility Authority
City of Banning, California

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Attachment 3: Exhibit “C”

**Santa Ana Regional Water Quality Control Board Resolution No.
R8-2014-0005**

California Regional Water Quality Control Board
Santa Ana Region

RESOLUTION NO. R8-2014-0005

Resolution Amending the Water Quality Control Plan for the Santa Ana River Basin to Incorporate Updates Related to the Salt Management Plan for the Santa Ana Region

WHEREAS, the California Regional Water Quality Control Board - Santa Ana Region (hereinafter Regional Board), finds that:

1. An updated Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) was adopted by the Regional Board on March 11, 1994, approved by the State Water Resources Control Board (SWRCB) on July 21, 1994, and approved by the Office of Administrative Law (OAL) on January 24, 1995.
2. The Basin Plan identifies the Region's ground and surface waters, designates beneficial uses for those waters, establishes water quality objectives for the protection of those uses, prescribes implementation plans and establishes monitoring and surveillance programs to assess implementation efforts.
3. Section 303(c) of the federal Clean Water Act requires that water quality standards be reviewed on a triennial basis and revised, if appropriate. California Water Code section 13240 provides that Basin Plans must be periodically reviewed and may be revised. The intent of this review is to ensure consideration of the best available science and new data and information.
4. California Water Code section 13140 provides that the State Water Resources Control Board (State Water Board) shall formulate and adopt state policy for water quality control that has statewide applicability.
5. On June 19, 2012, the State Water Board adopted the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy). The OWTS Policy includes a conditional waiver of the requirements to submit a report of waste discharge, obtain waste discharge requirements, and pay fees for discharges from onsite wastewater systems covered by the OWTS Policy. The OWTS Policy was approved by the Office of Administrative Law on November 13, 2012, and became effective on May 13, 2013. The OWTS Policy is applicable statewide.
6. Amendments to the Basin Plan to incorporate a revised Total Dissolved Solids and Nitrogen Management Plan (Salt Management Plan) into the 1995 Basin Plan were approved by the Regional Board on January 22, 2004, by the State Water Resources Control Board on October 1, 2004 and by the Office of Administrative Law on December 23, 2004. The surface water standards provisions of the amendments were approved by the U.S. Environmental Protection Agency on January 20, 2007.
7. The Basin Plan needs to be amended to incorporate the OWTS Policy by reference and to revise the minimum lot size criteria applicable to on-site wastewater treatment systems consistent with the OWTS Policy.
8. A Substitute Environmental Document (SED) was prepared by the State Water Board for the OWTS Policy in accordance with the Water Board's certified regulatory program (Cal.

Code Regs., tit. 23 §§3777-3781). The State Water Board approved the OWTS Policy and the SED on June 19, 2012. The proposed amendment to the Santa Ana Region Basin Plan removes existing Basin Plan provisions regulating onsite systems and incorporates the OWTS Policy. No substantive changes or modifications to the previously approved OWTS Policy are proposed, no substantial changes with respect to circumstances under which the OWTS Policy will be undertaken have occurred and no new information triggers the need for supplemental or subsequent CEQA analysis.

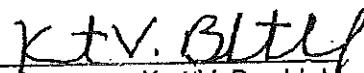
9. This amendment to incorporate the OWTS Policy is completely within the scope of the OWTS Policy as analyzed by the State Water Board in the SED. As such, the recommended actions do not require further environmental review pursuant to the certified regulatory program or CEQA (Pub. Res. Code §21166; Cal. Code Regs. tit. 14, §§15161, 15163).
10. The Salt Management Plan is also amended to recognize the hydrogeological boundary for Yucaipa/Beaumont Plains Management Zones that differs from the legal boundary; to update the Basin Plan language related to the groundwater management zone ambient TDS and nitrate-nitrogen determination; to incorporate a nitrogen loss coefficient for the San Jacinto area groundwater management zones; to update the descriptive language relating to wastewater reclamation; and, to revise the Yucaipa, Beaumont and San Timoteo Management Zones "Maximum Benefit" Programs.
11. Extensive analysis of the Salt Management Plan pursuant to the California Environmental Quality Act (CEQA) was conducted as part of the consideration of that Plan in 2004. This analyses was reviewed for the proposed amendments. An Environmental Checklist was prepared. The proposed changes to the Salt Management Plan would not modify the findings of the prior CEQA analyses, *i.e.*, that potential environmental effects would be less than significant.
12. The proposed amendments do not revise or adopt water quality objectives and, therefore, the Regional Board is not required to consider the factors set forth in Water Code section 13241.
13. The proposed amendments do not contain new scientific elements requiring an independent, external scientific peer review pursuant to Health and Safety Code 57004. Such separate scientific reviews were conducted previously for the OWTS Policy and for the Salt Management Plan provisions.
14. The proposed amendments are consistent with the State's antidegradation policy, State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California". None of the proposed amendments is expected to result in the lowering of water quality. Thus, the proposed amendments conform to the antidegradation policy requirements.
15. The proposed amendments meet the "Necessity" standard of the Administrative Procedure Act, Government Code, Section 11352, subdivision (b). The proposed amendments are required to fulfill the Regional Board's obligation pursuant to the California Water Code to exercise its full power and jurisdiction to protect the quality of waters in the state, including the duties to establish water quality objectives for the reasonable protection of beneficial uses and to identify a program of implementation, including monitoring, needed to achieve those objectives.

16. The Regional Board prepared and distributed a written report (staff report) describing the proposed Basin Plan amendments and the rationale supporting each amendment in accordance with applicable state environmental regulations (Calif. Code of Regulations, Title 23, Section 3775 et seq.,).
17. On January 31, 2014, the Regional Board held a Public Hearing to consider the proposed Basin Plan amendments. The Public Hearing was continued to the April 25, 2014 Regional Board meeting. Notice of the Public Hearing was sent to all interested persons and published in accordance with Section 13244 of the California Water Code. The Regional Board considered all testimony offered at the hearing and other written comments submitted by the public before taking any final action.
18. The Basin Plan amendments must be submitted for review and approval by the State Water Resources Control Board (SWRCB), and the Office of Administrative Law (OAL). The surface water components must be approved by USEPA. Once approved by the SWRCB, the amendments are submitted to OAL. The Basin Plan amendments will generally become effective upon approval by OAL; the surface water components become effective upon approval by USEPA. A Notice of Decision will be filed.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. Pursuant to Sections 13240 et seq. of the California Water Code, the Regional Board, after considering the entire record, including all testimony provided at the public hearing, adopts the amendments to the Water Quality Control Plan for the Santa Ana River Basin as set forth in the Attachment to this Resolution.
2. The Executive Officer is directed to forward copies of the Basin Plan amendments to the SWRCB in accordance with the requirements of Section 13245 of the California Water Code.
3. The Regional Board requests that the SWRCB approve the Basin Plan amendments in accordance with the requirements of Sections 13245 and 13246 of the California Water Code and, thereafter, forward the amendments to the OAL and the USEPA for their approval.
4. If during its approval process the SWRCB or OAL determine that minor, non-substantive corrections to the language of the amendments are needed for clarity or consistency, the Executive Officer may make such changes and shall inform the Regional Board forthwith.
5. The Executive Officer is authorized to transmit payment of the applicable fee as required by the California Department of Fish and Wildlife.

I, Kurt V. Berchtold, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of a resolution adopted by the California Regional Water Quality Control Board – Santa Ana Region on April 25, 2014.



Kurt V. Berchtold
Executive Officer

ATTACHMENT TO RESOLUTION NO. R8-2014-0005

(Proposed Basin Plan amendments changes are shown as ~~strikeout~~ for deletions and underline for additions

Chapter 2, Plans and Policies

Page 2-4, Insert under “State Board Policies”:

- New and/or revised Statewide Plans and Policies are posted on the State Water Resources Control Board’s website at the following link:

http://www.waterboards.ca.gov/plans_policies/

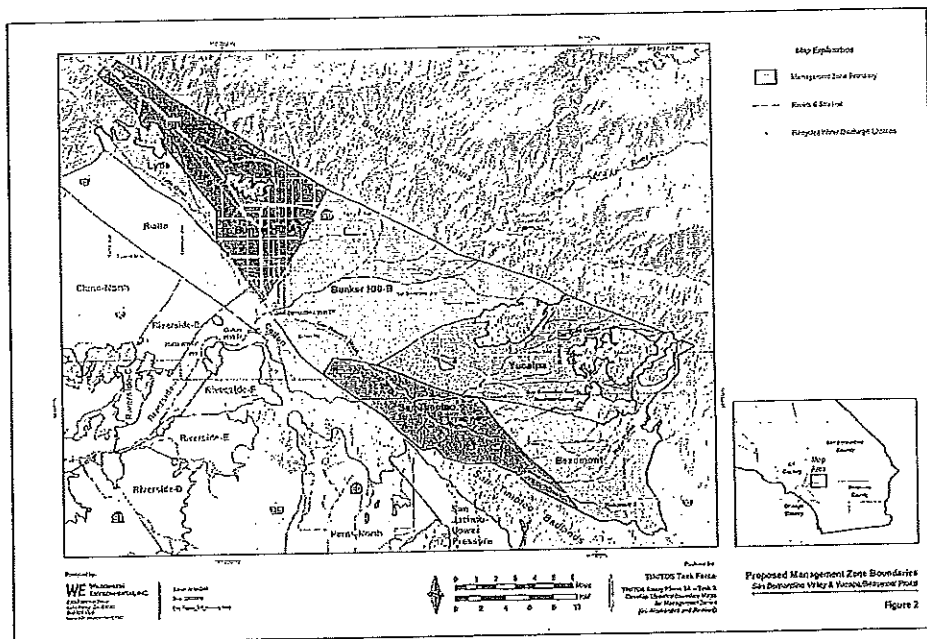
- **Policy on Onsite Wastewater Treatment Systems (Resolution No. 2012-0032, adopted by the State Water Resources Control Board on June 19, 2012)**

This Policy (OWTS Policy) regulates the siting, design, operation, and maintenance of onsite wastewater treatment systems. The Policy implements the California Water Code, Chapter 4.5, Division 7, § 13290-13291.7 by establishing statewide regulations and standards for permitting onsite wastewater systems. The OWTS Policy specifies criteria for existing, new and replacement onsite systems and establishes a conditional waiver of waste discharge requirements for onsite systems that comply with the Policy.

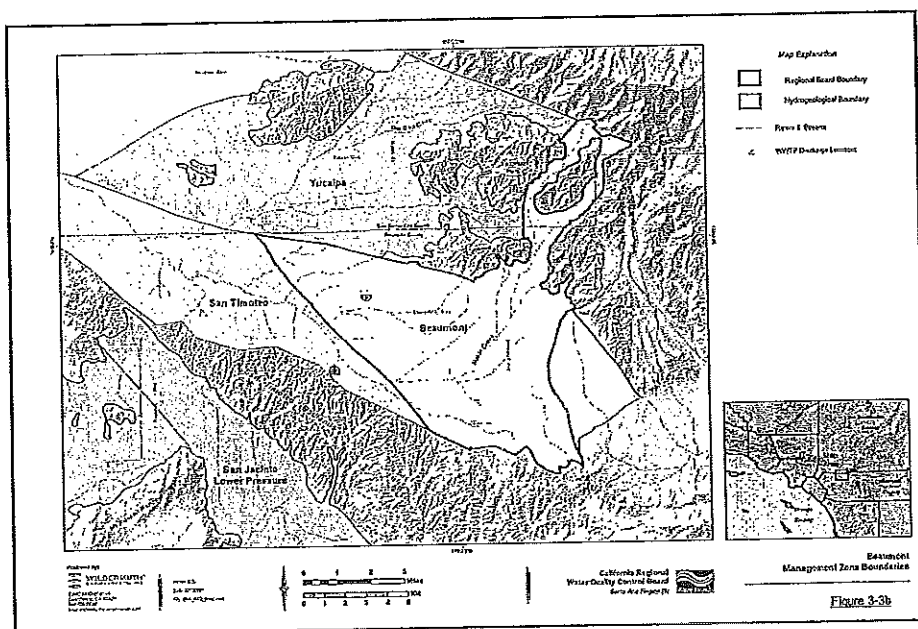
Chapter 3, "Beneficial Uses"

Page 3-12, Figure 3-3; Management Zone Boundaries – San Bernardino Valley and Yucaipa/Beaumont Plains

- Re-number Figure as Figure 3-3a – Legal Boundary



- Number new map as Figure 3-3b – Beaumont Management Zone



- Add the following footnote to the map

The eastern-most boundary of the Beaumont Management Zone is defined by the jurisdictional boundary, established in the California Water Code, between the Santa Ana Regional Water Board (Santa Ana Water Board) and the Colorado River Regional Water Board (Colorado Water Board). This legal boundary separates the two regions based on topography and surface water drainage. However, with respect to groundwater flow and quality, hydrogeological and water quality data indicate that the Beaumont groundwater management zone actually extends to the east of the current legal boundary, into the jurisdictional domain of the Colorado Water Board. The Santa Ana and Colorado Water Boards will work together to coordinate regulatory actions for discharges that occur in this area of the management zone.

Chapter 5, "Implementation"

Page 5-17ff

II.B.1. Salt Assimilative Capacity

Some waters in the Region have assimilative capacity for additions of TDS and/or nitrogen; that is, wastewaters with higher TDS/nitrogen concentrations than the receiving waters are diluted sufficiently by natural processes, including rainfall or recharge, such that the TDS and nitrogen objectives of the receiving waters are met. The amount of assimilative capacity, if any, varies depending on the individual characteristics of the waterbody in question and must be reevaluated over time.

The 2004 adoption of new groundwater management zone boundaries (Chapter 3) and new TDS and nitrate-nitrogen objectives for these management zones (Chapter 4), pursuant to the work of the Nitrogen/TDS Task Force, necessitated the re-evaluation of the assimilative capacity findings initially incorporated in the 1995 Basin Plan. To conduct this assessment, the Nitrogen-TDS study consultant calculated current ambient TDS and nitrate-nitrogen water quality using the same methods and protocols as were used in the calculation of historical ambient quality (see Chapter 4). The analysis focused on representing current water quality as a 20-year average for the period from 1978 through 1997. [Ref. 1]. For each management zone, current TDS and nitrate-nitrogen water quality were compared to water quality objectives (historical water quality)¹. Assimilative capacity was also assessed relative to the "maximum benefit" objectives established for certain management zones. If the current quality of a management zone is the same as or poorer than the specified water quality objectives, then that management zone does not have assimilative capacity. If the current quality is better than the specified water quality objectives, then that management zone has assimilative capacity. The difference between the objectives and current quality is the amount of assimilative capacity available.

Since adoption of the 2004 Basin Plan amendment and per Basin Plan requirements, ambient quality and assimilative capacity findings have been, and will continue to be, updated every

¹ As noted in Chapter 4, ammonia-nitrogen and nitrite-nitrogen data were also included in the analysis, where available. This occurred for a very limited number of cases and ammonia-nitrogen and nitrite-nitrogen concentrations were insignificant.

three years. The updated findings of ambient quality and assimilative capacity will be posted on the Regional Board's web-site and will be used for regulatory purposes.

~~Tables 5-3 and 5-4 show the water quality objectives and ambient quality for TDS and nitrate-nitrogen, respectively, for each management zone. These tables also list the TDS and nitrate-nitrogen assimilative capacity of the management zones, if any. Of the thirty-seven (37) management zones, twenty-seven (27) lack assimilative capacity for TDS, and thirty (30) lack assimilative capacity for nitrate-nitrogen (this assumes the "maximum benefit" objectives are in effect). five (5) management zones for which there were insufficient data to calculate TDS and/or nitrate-nitrogen water quality objectives and, therefore, assimilative capacity. For regulatory purposes, these 5 management zones are assumed to have no assimilative capacity. Dischargers to these management zones may demonstrate that assimilative capacity for TDS and/or nitrate-nitrogen is available. If the Regional Board approves this demonstration, then the discharger would be regulated accordingly.~~

- ~~As indicated in Table 5-3, it will be assumed for most regulatory purposes that there is no assimilative capacity for TDS in the Orange County groundwater management zone. The 20 mg/L of management zone-wide TDS assimilative capacity calculated for this zone will be allocated to discharges resulting from groundwater remediation and other legacy contaminant removal projects implemented within the Orange County Management Zone.~~

[section discussion continues with no further revisions]

Table 5-3
Total Dissolved Solids (TDS) Assimilative Capacity Findings

Management Zone	Water Quality Objective (mg/L)	Current Ambient (mg/L)	Assimilative Capacity (mg/L)
UPPER SANTA ANA RIVER BASIN			
Beaumont—"max benefit" ¹	330	290	40
Beaumont—"antideg"	230	290	None
Bunker Hill A	340	350	None
Bunker Hill B	330	260	70
Colton	440	430	None
Chino North—"max benefit"	420	300	120
Chino 1—"antideg"	280	340	None
Chino 2—"antideg"	250	300	None
Chino 3—"antideg"	260	280	None
Chino South	680	720	None
Chino East	730	760	None
Cucamonga—"max benefit" ³	380	260	120
Cucamonga—"anti-deg"	240	260	None
Lytte	260	240	20
Rialto	230	230	None
San Timoteo—"max benefit" ³	400	300	100
San Timoteo—"anti-deg"	300	300	None
Yucaipa—"max benefit" ³	370	330	40
Yucaipa—"antideg"	320	330	None
MIDDLE SANTA ANA RIVER BASIN			
Arlington	980	— ⁴	None
Bedford	— ⁴	— ⁴	None
Goldwater	380	380	None
Elsinore	480	480	None
Lee Lake	— ⁴	— ⁴	None
Riverside A	560	440	120
Riverside B	290	320	None
Riverside C	680	760	None
Riverside D	840	— ⁴	None
Riverside E	720	720	None
Riverside F	660	680	80
Temescal	770	780	None
Warm Springs	— ⁴	— ⁴	None
SAN JACINTO RIVER BASINS			
Canyon	230	220	40
Hemet South	730	4030	None
Lakeview—Hemet North	520	830	None
Menifee	4020	3360	None
Perris North	570	750	None
Perris South	1260	3490	None
San Jacinto Lower	520	730	None
San Jacinto Upper	320	370	None
LOWER SANTA ANA RIVER BASINS			
Irvine	940	940	None
La Habra	— ⁴	— ⁴	None
Orange County ²	580	560	None ²
Santiago	— ⁴	— ⁴	None

¹ Not enough data to estimate TDS concentrations; management zone is presumed to have no assimilative capacity. If assimilative capacity is demonstrated by an existing or proposed discharger, that discharge would be regulated accordingly.

² For the purposes of regulating discharges other than those associated with projects implemented within the Orange County Management Zone to facilitate remediation projects and/or to address legacy contamination, no assimilative capacity is assumed to exist.

³ Assimilative capacity created by "maximum benefit" objectives is allocated solely to agency(ies) responsible for "maximum benefit" implementation (see Section VI.).

Table 5-4
Nitrate-Nitrogen (NO₃-N) Assimilative Capacity Findings

Management Zone	Water Quality Objective (mg/L)	Current Ambient (mg/L)	Assimilative Capacity (mg/L)
UPPER SANTA ANA RIVER BASINS			
Beaumont – “max benefit” ³	5.0	2.6	2.4
Beaumont – “antideg”	1.5	2.6	None
Bunker Hill A	2.7	4.5	None
Bunker Hill B	7.3	5.6	1.8
Colton	2.7	2.9	None
Chino North – “max benefit” ³	5.0	7.4	None
Chino 1 – “antideg”	5.0	8.4	None
Chino 2 – “antideg”	2.9	7.2	None
Chino 3 – “antideg”	3.5	6.3	None
Chino South	4.2	8.8	None
Chino East	10	29.1	None
Cucamonga – “max benefit” ³	5.0	4.4	0.6
Cucamonga – “anti-deg”	2.4	4.4	None
Lytte	1.5	2.8	None
Rialto	2.0	2.7	None
San Timoteo – “max benefit” ³	5.0	2.9	2.1
San Timoteo – “anti deg”	2.7	2.9	None
Yucaipa – “max benefit” ³	5.0	5.2	None
Yucaipa – “antideg”	4.2	5.2	None
MIDDLE SANTA ANA RIVER BASINS			
Arlington	10.0	— ⁺	None
Bedford	— ⁺	— ⁺	None
Coldwater	1.5	2.6	None
Elsinore	1.0	2.6	None
Lee Lake	— ⁺	— ⁺	None
Riverside A	6.2	4.4	1.8
Riverside B	7.6	8.0	None
Riverside C	8.3	15.5	None
Riverside D	10.0	— ⁺	None
Riverside E	10.0	14.8	None
Riverside F	9.5	9.5	None
Temescal	10.0	13.2	None
Warm Springs	— ⁺	— ⁺	None
SAN JACINTO RIVER BASINS			
Canyon	2.5	1.6	0.9
Hemet South	4.1	5.2	None
Lakeview – Hemet North	1.8	2.7	None
Menifee	2.8	5.4	None
Perris North	5.2	4.7	0.5
Perris South	2.5	4.9	None
San Jacinto Lower	1.0	1.9	None
San Jacinto Upper	1.4	1.9	None
LOWER SANTA ANA RIVER BASINS			
Irvine	5.9	7.4	None
La Habra	— ⁺	— ⁺	None
Orange County	3.4	3.4	None
Santiago	— ⁺	— ⁺	None

⁺ Not enough data to estimate nitrate nitrogen concentrations

³ Assimilative capacity created by “maximum benefit” objectives is allocated solely to agency(ies) responsible for “maximum benefit” implementation (see Section VI.).

Page 5-25ff**3. Nitrogen Loss Coefficient**

The City of Riverside also presented data to the Task Force regarding nitrogen transformation and losses associated with wetlands. These data support a nitrogen loss coefficient of 50%, rather than 25%, for the lower portions of Reach 3 of the Santa Ana River that overlie the Chino South groundwater management zone. [Ref. 9]. In fact, the data indicate that nitrogen losses from wetlands in this part of Reach 3 can be greater than 90%. However, given the limited database, the Task Force again recommended a conservative approach, i.e., 50% in this area, with confirmatory monitoring.

Eastern Municipal Water District also presented data that support a 60% nitrogen loss coefficient in the San Jacinto Basin [Ref 10F]. This 60% nitrogen loss is only applicable to discharges to the following management zones that overlie the San Jacinto Basin: Perris North, Perris South, San Jacinto Lower Pressure, San Jacinto Upper Pressure, Lakeview-Hemet North, Menifee, Canyon and Hemet South.

Page 5-34ff**5. Wastewater Reclamation**

Wastewater is presently being reclaimed in the Santa Ana Watershed in a number of different ways:

3. Groundwater Recharge by Percolation

This type of reclamation is common throughout the Region. Most wastewater treatment plants that do not discharge directly to the River discharge their effluent to percolation ponds. All of the treated wastewater in the upper Santa Ana Basin that is not directly reclaimed for commercial agricultural and landscape irrigation purposes, or discharged directly to the Santa Ana River, is returned to local or downstream groundwater management zones by percolation. In Orange County, reclaimed water is used for greenbelt and landscape irrigation, and injected into coastal aquifers to control sea water intrusion.

Significant additional reclamation activities are planned in the Region, as reflected in Table 5-7. The Chino Basin Watermaster, Inland Empire Utilities Agency, Yucaipa Valley Water District, the City of Beaumont and the San Timoteo Watershed Management Authority propose to implement extensive groundwater recharge projects using recycled water. To accommodate these projects and other water and wastewater management strategies, these agencies have made the requisite demonstrations necessary to support the "maximum benefit" TDS and nitrate-nitrogen water quality objectives specified in this Plan for certain groundwater management zones (see Chapter 4). The recharge projects will provide reliable sources of additional water supply needed to support expected development within the agencies' areas of jurisdiction. These agencies' "maximum benefit" programs are described in detail in Section VI. of this Chapter.

Significant additional reclamation activities are planned in the Region, as reflected in Table 5-

7. ~~The~~ Chino Basin Watermaster, Inland Empire Utilities Agency, Yucaipa Valley Water District, the City of Beaumont and the San Timoteo Watershed Management Authority City of Banning propose to implement extensive groundwater recharge projects using recycled water. To accommodate these projects and other water and wastewater management strategies, these agencies have made the requisite demonstrations necessary to support the "maximum benefit" TDS and nitrate-nitrogen water quality objectives specified in this Plan for certain groundwater management zones (see Chapter 4). The recharge projects will provide reliable sources of additional water supply needed to support expected development within the agencies' areas of jurisdiction. These agencies' "maximum benefit" programs are described in detail in Section VI. of this Chapter.

The Yucaipa Valley Regional Brine line and a reverse osmosis facility at the Water Purification Facility at the Water Purification Facility located at the Wochholz Regional Water Recycling Facility will facilitate groundwater replenishment reuse in the upper groundwater management zones of the Santa Ana Watershed. Treated wastewater will receive extensive advanced treatment, including microfiltration, reverse osmosis and disinfection using ultraviolet light. The recharge of recycled water will enhance both the quality of and quantity of groundwater resources, the major source of water supply in the area.

In Orange County, significant reclamation activities include the implementation of the Groundwater Replenishment System, a joint effort of the Orange County Water District and Orange County Sanitation District. Treated wastewater provided by the Sanitation District will receive extensive advanced treatment, including microfiltration, reverse osmosis, and disinfection using ultraviolet light and hydrogen peroxide. In the first phase of the project, approximately 70, 000 acre-feet per year of highly treated recycled water will be produced and distributed to groundwater recharge facilities and to injection wells used to maintain a seawater intrusion barrier. The System will enhance both the quality and quantity of groundwater resources, the major source of water supply in the area. It will reduce the need for imported water and prevent, or at least delay, the need for an additional ocean outfall for disposal of the wastewater treated by the Sanitation District. Implementation of the GWR System ~~will be phased. Operation of Phase 1 will begin~~ began in 20078. Future phases to expand the capacity of the GWR System are ~~possible~~ planned.

Table 5-7
Wastewater Reclamation

Subbasin (Management Zone) Receiving Reclaimed Water	Source	Amount AF/Y 2010-A ¹	Amount AF/Y 2010-B ²
Beaumont MZ	Beaumont, City of	250	1,500
Yucaipa MZ	Yucaipa Valley Water District	—	6,400
Bunker Hill B MZ	San Bernardino, City of and Colton, City of	117	26,200
Colton MZ	Rialto, City of	200	
Chino North MZ	IEUA RP-1	1,200	48,000
Chino North MZ	IEUA RP-2A	2,470	
Chino North MZ	IEUA RP-4	3,300	
Chino North MZ	California Institute for Men	650	650
Chino North MZ	Upland Golf Course	31	31
Temescal MZ	Corona, City of	1,000	3,100
	TOTAL	9,218	86,000

¹—wastewater reclamation assumed in 2010-A is the same as that assumed in the 1995 Basin Plan when approved in 1994/1995 (also known as Table 5-7)

²—wastewater reclamation assumed in 2010-B as identified by POTWs (see Ref. 3, 5).

Salt Management Plan (Chapter 5)

page 5-38ff

V. Other Projects and Programs

In addition to the regulatory efforts of the Regional Board described in the preceding section, water and wastewater purveyors and other parties in the watershed have implemented, and propose to implement, facilities and programs designed to address salt problems in the groundwater of the Region. These include the construction of brine lines, and groundwater desalters, recycled water demineralization systems, implementation of programs to enhance the recharge of high quality storm water and imported water, where available, and re-injection of recycled water to maintain salt water intrusion barriers in coastal areas. These projects and programs are motivated by the need to protect and augment water supplies, as well as to facilitate compliance with waste discharge requirements.

A. Brine Lines

There are two brine line systems in the Region, the Inland Empire Brine Line, formerly known as the Santa Ana Regional Interceptor (SARI), and the older Chino Basin Non-Reclaimable Line (NRL). These lines are used to transport brine wastes out of the basin for treatment and disposal to the ocean. They are a significant part of industrial waste management and essential for operation of desalters in the upper watersheds.

1. Inland Empire Brine Line

The SARI-Inland Empire Brine Line (Brine Line) was constructed and is owned by SAWPA. It is approximately 93 miles of 16 inch to 84 inch pipeline connected to the Orange County Sanitation District treatment facilities. SAWPA owns capacity rights in SARI downstream of Prado Dam. The line extends from the Orange County Line near Prado Dam northeast to the San Bernardino area. The Brine Line has been extended southerly to serve the San Jacinto Watershed. SARI Brine Line Reach 5 extends up the Temescal Canyon from the City of Corona to the Eastern Municipal Water District (EMWD) brine line terminus in the Lake Elsinore area. EMWD's Menifee Desalter and other high salinity discharges from EMWD and Western Municipal Water District now have access to the brine line.

The Brine Line, Reach IVE has been extended to the east about 15 miles from the City of San Bernardino to Yucaipa Water District's Wochholz Regional Water Recycling Facility. The Brine Line will be utilized by Yucaipa Valley Water District and the Mountainview Power Plant for brine disposal.

2. Chino Basin Non-Reclaimable Waste Line

The Chino Basin Non-Reclaimable Waste Line (NRWL) is connected to the Los Angeles County Sanitation District sewer system in the Pomona area. The NRWL, which is owned and operated by Inland Empire Utilities Agency, exports non-reclaimable industrial wastes and brine from the Chino Basin. It extends eastward from the Los Angeles County Line to the City of Fontana. It was originally built to serve industries including the Kaiser Steel Company and Southern California Edison Power Plants.

B. Groundwater Desalters

The studies leading to the development of the TDS/Nitrogen management plan included in this Basin Plan when it was approved in 1995 demonstrated that it was not realistic to achieve compliance with all the nitrogen and TDS objectives for the groundwater subbasins then identified within the Region. Long-term historic land use practices, particularly agriculture, have left an enormous legacy of salts that are now in the unsaturated soils overlying the groundwater subbasins (now, newly defined groundwater management zones). A significant amount of these salts will, over time, degrade groundwater quality. The programs of groundwater extraction, treatment, and replenishment needed to completely address these historic salt loads were shown to far exceed the resources available to implement them.

While the boundaries of the groundwater management zones have been revised and new TDS and nitrate-nitrogen water quality objectives established, the salt legacy problem remains. The construction and operation of groundwater desalters to extract and treat poor quality groundwater continues to be an essential component of salt management in the Region. Such projects will be increasingly important to protect local water supplies and to provide supplemental, reliable sources of potable supplies.

A number of groundwater desalters have already been constructed, and more are planned. These facilities are described below.

1. Upper Santa Ana Basin

In the Upper Santa Ana Basin, the Santa Ana Watershed Project Authority constructed and operates the Arlington desalter, which is now owned and operated by Western Municipal Water District. This desalter, with a capacity of about 7 MGD, treats water extracted from the Arlington Management Zone, which was heavily impacted by historic agricultural activities.

In the Chino Basin, the Chino Desalter Authority operates the Chino 1 desalter, which is planned for expansion from 8 MGD to 13 MGD capacity. Additional desalters and desalter capacity will be constructed as part of a "maximum benefit" proposal by the Chino Basin Watermaster and the Inland Empire Utilities Agency (see Section VI., Maximum Benefit Implementation Plans for Salt Management).

The City of Corona began operation of the Temescal desalter in late 2001 with product water. ~~The desalter has a capacity of 10 MGD. In 2004, the City is currently expanding~~ expanded the desalter plant capacity by adding a fourth train to increase the product water capacity by 5 MGD for a current total of 15 MGD. It is expected to be operational in early 2004. The product water is used to supplement current other municipal supplies as a blending source. The improved TDS quality of these supplies is an important part of the City's efforts to assure compliance with waste discharge requirements.

In the San Timoteo Watershed areas, desalters will be implemented as necessary for the Yucaipa and Beaumont areas, as discussed in detail in Section VI., Maximum Benefit San Timoteo Watershed Salt Management Plan.

2. San Jacinto Watershed

EMWD operates the Meniffee desalter, which has a capacity of about 3 MGD. Product water is

added to the EMWD municipal supply system, and the waste brine is discharged to a non-reclaimable waste disposal system that is ultimately connected to the SAWPA SARI system. The desalter extracts groundwater from the Perris South and Menifee Management Zones, both of which are adversely affected by historic salt loads contributed largely by agricultural activities.

EMWD plans to construct a desalter with capacity of about 4.5 MGD to treat poor quality water extracted from the Perris South and Lakeview/Hemet North Management Zones. The purpose of this facility is to stop subsurface migration of poor quality groundwater from the Perris South Management Zone into the Lakeview/Hemet North Management Zone.

3. Orange County

The Tustin Seventeenth Street Desalter Nitrate Removal project, which began operation in 1996 reduces high nitrate and TDS concentrations from groundwater pumped by Tustin's Seventeenth Street wells, adding approximately 3,000 acre-feet of water annually to Tustin's domestic water supply. A second facility, Tustin's Main Street Treatment Plant, began operating in 1989 with a yield of 2,000 acre-feet per year. The plant reduces nitrate levels from groundwater produced by Tustin's Main Street wells. Treatment systems employing reverse osmosis and ion exchange, are operating at two wells that had been shut down because of excessive nitrate concentrations. The Orange County Water District and Irvine Ranch Water District (IRWD) are moving forward with cooperated to build the Irvine Desalter, a dual-purpose regional groundwater remediation and water supply project located in the City of Irvine and its sphere of influence. The project consists of an extensive seven-well groundwater extraction and collection system, a treatment system, a five-mile brine disposal pipeline, a finished water delivery system, and ancillary facilities. While providing approximately 6,700 8,000 acre-feet per year to IRWD for potable and non-potable supply, the desalter will extracts and treats brackish groundwater and captures an overlapping regional plume of TCE-contaminated groundwater demonstrated to have originated from the former U.S. Marine Corps Air Station-El Toro.

C. Recharge of Stormwater Storm Water and/or Imported Water

The Orange County Water District, San Bernardino Valley Water Conservation District and other agencies in the Region operate extensive facilities designed to enhance the capture and recharge of high quality stormwater storm water. More such facilities are planned as part of "maximum benefit" proposals by the Chino Basin Watermaster/Inland Empire Utilities Agency, Yucaipa Valley Water District, San Timoteo Watershed Management Authority and the City of Beaumont and agencies implementing the maximum benefit programs in the San Timoteo watershed (Section VI., Maximum Benefit Implementation Plans for Salt Management). These proposals also include efforts to import and recharge high quality State Water Project water, when it is available. These activities increase both the quantity and quality of available groundwater resources.

D. Sea Water Intrusion Barriers

The Orange County Water District operates advanced facilities designed to provide significantly enhanced tertiary treatment of secondary treated municipal wastewater from the Orange County Sanitation District's (Sanitation District) Fountain Valley Reclamation Plant No. 1. The recycled water is injected into a series of wells located along Ellis Avenue in the City of Fountain Valley to maintain the Talbert Gap Seawater Intrusion Barrier. The

treatment facility, currently known as Water Factory 21, will be supplanted by the Groundwater Replenishment System (GWRS) being constructed jointly by Orange County Water District and the Sanitation District (see preceding section on wastewater reclamation).

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V. Salt Management Plan – Monitoring Program Requirements (insert at end of section)

Subsequent to the approval of the Region's Salt and Nutrient Management Plan in 2004, a new task force, the "Basin Monitoring Program Task Force" (BMPTF) was formed to implement the requisite nitrogen/TDS monitoring and analyses programs described previously. SAWPA serves as the administrator for the BMPTF.

The Task Force includes the following agencies:

- | | |
|---|---|
| • <u>Eastern Municipal Water District</u> | • <u>Chino Basin Watermaster</u> |
| • <u>Inland Empire Utilities Agency</u> | • <u>Yucaipa Valley Water District</u> |
| • <u>Orange County Water District</u> | • <u>City of Beaumont</u> |
| • <u>City of Riverside</u> | • <u>City of Corona</u> |
| • <u>Lee Lake Water District</u> | • <u>City of Redlands</u> |
| • <u>Elsinore Valley Municipal Water District</u> | • <u>City of Rialto</u> |
| • <u>Irvine Ranch Water District</u> | • <u>Jurupa Community Services District</u> |
| • <u>Colton/San Bernardino Regional Tertiary Treatment and Wastewater Reclamation Authority</u> | • <u>Western Riverside Co Regional Wastewater Authority</u> |

The Santa Ana Regional Water Quality Control Board and SAWPA are also signatories to the BMPTF agreement.

As indicated above (Section V.A and V.B), the task force agencies are required to conduct the following investigations:

1. Recomputation of the Ambient Water Quality – every three years
2. Preparation of a Water Quality Report for the Santa Ana River – annually

Declaration of Conformance

Another major activity that the BMPTF completed in March 2010 was the development of a "Declaration of Conformance" for approval by the Regional Board and the State Water Resources Control Board. With the Declaration, the Task Force and Regional Board declared conformance with the then-new State Board Recycled Water Policy requirements for the completion of a salt and nutrient management plan for the Santa Ana Region, and other requirements of this Policy. This finding of conformance was based on the work of the Nitrogen/TDS Task Force. That work resulted in the 2004 adoption of Basin Plan amendments to incorporate a revised salt and nutrient management plan for the Region

(Resolution No. R8-2004-0001). Further, the Declaration documented conformance with the emerging constituents monitoring requirements in the Policy through the "Emerging Constituents Sampling and Investigation Program", submitted to the Regional Board on an annual basis by the Emerging Constituents Program Task Force. The Sampling and Investigation Program will be reviewed annually and revised as necessary and will integrate the State Board's recommendations when they become available. Finally, the Declaration of Conformance documents the analyses and procedures that will be used to streamline the permitting process for recycled water projects, as required by the Policy.

The Declaration of Conformance was formally adopted by resolution of the Regional Board on March 18, 2010 (Resolution No. R8-2010-0012) and formally submitted to the State Board on April 12, 2010.

Salt Monitoring Cooperative Agreement

In January, 2008 the Regional Board entered into a Cooperative Agreement with several water and wastewater agencies in the Santa Ana River Watershed to analyze and report the amount of salt and nitrates entering local groundwater aquifers as a consequence of recharging imported water in the region. The "Cooperative Agreement to Protect Water Quality and Encourage the Conjunctive Use of Imported Water in the Santa Ana River Basin" is Attachment A to Resolution No. R8-2008-0019.

As with the BMPTF effort underwritten by local stakeholders, the Cooperative Agreement obligates signatories to assess current groundwater quality every three years. In addition, the signatories have agreed to estimate every six years the changes that are likely to occur in groundwater quality as a result of on-going and expected projects that recharge imported water. By emphasizing the use of "real-time" monitoring, rather than complex fate and transport models, the Regional Board is better able to evaluate the effects of these recharge projects.

The parties of the Cooperative Agreement execute the terms of the agreement through a workgroup that meets regularly under the administration of SAWPA. As the informal administrator, SAWPA assists in coordination among the signatories of the necessary basin salinity monitoring and modeling reports, along with final compilation and submittal of the reports to the Regional Board by the deadlines defined in the agreement.

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VI. Maximum Benefit Implementation Plans for Salt Management

B. Salt Management—San Timoteo Watershed

1. San Timoteo and Yucaipa Management Zone—Yucaipa Valley Water District

Two sets of objectives have been adopted for the San Timoteo and Yucaipa Management Zones: the "maximum benefit" objectives and objectives based on historic ambient quality ("antidegradation" objectives) (see Chapter 4). The application of the "maximum benefit" objectives relies on the implementation by the Yucaipa Valley Water District (YVWD) (and in the case of the San Timoteo Management Zone, by the City of Beaumont/STWMA (see discussion below)) of a specific program of projects and requirements [Ref. 10D]. This program is a part of a watershed-scale water resources management plan designed by YVWD and other members of the San Timoteo Watershed Management Authority (STWMA) (the City of Beaumont, the Beaumont Cherry Valley Water District and the South Mesa Water Company) to assure reliable supplies to meet present and anticipated demands. The projected water demands for the Yucaipa area for the year 2030 require approximately an additional 10,000 AFY of supplemental water, including State Water Project water, water imported from local sources, recharged storm water and recycled water. YVWD is in the process of implementing the water resources management plan, which includes enhanced recharge of stormwater and recycled water, optimizing direct use of recycled and imported water, and conjunctive use.

In addition to its water supply responsibilities, YVWD provides sewage collection and treatment services within its service area. YVWD operates a wastewater treatment facility that currently discharges tertiary treated wastewater to San Timoteo Creek, Reach 3. This unlined reach of the Creek overlies and recharges the San Timoteo groundwater management zone.

Table 5-9a identifies the projects and requirements that must be implemented by YVWD to demonstrate that water quality consistent with maximum benefit to the people of the state will be maintained. An implementation schedule is also specified. The Regional Board will revise YVWD's waste discharge requirements to require that these commitments be met. It is assumed that maximum benefit is demonstrated, and that the "maximum benefit" water quality TDS and nitrate-nitrogen objectives apply to the Yucaipa and San Timoteo Management Zones, as long as the schedule is being met². If the Regional Board determines that the maximum benefit program is not being implemented effectively in accordance with the schedule shown in Table 5-9a (and in the case of the San Timoteo Management Zone, the commitments and schedule shown in Table 5-10a (see next section)), then maximum benefit is not demonstrated and the "antidegradation" TDS and nitrate-nitrogen objectives apply. In this situation, the Regional Board will require mitigation for TDS and nitrate-nitrogen discharges affecting these management zones that took place in excess of limits based on the "antidegradation" objectives. As for Chino Basin Watermaster and Inland Empire Utilities Agency, discharges in excess of the antidegradation objectives that must be considered for mitigation include both recycled water and imported water, at TDS concentrations in excess of the antidegradation objectives. Mitigation by groundwater extraction and desalting must be adjusted to address concentrations of salt and nitrogen in the basin, not simply salt load.

² Application of "maximum benefit" objectives for the San Timoteo Management Zone is also contingent on the timely implementation of the commitments by the City of Beaumont and the San Timoteo Watershed Management Authority which are discussed in the next section.

Table 5-9a

Yucaipa Valley Water District Maximum Benefit Commitments

Description of Commitment	Compliance Date — as soon as possible, but no later than
1. Surface Water Monitoring Program a. Submit Draft Monitoring Program to Regional Board b. Implement Monitoring Program c. Quarterly data report submittal d. Annual data report submittal	a. January 23, 2005 b. Within 30 days from Regional Board approval of monitoring plan c. April 15, July 15, October 15, January 15 d. February 15th
2. Groundwater Monitoring Program a. Submit Draft Monitoring Program to Regional Board b. Implement Monitoring Program c. Annual data report submittal	a. January 23, 2005 b. Within 30 days from Regional Board approval of monitoring plan c. February 15th
3. Desalter(s) and Brine Disposal Facilities a. Submit plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to operational as soon as possible but no later than 7 years from date of Regional Board approval of plan/schedule. b. Implement the plan and schedule	a. Within 6 months of either of the following: i. When YVWD's effluent 5-year running average TDS exceeds 530 mg/L; and/or ii. When volume-weighted average concentration in the Yucaipa MZ of TDS exceeds 360 mg/L b. Within 30 days from Regional Board approval of monitoring plan
4. Non-potable water supply Implement non-potable water supply system to serve water for irrigation purposes. The non-potable supply shall comply with a 10-year running average TDS concentration of 415 mg/L or less	December 23, 2014

Description of Commitment	Compliance Date— as soon as possible, but no later than
5. Recycled water recharge The recharge of recycled water in the Yucaipa or San Timoteo Management Zones shall be limited to the amount that can be blended with other recharge sources to achieve a 5-year running average equal to or less than the "maximum benefit" objectives for TDS and nitrate-nitrogen for the relevant Management Zone(s). a. Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge. b. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of YVWD-enhanced recharge facilities/programs	Compliance must be achieved by end of 5th year after initiation of recycled water use/recharge operations. a. Prior to initiation of construction of basins/other facilities to support enhanced stormwater/imported water recharge. b. Annually, by January 15th, after initiation construction of facilities/implementation of programs to support enhanced recharge.
6. Ambient groundwater quality determination	July 1, 2005 and every 3 years thereafter
7. Replace denitrification facilities (necessary to comply with TIN wasteload allocation specified in Table 5-5)	New facilities shall be operational no later than December 23, 2007
8. YVWD recycled water quality improvement—plan and schedule a. Submit plan and schedule b. Implement plan and schedule	a. 60 days after the TDS 12-month running average effluent quality equals or exceeds 530 mg/L for 3 consecutive months and/or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place) b. Upon approval by Regional Board
9. Remove/reduce the discharge of YVWD effluent— from the unlined portion of San Timoteo	

Description of Commitment	Compliance Date -- as soon as possible, but no later than
Creek a. Submit proposed plan/schedule b. Implement plan/schedule	a. June 23, 2005 b. Upon Regional Board approval
10. Construct the Western Regional Interceptor for Dunlap Acres a. Submit proposed construction plan and schedule. The schedule shall assure the completion of construction as soon as possible but no later than January 1, 2010. b. Implement plan and schedule	a. June 23, 2005 b. Upon Regional Board approval

A. Description of Yucaipa Valley Water District Commitments

1. ~~Surface Water Monitoring Program (Table 5-9a, #1)~~

The YVWD shall develop and submit for Regional Board approval a surface water monitoring program for San Timoteo Creek and the Santa Ana River Reaches 4 and 5. The monitoring program must be implemented within 30 days of Regional Board approval of the monitoring plan, and six months of data must be generated prior to the implementation of any changes made to the effluent discharge points and before any recycled water is used in the Yucaipa or San Timoteo Management Zones.

At a minimum, the surface water monitoring program shall include the collection of monthly measurements of TDS and nitrogen components in San Timoteo Creek and Santa Ana River, Reaches 4 and 5 (see Table 5-9b). Data reports shall be submitted to the Regional Board's Executive Officer by April 15, July 15, October 15 and January 15 each year. An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted by February 15th of each year.

2. ~~Groundwater Monitoring Program (Table 5-9a, #2)~~

The purpose of the Groundwater Monitoring Program is to identify the effects of the implementation of the San Timoteo and Yucaipa Management Zones maximum benefit water quality objectives on water levels and water quality within the San Timoteo and Yucaipa Management Zones. Prior to discharge of recycled water to the San Timoteo and/or Yucaipa Management Zones, YVWD shall submit to the Regional Board for approval a groundwater monitoring program to determine ambient water quality in the San Timoteo and Yucaipa Management Zones. The groundwater monitoring program must be implemented within 30 days of approval by the Regional Board.

An annual report, including all raw data and summarizing the results of the approved groundwater monitoring program, shall be submitted to the Regional Board by February 15th of each year.

3. ~~Desalters and Brine Disposal (Table 5-9a, #3)~~

~~YVWD anticipates that demineralization of groundwater or recycled water will be necessary in the future. YVWD is committed to construct and operate desalting and brine disposal facilities when:~~

- ~~1) The 5-year running average TDS concentration in recycled water produced at the YVWD wastewater treatment plant exceeds 530 mg/L; or~~
- ~~2) The volume-weighted TDS concentration in the Yucaipa Management Zone reaches or exceeds 360 mg/L~~

~~The construction of these facilities will be in accordance with a plan and schedule submitted by YVWD and approved by the Regional Board. The schedule shall assure that these facilities are in place within 7 years of Regional Board approval. These facilities shall be designed to stabilize or reverse the degradation trend evidenced by effluent and/or management zone quality.~~

4. ~~Non-potable water supply distribution system (Table 5-9a, # 4)~~

~~A key element of the YVWD's water resources management plan is the construction of a non-potable supply system to serve a mix of recycled water and un-treated imported water for irrigation uses. The intent of blending these sources is to minimize the impact of recycled water use on the Yucaipa and San Timoteo Management Zones.~~

~~Parts of this system are under design and construction. A higher proportion of State Project water will be used in wet, surplus years, while larger amounts of recycled water will be used in dry, deficit years. YVWD will produce a non-potable supply with a running ten-year average TDS concentration for the Yucaipa Management Zone of 415 mg/L.~~

Table 5—9b

Surface Water Monitoring Sites for Monitoring Water Quality and Quantity
Yucaipa Valley Water District

Site Name	Discharge	Owner	Type	Discharge Monitoring	Water Quality
Monitoring				Frequency	Period
Period	Analyses			Frequency	Period
11057500, Gage	San Timoteo Creek	USGS	Total Discharge	Bi-weekly	Jan-Dec
Dec TDS, TIN, Physical				Bi-weekly	Jan-Dec
At Barton Rd.	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec
TDS, TIN, Physical				Bi-weekly	Jan-Dec
At San Timoteo	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec
TDS, TIN, Physical				Bi-weekly	Jan-Dec
Canyon Rd.					
Above confluence	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec
TDS, TIN, Physical				Bi-weekly	Jan-Dec
Yucaipa Creek					
Above YVWD	San Timoteo Creek	YVWD	Total Discharge	Bi-weekly	Jan-Dec
TDS, TIN, Physical				Bi-weekly	Jan-Dec
Discharge					
11059300 Gage	Santa Ana River	USGS	Total Discharge	Bi-weekly	Jan-Dec
Dec TDS, TIN, Physical				Bi-weekly	Jan-Dec
At Waterman Ave	Santa Ana River	YVWD	Total Discharge	Bi-weekly	Jan-Dec
TDS, TIN, Physical				Bi-weekly	Jan-Dec
Recharged to	State Water Project	YVWD	Total Discharge	Monthly	Jan-Dec
Dec TDS, Nitrate-N				Monthly	Jan-Dec
Yucaipa MZ					
Recharged to	Storm water	YVWD	Total Discharge	Monthly	Jan-Dec
Dec TDS, Nitrate-N				Monthly	Jan-Dec
Yucaipa MZ					

5. Recycled Water Use (Table 5-9a, # 5)

The use and recharge of recycled water within the Yucaipa Management Zone is a critical component of the YVWD water management plan and is necessary to maximize the use of the water resources of the Yucaipa area. The demonstration of "maximum benefit" and the continued application of the "maximum benefit" objectives depends on the combined recharge (recycled water, imported water, storm water) to the Yucaipa Management Zone of a 5-year annual average (running average) TDS concentration of 370 mg/L and nitrate-nitrogen concentration of 5 mg/L. If recycled water recharge in the proposed San Timoteo Management Zone is pursued, then the application of the "maximum benefit" objectives will depend on the combined recharge to that Zone of 5-year annual average (running average) concentrations of 400 mg/L or

less TDS, and 5 mg/L or less nitrate-nitrogen.

To meet this requirement, YVWD will establish a fund to purchase imported water from local sources and/or the State Water Project and will recharge water with a TDS concentration less than 300 mg/L (recent long term historical average of water delivered from the State Project). YVWD will also pursue implementation, with the City of Yucaipa and the San Bernardino County Flood Control District, of the *Yucaipa Water Capture and Resource Management Complex* by December 31, 2010.

Accordingly, the use of recycled water for groundwater recharge in the Yucaipa or San Timoteo Management Zone shall be limited to the amount that can be blended in the management zone on a volume-weighted basis with other sources of recharge to achieve 5-year running average concentrations less than or equal to the "maximum benefit" objectives for the affected groundwater management zone. The 25% nitrogen loss coefficient will be applied in determining the amount of recharge of other water sources that must be achieved to meet the 5-year running average nitrogen concentrations.

6. ~~Ambient Groundwater Quality Determination (Table 5-9a, #6)~~

By July 1, 2005, and every three years thereafter, YVWD shall submit a determination of ambient TDS and nitrate-nitrogen quality in the San Timoteo and Yucaipa Management Zones. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen "antidegradation" water quality objectives for groundwater management zones within the region. [Ref. 1].

7. ~~Replacement of Denitrification Facilities (Table 5-9a, #7)~~

YVWD shall replace existing denitrification facilities to provide effluent total inorganic nitrogen quality (6 mg/L) needed to assure compliance with the "maximum benefit" nitrate-nitrogen objective of the San Timoteo and Yucaipa Management Zones (see Wasteload Allocation section of this Chapter). A maximum three-year schedule for completion of these facilities will be required. This schedule will be specified in a revised NPDES permit for YVWD's discharges to San Timoteo Creek.

8. ~~YVWD Recycled Water Management (Table 5-9a, #8)~~

YVWD expects to limit the TDS concentration in its effluent to less than or equal to 540 mg/L by using a low TDS source water supply for potable uses, selective desalting of either source water and/or recycled waters, and minimizing the TDS waste increment. YVWD is currently constructing a 12-MGD treatment plant to treat and serve State Project Water. The plant will also be able to treat low TDS Mill Creek and Santa Ana River water. When necessary, YVWD will construct desalters to reduce either the TDS concentration in water supplied to customers or the TDS concentration in the effluent. YVWD will also use best efforts to enact ordinances and other requirements to minimize the TDS use increment.

Within 60 days after the YVWD 12-month running average concentration for TDS equals or exceeds 530 mg/L for 3 consecutive months, or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place), YVWD shall submit to the Regional Board a plan and time schedule for implementation of measures to insure that the average agency wastewater effluent quality does not exceed 540 mg/L and 6 mg/L for TDS and TIN, respectively. The plan and schedule are to be implemented upon approval by the Regional Board.

9. ~~Relocation of San Timoteo Creek Discharge (Table 5-9a, #9)~~

YVWD has established the goal of eliminating its discharge to the unlined reach of San Timoteo Creek by 2008. First priority will be given to the direct reuse and limited recharge of this recycled water in the YVWD service area (principally the area overlying the Yucaipa Management Zone). The District may construct a pipeline to convey the recycled water to the San Jacinto watershed for reuse. The District is also planning the construction of a pipeline to convey recycled water downstream to the lined reach of the Creek (Reach 1A) to minimize recycled water effects on the San Timoteo Management Zone. In the long term, discharges

to this area of the Creek are likely to be infrequent and limited to the wintertime, when the recycled water cannot be used in the YVWD (or potentially, the San Jacinto) service areas. However, YVWD is obligated to maintain flows in the Creek to support existing riparian habitat (State Board Order No. WW-26) and may need to continue recycled water discharges at some level. Groundwater and imported State Project water may also be used as alternative water sources.

Whole or partial removal of the discharge from the unlined reach of San Timoteo Creek would improve the quality of groundwater in the San Timoteo Management Zone and supplement recycled water supplies available for reuse elsewhere in the service area.

By June 23, 2005, YVWD shall submit a proposed plan and schedule to remove/reduce the discharge of recycled water to the unlined reach of San Timoteo Creek. The plan and schedule shall be implemented upon Regional Board approval.

40. Construction of Western Regional Interceptor (Table 5-9a, #10)

YVWD will construct the Western Regional Interceptor to provide wastewater collection and treatment services to Dunlap Acres in order to mitigate what has been identified as a poor quality groundwater area due to prior agricultural use and existing septic systems. The Dunlap Acres area was inadvertently omitted from the Yucaipa-Calimesa septic tank subsurface disposal system prohibition established by the Regional Board in 1973. The interceptor includes the construction of a major wastewater interceptor pipeline, a force main and pump station. YVWD committed to complete construction of these facilities prior to 2010. Regional Board action may be necessary to require connection of properties to the wastewater collection system, when it is completed.

By June 23, 2005, YVWD shall submit a plan and schedule for construction of the Interceptor. The Interceptor is to be complete no later than January 1, 2010. YVWD shall implement the plan and schedule upon Regional Board approval.

B. Implementation by Regional Board

4. Revision to Yucaipa Valley Water District NPDES Permit

To implement the "maximum benefit" objectives, the Regional Board will revise the NPDES permit for YVWD wastewater discharges to reflect the commitments described above, as appropriate. This includes the following:

The discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 540 mg/L TDS and 6 mg/L TIN. These limits are based on the "maximum benefit" wasteload allocations shown in Table 5-5. A schedule not to exceed December 23, 2007 for compliance with this TIN limit shall be included in the permit. This schedule will enable YVWD to replace its existing denitrification facilities. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative limits are also specified in Table 5-5. Compliance schedules for these alternative limits will be specified in YVWD's waste discharge requirements, as necessary.

YVWD will be required to implement measures to improve effluent quality when the 12-month running average effluent TDS quality equals or exceeds 530 mg/L for 3 consecutive months, and/or when the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once replacement denitrification facilities are in place).

YVWD's waste discharge requirements will require that recycled water used for recharge shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 5-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the affected management zone (Yucaipa or San Timoteo). Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified for recycled water

recharge in these management zones.

The effluent limits for YVWD, which establish an upper limit on TDS and TIN concentrations of recycled water discharged in the Yucaipa and/or San Timoteo Management Zones, are a cornerstone of the maximum benefit demonstration. The cap on effluent TDS and TIN concentrations provides a controlling point for management of TDS and nitrogen water quality. YVWD will be required to initiate the building of a desalter and brine disposal line when the 5-year running average TDS in YVWD's effluent reaches 530 mg/L, or when the volume weighted average TDS concentration in the Yucaipa Management Zone reaches 360 mg/L. YVWD will immediately implement a salt management program to reduce the salts entering the District's wastewater treatment plant. This salt management program will include: 1) provision of incentives for the removal of on-site regenerative water softeners and the use of off-site regenerative systems; and 2) percolation of State Water Project water into the Yucaipa Management Zone when State Water Project water has low TDS. Implementing these measures will assure that the groundwater quality remains at or below the Yucaipa Management Zone objective of 360 mg/L TDS. Maintenance of this ambient groundwater quality is necessary, in turn, to assure that YVWD's wastewater treatment facility is able to meet the effluent TDS limits. Yucaipa Management Zone groundwater is a significant component of the water supplied in YVWD's service area, and its quality thus has an important effect on effluent quality. Poor ambient quality will preclude YVWD from meeting effluent limits without desalting.

YVWD will be required to submit proposed plans and schedules for the removal/reduction of its wastewater discharges from the unlined reach of San Timoteo Creek and for the construction of the Western Regional Interceptor. YVWD's revised permit will also reflect the surface and groundwater monitoring program requirements described above. This includes the determination of ambient quality in the San Timoteo and Yucaipa Management Zones.

2. Review of Project Status

No later than 2005, and every three years thereafter (to coincide with the Regional Board's triennial review process), the Regional Board intends to review the status of the activities planned and executed by the YVWD to demonstrate maximum benefit and justify continued implementation of the "maximum benefit" water quality objectives. This review is intended to determine whether the commitments specified above and summarized in Table 5-9a are met. As indicated above, if, as a result of this review, the Regional Board finds that the YVWD commitments are not met and after consideration at a duly noticed Public Hearing, the Regional Board will make a finding that the lowering of water quality associated with TDS and nitrate-nitrogen water quality objectives that are higher than historical water quality (the "antidegradation" objectives) is not of maximum benefit to the people of the state. By default, the scientifically derived "antidegradation" objectives for the San Timoteo (300 mg/L for TDS, 2.7 mg/L for nitrate-nitrogen) and Yucaipa (320 mg/L for TDS and 4.2 mg/L for nitrate-nitrogen Management Zones would become effective (see Chapter 4).

Furthermore, in the event that the projects and actions specified in Table 5-9a are not implemented, the Regional Board will require that the YVWD mitigate the adverse water quality effects, both on the immediate and downstream waters, that resulted from the recycled water discharges based on the "maximum benefit" objectives.

~~2. San Timoteo and Beaumont Management Zones—City of Beaumont and San Timoteo Watershed Management Authority (STWMA)~~

~~As shown in Chapter 4, two sets of TDS and nitrate-nitrogen objectives have been adopted for both the San Timoteo and Beaumont Management Zones: the "maximum benefit" objectives and objectives based on historic ambient quality (the "antidegradation" objectives). The application of the "maximum benefit" objectives for these Management Zones is contingent on the implementation of commitments by the City of Beaumont/STWMA (and, in the case of the San Timoteo Management Zone, by the Yucaipa Valley Water District (YVWD; see preceding discussion)) to implement a specific water and wastewater resources management program [Ref. 10E]. This program is part of a coordinated effort by the member agencies of STWMA to develop and implement projects that will assure reliable water supplies to meet rapidly increasing demands in this area. The San Timoteo Watershed Management Program (STWMP) developed by STWMA entails enhanced recharge of native and recycled water, maximizing the direct use of recycled water, optimizing the direct use of imported water, recharge and conjunctive use.~~

~~Wastewater collection and treatment services in the STWMA service area are provided by the City of Beaumont, as well as YVWD. Beaumont discharges tertiary-treated wastewater to Coopers Creek, a tributary of San Timoteo Creek, Reach 3. This unlined reach of the Creek overlies and recharges the San Timoteo groundwater management zone.~~

~~Table 5-10a identifies the projects and requirements that must be implemented by Beaumont/STWMA to demonstrate that water quality consistent with maximum benefit to the people of the state will be maintained. STWMA, acting for all its member agencies, has committed to conduct the regional planning and monitoring activities necessary to implement these "maximum benefit" commitments, and the San Timoteo Watershed Management Program as a whole. Table 5-10a also specifies an implementation schedule. The Regional Board will revise the City of Beaumont's waste discharge requirements and take other actions as necessary to require that these commitments be met. It is assumed that maximum benefit is demonstrated, and that the "maximum benefit" water quality TDS and nitrate-nitrogen objectives apply to the Beaumont and San Timoteo Management Zones, as long as the schedule is being met³. If the Regional Board determines that the maximum benefit program is not being implemented effectively in accordance with the schedule shown in Table 5-10a (and in the case of the San Timoteo Management Zone, the commitments and schedule shown in Table 5-9a (see preceding section)), then maximum benefit is not demonstrated, and the "antidegradation" TDS and nitrate-nitrogen objectives apply. In this situation, the Regional Board will require mitigation for TDS and nitrate-nitrogen discharges affecting these management zones that took place in excess of limits based on the "antidegradation" objectives.~~

³ ~~Application of "maximum benefit" objectives for the San Timoteo Management Zone is also contingent on the timely implementation of the commitments by the Yucaipa Valley Water District which are discussed in the preceding section.~~

Table 5-10a

City of Beaumont and San Timoteo Watershed Management Authority
Maximum Benefit Commitments

Description of Commitment	Compliance Date — as soon as possible, but no later than
1. Surface Water Monitoring Program a. Submit Draft Monitoring Program to Regional Board b. Implement Monitoring Program c. Quarterly data report submittal d. Annual data report submittal	a. January 23, 2005 b. Within 30 days from Regional Board approval of monitoring plan c. April 15, July 15, October 15, January 15 d. February 15th
2. Groundwater Monitoring Program a. Submit Draft Monitoring Program to Regional Board b. Implement Monitoring Program c. Annual data report submittal	a. January 23, 2005 b. Within 30 days from Regional Board approval of monitoring plan c. February 15th
3. Desalter(s) and Brine Disposal Facilities a. Submit plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to be operational as soon as possible but no later than 7 years from date of Regional Board approval of plan/schedule. b. Implement the plan and schedule	a. Within 6 months of either of the following: i. When Beaumont's effluent 5-year running average TDS exceeds 480 mg/L; and/or ii. When volume-weighted average concentration in the Yucaipa MZ of TDS exceeds 320 mg/L b. Within 30 days from Regional Board approval of monitoring plan

Description of Commitment	Compliance Date – as soon as possible, but no later than
4. Non-potable water supply Implement non-potable water supply system to serve water for irrigation purposes. The non-potable supply shall comply with a 10-year running average TDS concentration of 390 mg/L or less	December 23, 2014
5. Recycled water recharge The recharge of recycled water in the Beaumont or San Timoteo Management Zones shall be limited to the amount that can be blended with other recharge sources to achieve a 5-year running average equal to or less than the "maximum benefit" objectives for TDS and nitrate-nitrogen for the relevant Management Zone(s). a. Submit baseline report of amount, locations, and TDS and nitrogen quality of stormwater/imported water recharge. b. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of City of Beaumont/STWMA enhanced recharge facilities/programs	Compliance must be achieved by end of 5th year after initiation of recycled water use/recharge operations. a. Prior to initiation of construction of basins/other facilities to support enhanced stormwater/imported water recharge. b. Annually, by January 15th, after initiation construction of facilities/implementation of programs to support enhanced recharge.
6. Ambient groundwater quality determination	July 1, 2005 and every 3 years thereafter
7. Replace denitrification facilities (if necessary to comply with TIN wasteload allocation specified in Table 5-5)	Compliance with 6 mg/L TIN limitation to be achieved by December 23, 2007
8. City of Beaumont recycled water quality improvement plan and schedule a. Submit plan and schedule	a. 60 days after the TDS 12-month running average effluent quality equals or exceeds 480 mg/L for 3 consecutive months and/or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once facility/operational changes needed to achieve 6 mg/L TIN are in place)

Description of Commitment	Compliance Date—as soon as possible, but no later than
b. Implement plan and schedule	b. Upon approval by Regional Board
9. Remove/reduce the discharge of Beaumont's effluent —from the unlined portion of San Timoteo —Creek a. Submit proposed plan/schedule b. Implement plan/schedule	a. June 23, 2005 b. Upon Regional Board approval

A. Description of City of Beaumont, San Timoteo Watershed Authority Commitments

1. Surface Water Monitoring Program (Table 5-10a, #1)

The City of Beaumont and the STWMA shall develop and submit for Regional Board approval a surface water monitoring program for San Timoteo, Little San Gorgonio and Noble Creeks at the locations listed in Table 5-10b. The monitoring program must be implemented within 30 days of Regional Board approval of the monitoring plan, and six months of data must be generated prior to the implementation of any changes to the effluent discharge points and before any recycled water is used in the Beaumont or San Timoteo Management Zones.

At a minimum, the surface water monitoring program shall include the collection of monthly measurements of TDS and nitrogen components at locations in San Timoteo, Little San Gorgonio and Noble Creeks (see Table 5-10b). Data reports shall be submitted to the Regional Board's Executive Officer by April 15, July 15, October 15 and January 15 each year. An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted February 15th of each year.

2. Groundwater Monitoring Program (Table 5-10a, #2)

The purpose of the groundwater monitoring program is to identify the effects of the implementation of the Beaumont and San Timoteo Management Zone maximum benefit TDS and nitrate-nitrogen water quality objectives on water levels and water quality within the Beaumont and San Timoteo Management Zones. Prior to discharge of recycled water to the Beaumont and/or San Timoteo Management Zone, the City of Beaumont and the STWMA shall submit to Regional Board for approval a groundwater monitoring program to determine ambient water quality in the Beaumont and San Timoteo Management Zones. The groundwater monitoring program must be implemented within 30 days of approval by the Regional Board.

An annual report, including all raw data and summarizing the results of the approved groundwater

monitoring program, shall be submitted to the Regional Board by February 15th of each year.

3. Desalters and Brine Disposal (Table 5-10a. #3)

The City of Beaumont and the STWMA shall construct and operate desalting facilities and brine disposal facilities when:

- a. The 5-year running average TDS concentration in recycled water produced at the City of Beaumont wastewater treatment plant exceeds 480 mg/L, or
- b. The volume-weighted TDS concentration in the Beaumont Management Zone equals or exceeds 320 mg/L.

The construction of these facilities will be in accordance with a plan and schedule submitted by Beaumont/STWMA and approved by the Regional Board. The schedule shall assure that these facilities are in place within 7 years of Regional Board approval. These facilities shall be designed to stabilize or reverse the degradation trend evidenced by effluent and/or management zone quality.

Table 5-10b

Surface Water Monitoring Sites for Monitoring Water Quality and Quantity City of Beaumont & San Timoteo Watershed Management Authority

Site Name	Discharge	Owner	Type	Discharge	Monitoring	Water Quality Monitoring
				Frequency	Period	Frequency Period
Analyses						
Above confluence TIN, Physical With Coopers Cr.	San Timoteo Creek	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly Jan-Dec TDS,
Near Hinda TIN, Physical Sec.35 T2S,R2W	San Timoteo Creek	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly Jan-Dec TDS,
Above confluence TIN, Physical With San Timoteo Creek	Coopers Creek	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly Jan-Dec TDS,
At Freeway 10 TIN, Physical	Little San Gorgonio Cr.	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly Jan-Dec TDS,
At Freeway 10 TIN, Physical	Noble Creek	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Bi-weekly Jan-Dec TDS,
Recharged to Nitrate-N Beaumont MZ	State Water Project	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Monthly Jan-Dec TDS,
Recharged to Nitrate-N Beaumont MZ	Storm water	Beaumont & STWMA	Total Discharge	Bi-weekly	Jan-Dec	Monthly Jan-Dec TDS,

4. Non-potable water supply distribution system (Table 5-10a, #4)

Like YVWD, the City of Beaumont is constructing a non-potable water system that will convey untreated State Project water and recycled water for irrigation within its service area. The intent of blending these sources is to minimize the impact of recycled water use on groundwater quality in the proposed Beaumont and San Timoteo Management Zones. A higher proportion of State Project water will be used in wet, surplus years, while larger amounts of recycled water will be used in dry, deficit years.

5. Recycled Water Use (Table 5-10a, #5)

The use of recycled water within the Beaumont Management Zone is a critical component of the City of Beaumont and STWMA water management plan and is necessary to maximize the use of the water resources of the Beaumont area.

The demonstration of "maximum benefit" and the continued application of the "maximum benefit" objectives depends on the combined recharge (recycled water, imported water, storm water) to the Beaumont Management Zone of a 5-year annual average (running average) TDS concentration of 330 mg/L and a nitrate-nitrogen concentration of 5 mg/L. If recycled water recharge in the San Timoteo Management Zone is pursued, then the application of the "maximum benefit" objectives will depend on the combined recharge to that Zone of 5-year annual average (running average) concentrations of 400 mg/L or less TDS, and 5 mg/L or less nitrate-nitrogen.

To comply with this requirement, the STWMA member agencies are developing plans to recharge and store State Project water in the proposed Beaumont Management Zone. The Beaumont-Cherry Valley Water District (BCVWD) is developing a new 80-acre groundwater recharge project that will increase storm water recharge in the Beaumont Basin by 4,100 acre-ft/yr. This facility will also be used to recharge State Water project water. The City of Beaumont is also developing storm water recharge in facilities in newly developing areas, which is expected to result in the recharge of an additional 2,400-acre-ft/yr of stormwater runoff.

Accordingly, the use of recycled water for use or recharge in the Beaumont or San Timoteo Management Zone shall be limited to the amount that can be blended on a volume-weighted basis with other sources of recharge to achieve 5-year running average concentrations less than or equal to the "maximum benefit" objectives for the affected groundwater management zone. The 25% nitrogen loss coefficient will be applied in determining the amount of recharge of other water sources that must be achieved to meet the 5-year running average nitrogen concentrations.

6. Ambient Groundwater Quality Determination (Table 5-10a, #6)

By July 1, 2005, and every three years thereafter, the City of Beaumont and STWMA shall submit a determination of ambient TDS and nitrate-nitrogen quality in the Beaumont and San Timoteo Management Zones. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen "antidegradation" water quality objectives for groundwater management zones within the region [Ref. 1].

7. Replacement/modification of denitrification facilities (Table 5-10a, #7)

The City of Beaumont has committed to produce recycled water with a 12-month average TIN concentration of 6 mg/L or less by 2008. This may be accomplished via operational changes, or may require the installation/modification of facilities. This TIN effluent quality is specified in the TIN wasteload allocation (see Table 5-5) and is necessary to assure compliance with the proposed "maximum benefit" nitrate-nitrogen objective for the Beaumont and San Timoteo Management Zones (5 mg/L). An appropriate schedule, not to exceed December 23, 2007 for compliance with this effluent limit will be specified in a revised NPDES permit for the City.

8. City of Beaumont Wastewater Management (Table 5-10a, #8)

Beaumont expects to limit the TDS concentration in its effluent to less than or equal to 490 mg/L by using a low TDS source water supply for potable uses, selective desalting of either source water and/or recycled waters, and minimizing the TDS waste increment.

Within 60 days after the Beaumont 12-month running average concentration for TDS equals or exceeds 480 mg/L for 3 consecutive months, or the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once facility/operational changes needed to achieve 6 mg/L TIN are in place), the City of Beaumont shall submit to the Regional Board a plan and time schedule for implementation of measures to insure that the average agency wastewater effluent quality does not exceed 490 mg/L and 6 mg/L for TDS and TIN, respectively. The plan and schedule are to be implemented upon approval by the Regional Board.

9. Relocation of San Timoteo Creek Discharge (Table 5-10a, #9)

Like YVWD, Beaumont has established the goal of eliminating its discharge to the unlined reach of San Timoteo Creek by 2008 to minimize the impacts of these discharges on the San Timoteo Management Zone. The STWMP anticipates that Beaumont's recycled water will be almost completely reused within the Beaumont area for landscape irrigation, habitat enhancement, and potentially for groundwater recharge. Like YVWD, Beaumont and STWMA are also considering the export of a portion of Beaumont's surplus recycled water to the San Jacinto basin, where the TDS objectives are higher than those for the Beaumont Management Zone and recycled water demands are greater than supplies. Some limited recycled water discharge to Coopers Creek and thence to San Timoteo Creek may need to be continued to support existing riparian habitat.

Whole or partial removal of the discharge from the unlined reach of San Timoteo Creek would improve the quality of groundwater in the San Timoteo Management Zone and supplement recycled water supplies available for reuse elsewhere in the service area.

By June 23, 2005, Beaumont/STWMA shall submit a proposed plan and schedule to remove/reduce the discharge of recycled water to the unlined reach of San Timoteo Creek. The plan and schedule shall be implemented upon Regional Board approval.

B. Implementation by Regional Board

1. Revision of City of Beaumont NPDES Permit

To implement the "maximum benefit" objectives, the Regional Board will revise the NPDES permit for the City of Beaumont wastewater discharge to reflect the commitments described above, as appropriate. This includes the following:

The discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 490 mg/L TDS and 6 mg/L TIN. These limits are based on the wasteload allocation shown in Table 5-5. A schedule not to exceed December 23, 2007 for compliance with this TIN limit shall be included in the permit. This schedule will enable Beaumont to make the necessary facility/operational changes. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative limits are also specified in Table 5-5. Compliance schedules for these alternative limits will be specified in Beaumont's waste discharge requirements, as necessary.

Beaumont will be required to implement measures to improve effluent quality when the 12-month running average effluent TDS quality equals or exceeds 480 mg/L for 3 consecutive months, and/or when the 12-month running average TIN concentration equals or exceeds 6 mg/L in any month (once the facility/operational changes necessary to assure compliance with the 6 mg/L limit are in place).

Beaumont's waste discharge requirements will require that recycled water used for recharge shall be limited to the amount that can be blended with other water sources, such as stormwater or imported water, to achieve 5-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the affected management zone (Beaumont or San Timoteo).

The effluent limits for the City of Beaumont, which establish an upper limit on TDS and TIN concentrations of recycled water discharged in the management zones, are a key part of the maximum benefit demonstration. The cap on effluent TDS and TIN concentrations provides a controlling point for management of TDS and nitrogen water quality. The City of Beaumont has committed to initiate the building of a groundwater desalter and brine disposal line when the TDS in the City's effluent reaches 480 mg/L. Further, the City will immediately implement a salt management program to reduce the salts entering the City's wastewater treatment plant. This salt management program will include: 1) provision of incentives for the removal of on-site regenerative water softeners and the use of off-site regenerative systems; and 2) percolation of State Water Project water into the Beaumont Management Zone when State Water Project water has low TDS. Implementing these measures will assure that the groundwater quality remains at or below the Beaumont management zone objective of 330 mg/L TDS. Maintenance of this ambient groundwater quality is necessary, in turn, to assure that the City's wastewater treatment facility is able to meet the effluent TDS limits. Beaumont Management Zone groundwater is a component of the water supplied to the City and its quality thus has an important effect on the effluent quality. Poor ambient quality will preclude the City from meeting effluent limits without desalting.

Beaumont will be required to submit a proposed plan and schedule for the removal/reduction of its wastewater discharges from the unlined reach of San Timoteo Creek. Beaumont's revised permit will also reflect the surface and groundwater monitoring program requirements described above. This includes the determination of ambient quality in the San Timoteo and Beaumont Management Zones.

2. Review of Project Status

No later than 2005, and every three years thereafter (to coincide with the Regional Board's triennial review process), the Regional Board intends to review the status of the activities planned and executed by the City of Beaumont and STWMA to demonstrate maximum benefit and justify continued implementation of the "maximum benefit" water quality objectives. This review is intended to determine whether the commitments specified above and summarized in Table 5-10a are met. As indicated above, if, as a result of this review, the Regional Board finds that the City of Beaumont and STWMA commitments are not met and after consideration at a duly noticed Public Hearing, the Regional Board will make a finding that the lowering of water quality associated with TDS and nitrate-nitrogen water quality objectives that are higher than historical water quality (the "antidegradation" objectives) is not of maximum benefit to the people of the state. By default, the scientifically derived "antidegradation" objectives for the Beaumont and San Timoteo Management Zones would become effective (230 mg/L TDS and 1.5 mg/L nitrate-nitrogen for the Beaumont Management Zone; 300 mg/L TDS and 2.7 mg/L nitrate-nitrogen for the San Timoteo Management Zone (see Chapter 4).

Furthermore, in the event that the projects and actions specified in Table 5-10a are not implemented, the Regional Board will require that the City of Beaumont and STWMA mitigate the adverse water quality effects, both on the immediate and downstream waters, that resulted from the recycled water discharges based on the "maximum benefit" objectives. As for CBW/EUA and YAWD, discharges in excess of the antidegradation objectives that must be considered for mitigation include both recycled water and imported water, at TDS concentrations in excess of the antidegradation objectives. Mitigation by groundwater extraction and desalting must be adjusted to address concentrations of salt and nitrogen in the basin, not simply salt load.

Page 5-59ff.**B. Salt Management – San Timoteo Watershed**

The 2004 amendments to the Basin Plan established both “antidegradation” and “maximum benefit” nitrogen and TDS objectives for the Yucaipa, San Timoteo and Beaumont Groundwater Management Zones (see Chapter 4). These Groundwater Management Zones are within the San Timoteo Watershed. The agencies that proposed the “maximum benefit” objectives committed to implement specific programs of projects and actions that were also identified in the 2004 Salt Management Plan incorporated in the Basin Plan. These programs were intended to assure that water quality consistent with the maximum benefit to the people of the state would be maintained with the application of the “maximum benefit” objectives. These commitments included the implementation of surface and groundwater monitoring programs, use of recycled water supplies for non-potable uses and construction and operation of desalting facilities to manage recycled water quality.

In 2014 amendments to the Salt Management Plan, changes to these “maximum benefit” commitments and the parties responsible for them were made based on a regional strategy for the San Timoteo Watershed [Ref 10D] developed and proposed by the Yucaipa Valley Water District, the City of Beaumont, the City of Banning, Beaumont-Cherry Valley Water District and the San Geronio Pass Agency. The Regional Strategy initially addressed the Maximum Benefit program in the Beaumont Groundwater Management Zone; however, in order to have a consistent approach throughout the San Timoteo Watershed, the Regional Strategy approach was expanded to the San Timoteo and Yucaipa Groundwater Management Zones. The goal of this strategy is to assure reliable water supplies to meet present and anticipated demands. The “maximum benefit” commitments of each responsible agency are described below and shown in Tables 5-9a (Yucaipa Groundwater Management Zone), 5-9b (San Timoteo Groundwater Management Zone) and 5-9c (Beaumont Groundwater Management Zone). These commitments must be implemented by the responsible agencies in accordance with the prescribed schedule in order to assure that water quality consistent with maximum benefit to the people of the state will be maintained.

The Regional Board will revise waste discharge requirements as appropriate to require implementation of these commitments. For each groundwater management zone, it is assumed that maximum benefit is demonstrated, and that the “maximum benefit” water quality TDS and nitrate-nitrogen objectives apply as long as the commitments and schedule applicable to that groundwater management zone are satisfied. If the Regional Board determines that any or all of the maximum benefit programs are not being implemented effectively in accordance with the schedule(s) shown in Tables 5-9a through 5-9c, then maximum benefit is not demonstrated and the “antidegradation” TDS and nitrate-nitrogen objectives apply. In this situation, the Regional Board will require mitigation for TDS and nitrate-nitrogen discharges to the affected groundwater management zone that took place in excess of limits based on the “antidegradation” objectives for that Groundwater Management Zone. As specified for Chino Basin Watermaster and Inland Empire Utilities Agency (see Section VI.A, above), discharges in excess of the antidegradation objectives that must be considered for mitigation include both recycled water and imported water at TDS concentrations in excess of the antidegradation objectives. Mitigation by groundwater extraction and desalting must be adjusted to address concentrations of salt and nitrogen in the basin, not simply salt load.

1. Yucaipa Groundwater Management Zone - Yucaipa Valley Water District

The application of the "maximum benefit" objectives established for the Yucaipa Groundwater Management Zone relies on the implementation by the Yucaipa Valley Water District (YVWD) of the specific program of projects and requirements shown in Table 5-9a. These "maximum benefit" commitments were updated and revised in 2014 based on YVWD's ongoing activities to implement the 2004 program and the regional strategy YVWD helped to develop. The projected water demands for the Yucaipa area for the year 2030 require approximately an additional 10,000 AF/Y of supplemental water, which may include State Water Project water, water imported from local sources, recharged storm water and recycled water. The goal is to meet these demands through implementation of the "maximum benefit" commitments, which include enhanced recharge of storm water and recycled water, optimizing direct use of recycled and imported water, desalting of wastewater and/or groundwater and conjunctive use.

In addition to its water supply responsibilities, YVWD provides sewage collection and treatment services within its service area. YVWD operates a wastewater treatment facility that currently discharges tertiary treated wastewater to San Timoteo Creek, Reach 3. This unlined reach of the Creek overlies and recharges the San Timoteo Groundwater Groundwater Management Zone (see 2. San Timoteo Groundwater Management Zone – Yucaipa Valley Water District and the City of Beaumont). In response to commitments in the 2004 Salt Management Plan, YVWD has taken steps to improve recycled water quality, including the installation of new denitrification facilities and the design and construction of the Yucaipa Valley Regional Brineline and reverse osmosis treatment systems at the Wochholz Regional Water Recycling Facility. The desalting facilities are expected to be complete by June 30, 2015.

Dilution of recycled water with water to meet the 370 mg/L TDS concentration and the 5 mg/L nitrate-N concentration recycled water recharge and direct use requirements will be limited to new water recharge such as reverse osmosis permeate (diluent), imported water or new storm water. New storm water recharge is defined as storm water recharged in quantities greater than historical amounts (net increase) over the groundwater management zone since January 1, 2004. January 2004 corresponds to the month and year when the Regional Board authorized the original maximum benefit objectives and compliance commitments by adopting Resolution No. R8-2004-0001.

Table 5-9a

Yucaipa Groundwater Management Zone
Maximum Benefit Commitments

Responsible Agency – Yucaipa Valley Water District

<u>Description of Commitment</u>	<u>Compliance Date – as soon as possible, but no later than</u>
<u>1. Surface Water Monitoring Program</u> <u>a. Submit Draft Revised Monitoring Program to Regional Board</u> <u>b. Implement Revised Monitoring Program</u> <u>c. Submit Draft Revised Monitoring Program(s) (subsequent to that required in "a", above) to Regional Board</u> <u>d. Implement Revised Monitoring Program (s)</u> <u>e. Annual data report submittal</u>	<u>a. (**30 days from Regional Board approval of BPA)</u> <u>b. Upon Executive Officer approval</u> <u>c. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u> <u>d. Upon Executive Officer approval</u> <u>e. April 15th</u>
<u>2. Groundwater Monitoring Program</u> <u>a. Submit Draft Revised Monitoring Program(s)</u> <u>b. Implement revised monitoring plan(s)</u> <u>c. Annual data report submittal</u>	<u>a. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u> <u>b. Upon Executive Officer approval</u> <u>c. April 15th</u>
<u>3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u> <u>Complete construction of Desalter and Brine Disposal Facilities</u>	<u>June 30, 2015 (or as provided by the Executive Officer - see text below)</u>
<u>4. Non-potable water supply</u> <u>Implement non-potable water supply system to serve water for irrigation purposes and/or direct non-potable reuse. The non-potable supply used in the Yucaipa Groundwater Management Zone shall comply with a 10-year running average TDS concentration of 370 mg/L or less, and in addition, for any non-irrigation reuse that has the potential to affect groundwater quality, the nitrate-nitrogen shall be</u>	<u>June 30, 2015</u>

Table 5-9a

Yucaipa Groundwater Management Zone
Maximum Benefit Commitments

Responsible Agency – Yucaipa Valley Water District

<u>Description of Commitment</u>	<u>Compliance Date – as soon as possible, but no later than</u>
less than or equal to the 5 mg/L nitrate-nitrogen "maximum benefit" objective (taking the nitrogen loss coefficient into consideration). <u>5. Recycled water recharge</u> The recharge of recycled water in the Yucaipa Groundwater Management Zone shall be limited to the amount that can be blended with other recharge sources or reverse osmosis diluent to achieve a 10-year running average equal to or less than the 370 mg/L "maximum benefit" TDS objective and less than or equal to the 5 mg/L nitrate-nitrogen "maximum benefit" objective (taking the nitrogen loss coefficient into consideration). c. <u>Submit for Executive Officer approval, a proposed methodology for computing baseline and "new" storm water recharge.</u> The methodology will be posted for public comment for 30 days. If there are significant comments received, the Executive Officer will present the report to the Regional Board for its consideration at a regularly scheduled meeting. b. <u>Submit baseline report of amount, locations, and TDS and nitrogen quality of water/imported water recharge per the approved methodology (#5a).</u> c. <u>Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For storm water recharge used for blending, submit documentation that the recharge is the result of YVWD enhanced recharge facilities/programs</u>	Compliance must be achieved by end of 10th year after initiation of recycled water use/recharge operations. b. <u>6 months prior to initiation of construction of any basin/other facility to support enhanced storm water/imported water recharge.</u> c. <u>1 year from Executive Officer approval of methodology.</u> c. <u>Annually, by April 15th, after construction of facilities/implementation of programs to support enhanced recharge.</u>
<u>6. Antidegradation Objectives Salt Mitigation Plan</u> a. <u>Submit a proposed Salt Mitigation Plan and Implementation Schedule</u> b. <u>Implement Salt Mitigation Plan</u>	a. <u>Within (**1 year from OAL approval of BPA)</u> b. <u>Within 30 days of Regional Board finding that maximum benefit no longer being achieved</u>
<u>7. Ambient groundwater quality determination</u>	<u>July 1, 2014 and every 3 years thereafter</u>

A. Description of Yucaipa Valley Water District Commitments for the Yucaipa Management Zone

1. Surface Water Monitoring Program (Table 5-9a, # 1)

A surface water monitoring program was developed, approved and implemented in response to the maximum benefit commitments initially incorporated in the Basin Plan in 2004 (Resolution No. R8-2004-0001). The Regional Board approved the Surface Water Monitoring Program in 2005 (Resolution No. R8-2005-0065). Subsequently, the need to revise the monitoring program was recognized and appropriate amendments were adopted in 2014 (Resolution No. R8-2014-0005). These include the requirement that by (**30 days from Regional Board approval of the BPA**), YVWD shall submit a revised surface water monitoring program to the Regional Board for approval. The monitoring program must be implemented upon Executive Officer approval.

It is expected that the monitoring program will be reviewed as it is implemented over time, and that further updates may be necessary. YVWD committed to review the surface water monitoring program (and the groundwater monitoring program, see #2, below) as part of the determination of ambient groundwater quality, which occurs every three years pursuant to Basin Plan requirements (see #6, below). Though considered unlikely, it is possible that more frequent review and revision of these monitoring programs may be necessary. Accordingly, the Basin Plan requires review of the surface water monitoring program in coordination with the ambient quality determination and, further, that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring is to be implemented upon Executive Officer approval.

An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted by April 15th of each year.

2. Groundwater Monitoring Program (Table 5-9a, #2)

In response to the maximum benefit program requirements established in 2004 (Resolution No. R8-2004-0001), in 2005, YVWD submitted a proposed groundwater monitoring program. The Regional Board approved a groundwater monitoring program to determine ambient water quality in the Yucaipa Groundwater Management Zone (Resolution No. R8-2005-0065). The purpose of the groundwater monitoring program is to identify the effects of the implementation of the Yucaipa Groundwater Management Zone maximum benefit water quality objectives on water levels and water quality within the Yucaipa Groundwater Management Zone. The groundwater monitoring program has been implemented since 2005 and must continue to be implemented.

The existing groundwater monitoring implemented by YVWD to comply with the Maximum Benefit program authorized by the 2004 amendments to the salt management plan shall be continued into the future until a new monitoring plan is approved by the Executive Officer. Any new monitoring plan developed by YVWD shall preserve the geospatial distribution of groundwater wells and the sampling of those wells utilized in the existing Regional Board-approved maximum benefit monitoring program.

As noted above, the groundwater monitoring program will be reviewed as part of regular ambient groundwater quality determinations and may be revised. Once again, more frequent review and revision may be necessary as the monitoring program is implemented over time.

Accordingly, the Basin Plan requires that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring program is to be implemented upon Executive Officer approval.

An annual report, including all raw data and summarizing the results of the approved groundwater monitoring program, shall be submitted to the Regional Board by April 15th of each year.

3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9a, #3)

YVWD anticipated that demineralization of groundwater or recycled water would be necessary in the future to protect the Yucaipa Groundwater Management Zone and has constructed desalting and associated brine disposal facilities. YVWD shall ensure that the planned demineralization system is operational by June 30, 2015. The Executive Officer may extend this compliance date upon submittal of compelling evidence that the extension is warranted and would not compromise timely implementation of the other maximum benefit program commitments identified in Table 5-9a.

4. Non-potable Water Supply Distribution System (Table 5-9a, # 4)

A key element of YVWD's water resources management plan is the construction of a non-potable supply system to serve a mix of recycled water, diluent from the Wochholz Regional Water Recycling Facility and un-treated imported water, treated backwash water from the Yucaipa Valley Regional Water Filtration Facility and/or storm water for irrigation uses and other direct non-potable reuse. The intent is to minimize the use of potable water for non-potable uses. For use in the Yucaipa Groundwater Management Zone, YVWD will produce a non-potable supply with a running 10-year average TDS concentration equal to or less than 370 mg/L and, in addition, for any non-irrigation reuse that has the potential to affect groundwater quality, the 10-year running average nitrate-nitrogen concentration shall comply with 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to assure that the "maximum benefit" objective of 5 mg/L will be met). To meet this "maximum benefit" objective, YVWD will blend the recycled water with other water sources or desalt the recycled water.

Compliance with the non-potable water supply TDS and/or nitrate-nitrogen objective shall be measured in the non-potable water system as a weighted 10-year average of all water sources added to that system and used within the Yucaipa Groundwater Management Zone.

As part of the Maximum Benefit Annual Report, YVWD shall report on the TDS and nitrogen quality and quantity of all sources of non-potable water and summarize the annual and 10-year annual weighted TDS and nitrogen average concentrations utilized in the Yucaipa Groundwater Management Zone.

5. Recycled Water Recharge (Table 5-9a, # 5)

The use and recharge of recycled water within the Yucaipa Groundwater Management Zone are necessary to maximize the use of the water resources in the Yucaipa area. The demonstration of "maximum benefit" and the continued application of the "maximum benefit" objectives are contingent on the recharge of recycled water to the Yucaipa Groundwater Management Zone of a 10-year annual average (running average) TDS concentration of 370 mg/L and nitrate-nitrogen concentration of 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to

assure that the "maximum benefit" objective of 5 mg/L will be met). These concentrations may be achieved by desalting or other treatment of the recycled water, and/or by blending the recycled water with other sources, such as imported water, storm water and reverse osmosis permeate diluent.

Compliance with these concentrations shall be measured at the point of discharge(s) to the recharge facility as a weighted average concentration of the recycled water and other sources, if any, used for blending.

As part of the Maximum Benefit Annual Report, YVWD shall report on the TDS and nitrogen quality and quantity of all sources of recharged water and summarize the annual and 10-year running annual weighted TDS and nitrogen average concentrations recharged to the Yucaipa Groundwater Management Zone.

6. Antidegradation Salt Mitigation Plan (Table 5-9a, #6)

Within (**1 year of approval by OAL of the BPA**), YVWD shall submit a Salt Mitigation Plan to mitigate excess salt loading above the antidegradation water quality objectives. The Salt Mitigation Plan shall provide a conceptual framework for mitigation projects should the Regional Board make a finding that the lowering of water quality associated with the "maximum benefit" TDS and nitrate-nitrogen water quality objectives that are higher than historical water quality (the "antidegradation" objectives) is not of maximum benefit to the people of the state. The Salt Mitigation Plan must be implemented within 30 days of a Regional Board finding that maximum benefit is no longer being achieved.

7. Ambient Groundwater Quality Determination (Table 5-9a, # 6)

By July 1, 2014, and every three years thereafter, YVWD shall submit a determination of ambient TDS and nitrate-nitrogen quality in the Yucaipa Groundwater Management Zone. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen "antidegradation" water quality objectives for groundwater Management Zones within the region. [Ref. 1].

B. Implementation by Regional Board

1. Revision to Yucaipa Valley Water District NPDES Permit

To implement the "maximum benefit" objectives, the Regional Board will revise the waste discharge and producer/user reclamation requirements permit for YVWD wastewater discharges to reflect the commitments described above, as appropriate. This includes the following:

For surface water discharges that affect the Yucaipa Groundwater Management Zone discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 370 mg/L TDS and 6.7 mg/L TIN. These limits are based on the "maximum benefit" objectives of the Yucaipa Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative objectives are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in YVWD's waste discharge requirements, as necessary and appropriate.

YVWD's waste discharge and producer/user reclamation requirements will require that the recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as storm water, imported water or reverse osmosis diluent, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the Yucaipa Groundwater Management Zone. The use of recycled water for irrigation and other direct re-use purposes in the Yucaipa Groundwater Management Zone shall be limited to the amount that can be blended with other water sources, such as storm water, imported water or reverse osmosis diluent, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the Yucaipa Groundwater Management Zone. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified for recycled water recharge and re-use in the Yucaipa Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

2. Review of Project Status

The Regional Board intends to review periodically YVWD's implementation of the maximum benefit program commitments described above and summarized in Table 5-9a. This review is intended to determine whether the commitments are met, and whether the application of the "maximum benefit" objectives continues to be justified. As indicated above, if, as a result of this review, the Regional Board finds that the YVWD commitments are not met, then the Regional Board may make the finding that the "maximum benefit" objectives are not consistent with the maintenance of water quality that is of maximum benefit to the people of the state, and that the more stringent "antidegradation" objectives for the Yucaipa Management Zone (320 mg/L for TDS and 4.2 mg/L for nitrate-nitrogen; see Chapter 4) must apply instead for regulatory purposes. In the event that the Regional Board makes these determinations, the Regional Board will require that the YVWD implement the Salt Mitigation Plan (see commitment # 6) and mitigate the adverse water quality effects, both on the immediate and downstream waters, which resulted from recycled water discharges based on the "maximum benefit" objectives.

2. San Timoteo Groundwater Management Zone – Yucaipa Valley Water District and the City of Beaumont

The application of the "maximum benefit" objectives established for the San Timoteo Groundwater Management Zone relies on the implementation by both the Yucaipa Valley Water District (YVWD) and the City of Beaumont of the specific program of projects and requirements shown in Table 5-9b [Ref. 10D]. Since the Salt Management Plan was amended in 2004 to incorporate "maximum benefit" commitments applicable to the San Timoteo Management Zone, both YVWD and the City of Beaumont have been engaged in implementing those commitments.

As discussed above, YVWD operates a wastewater treatment facility that discharges a portion of its treated effluent to San Timoteo Creek, Reach 3, which overlies and recharges the San Timoteo Groundwater Management Zone. Similarly, the City of Beaumont provides sewage collection and treatment services within its service area, and a portion of the treated wastewater discharged to Reach 3 of San Timoteo Creek, also recharges the San Timoteo Groundwater Management Zone. Surface water discharges by both YVWD and the City affect groundwater quality in the San Timoteo Groundwater Management Zone. Consistent with the 2004 "maximum benefit" commitments, both the District and the City must identify and implement an acceptable plan to address the adverse water quality impacts of their wastewater discharges.

Dilution of recycled water with water to meet the 400 mg/L TDS concentration and the 5 mg/L nitrate-N concentration recycled water recharge and direct use requirements will be limited to new recharge such as reverse osmosis permeate (diluent), imported water or new storm water. New storm water recharge is defined as storm water recharged in quantities greater than historical amounts (net increase) over the groundwater management zone since January 1, 2004. January 2004 corresponds to the month and year when the Regional Board authorized the original maximum benefit objectives and compliance commitments by adopting Resolution No. R8-2004-0001.

Table 5-9b

San Timoteo Groundwater Management Zone
Maximum Benefit Commitments

Responsible Agencies – Yucaipa Valley Water District and the City of Beaumont

<u>Description of Commitment</u>	<u>Compliance Date – as soon as possible, but no later than</u>
<u>1. Surface Water Monitoring Program</u> <u>a. Submit Draft Revised Monitoring Program to Regional Board</u> <u>b. Implement Revised Monitoring Program</u> <u>c. Submit Draft Revised Monitoring Program(s) (subsequent to that required in "a", above) to Regional Board</u> <u>d. Implement Revised Monitoring Program(s)</u> <u>e. Annual data report submittal</u>	<u>a. (**30 days from Regional Board approval of BPA)</u> <u>b. Upon Executive Officer approval</u> <u>c. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Regional Board Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u> <u>d. Upon Executive Officer approval</u> <u>e. April 15th</u>
<u>2. Groundwater Monitoring Program</u> <u>a. Submit Draft Revised Monitoring Program(s)</u> <u>b. Implement revised monitoring plan(s)</u> <u>c. Annual data report submittal</u>	<u>a. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Regional Board Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u> <u>b. Upon Executive Officer approval</u> <u>c. April 15th</u>
<u>3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u> <u>Complete construction of Desalter and Brine Disposal Facilities</u>	<u>June 30, 2015 (or as provided by the Executive Officer - see text below)</u>

Table 5-9b

San Timoteo Groundwater Management Zone
Maximum Benefit Commitments

Responsible Agencies – Yucaipa Valley Water District and the City of Beaumont

<u>Description of Commitment</u>	<u>Compliance Date – as soon as possible, but no later than</u>
4. <u>City of Beaumont, Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u> a. <u>Submit detailed plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to operational as soon as possible but no later than 5 years from date of Executive Officer approval of plan/schedule or as provided by the Executive Officer (see text below).</u> b. <u>Implement the plan and schedule</u>	a. <u>January 30, 2015</u> b. <u>Upon Executive Officer approval</u>
5. <u>YVWD, City of Beaumont Non-potable water supply</u> <u>Implement non-potable water supply system to serve water for irrigation purposes and direct non-potable reuse. The non-potable supply used in the San Timoteo Groundwater Management Zone shall comply with a 10-year running average TDS concentration of 400 mg/L or less, and in addition, for any non-irrigation reuse that has the potential to affect groundwater quality, the nitrate-nitrogen shall be less than or equal to the 5 mg/L nitrate-nitrogen "maximum benefit" objective (taking the nitrogen loss coefficient into consideration).</u>	<u>December 31, 2015</u>
6. <u>Recycled water recharge/habitat maintenance discharge</u> <u>The recharge of recycled water in the San Timoteo Groundwater Management Zone or discharge to San Timoteo Creek to maintain the riparian habitat shall be limited to the amount that can be blended with other recharge sources or reverse osmosis diluent to achieve a 10-year running average equal to or less than the 400 mg/L "maximum benefit" TDS objective and less than or equal to the 5 mg/L nitrate-nitrogen "maximum benefit" objective (taking the nitrogen loss coefficient into consideration).</u> a. <u>Submit for Executive Officer approval, a proposed methodology for computing baseline and new storm water recharge.</u> <u>The methodology will be posted for public comment for 30 days. If there are significant comments received, the Executive Officer will present the report to the Regional Board for its consideration at a regularly scheduled meeting.</u> b. <u>Submit baseline report of amount, locations, and TDS and</u>	<u>Compliance must be achieved by end of 10th year after initiation of recycled water use/recharge operations.</u> a. <u>6 months prior to initiation of construction of anybasin/other facility to support enhanced storm water/imported water recharge.</u> b. <u>1 year from Executive Officer approval of methodology.</u>

Table 5-9b

San Timoteo Groundwater Management Zone
Maximum Benefit Commitments

Responsible Agencies – Yucaipa Valley Water District and the City of Beaumont

<u>Description of Commitment</u>	<u>Compliance Date – as soon as possible, but no later than</u>
<u>nitrogen quality of "new" storm water/imported water recharge per the approved methodology (#6a).</u> c. <u>Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For storm water recharge used for blending, submit documentation that the recharge is the result of YVWD and/or City of Beaumont enhanced recharge facilities/programs.</u>	c. <u>Annually, by April 15th, after construction of facilities/implementation of programs to support enhanced recharge.</u>
<u>7. Improve quality of surface water discharges to the San Timoteo Groundwater Management Zone</u> a. <u>Submit plan and schedule to comply with underlying San Timoteo Groundwater Management Zone Maximum Benefit TDS and nitrate-nitrogen water quality objectives</u> b. <u>Implement upon approval</u>	a. <u>(*30 days from Regional Board approval of BPA*)</u> b. <u>Upon Executive Officer approval</u>
<u>8. Antidegradation Objectives Salt Mitigation Plan</u> a. <u>Submit a proposed Salt Mitigation Plan and Implementation Schedule</u> b. <u>Implement Salt Mitigation Plan</u>	a. <u>Within (**1 year from OAL approval of BPA)</u> b. <u>Within 30 days of Regional Board finding that maximum benefit no longer being achieved</u>
<u>9. Ambient groundwater quality determination</u>	<u>July 1, 2014 and every 3 years thereafter</u>

A. Description of Yucaipa Valley Water District (YVWD), City of Beaumont Commitments for the San Timoteo Management Zone

1. Surface Water Monitoring Program (Table 5-9b, # 1)

A surface water monitoring program was developed, approved and implemented in response to the maximum benefit commitments initially incorporated in the Basin Plan in 2004 (Resolution No. R8-2004-0001). The Regional Board approved the Surface Water Monitoring Program in 2005 (Resolutions No. R8-2005-0065 and R8-2005-0066). Subsequently, the need to revise the monitoring program was recognized and appropriate amendments were adopted in 2014 (Resolution No. R8-2014-0005). These include the requirement that by (*30 days from

Regional Board approval of the BPA**), YVWD and the City of Beaumont shall submit a revised surface water monitoring program to the Regional Board for approval. The monitoring program must be implemented upon Executive Officer approval.

It is expected that the monitoring program will be reviewed as it is implemented over time, and that further updates may be necessary. YVWD and the City of Beaumont committed to review the surface water monitoring program (and the groundwater monitoring program, see #2, below) as part of the determination of ambient groundwater quality, which occurs every three years pursuant to Basin Plan requirements (see #6, below). Though considered unlikely, it is possible that more frequent review and revision of these monitoring programs may be necessary. Accordingly, the Basin Plan requires review of the surface water monitoring program in coordination with the ambient quality determination and, further, that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring is to be implemented upon Executive Officer approval.

An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted by April 15th of each year.

2. Groundwater Monitoring Program (Table 5-9a, #2)

In response to the maximum benefit program requirements established in 2004 (Resolution No. R8- 2004-0001), in 2005, YVWD and the City of Beaumont submitted a proposed groundwater monitoring program. The Regional Board approved a groundwater monitoring program to determine ambient water quality in the Yucaipa and San Timoteo Groundwater Management Zones (Resolutions No. R8-2005-0065 and R8-2005-0066). The purpose of the groundwater monitoring program is to identify the effects of the implementation of the San Timoteo Groundwater Management Zone "maximum benefit" water quality objectives on water levels and water quality within the San Timoteo Groundwater Management Zone. The groundwater monitoring program has been implemented since 2005. YVWD and the City of Beaumont have since installed additional wells as part of revised groundwater monitoring workplans to ensure adequate data are collected for ambient quality determination. The workplans were approved in 2009 (Resolution No. R8-2009-0034 for YVWD and R8-2009-0035 for the City of Beaumont).

The existing groundwater monitoring implemented by the City of Beaumont and YVWD to comply with the Maximum Benefit program authorized by the 2004 amendments to the salt management plan shall be continued into the future on a cooperative basis until a new monitoring plan is approved by the Executive Officer. Any new monitoring plan developed by the City of Beaumont and/or YVWD shall preserve the geospatial distribution of groundwater wells and the sampling of those wells utilized in the existing Regional Board-approved maximum benefit monitoring program.

As noted above, the groundwater monitoring program will be reviewed as part of regular ambient groundwater quality determinations and may be revised. Once again, more frequent review and revision may be necessary as the monitoring program is implemented over time. Accordingly, the Basin Plan requires that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring program is to be implemented upon Executive Officer approval.

An annual report, including all raw data and summarizing the results of the approved

groundwater monitoring program, shall be submitted to the Regional Board by April 15th of each year.

3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9b, #3)

YVWD anticipated that demineralization of groundwater or recycled water would be necessary in the future to protect the San Timoteo Groundwater Management Zone and has planned and designed desalting and associated brine disposal facilities. YVWD shall ensure that the planned desalter system is operational by June 30, 2015. The Executive Officer may extend this compliance date upon submittal of compelling evidence that the extension is warranted and would not compromise timely implementation of the other maximum benefit program commitments identified in Table 5-9b.

4. City of Beaumont Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9b, #4)

The City of Beaumont shall construct and operate desalting facilities and brine disposal facilities to improve recycled water quality and/or other sources of non-potable supply. A detailed desalter/brine line plan and schedule shall be submitted by January 30, 2015. The schedule shall assure that these facilities are in place within 5 years of Executive Officer approval. The Executive Officer may extend this compliance date upon submittal of compelling evidence that the extension is warranted and would not compromise timely implementation of the other maximum benefit program commitments identified in Table 5-9b.

5. YVWD/City of Beaumont Non-potable Water Supply Distribution System (Table 5-9b, # 5)

Both YVWD and the City of Beaumont are planning for the construction of a non-potable supply system to serve a mix of recycled water, un-treated imported water, reverse osmosis permeate (diluent) and/or storm water for irrigation uses and direct non-potable reuse. The intent is to minimize the use of potable water for non-potable uses. Both YVWD and/or the City of Beaumont will produce a non-potable supply for use within the San Timoteo Groundwater Management Zone with a running ten-year average TDS concentration of 400 mg/L, and, in addition, for any non-irrigation reuse that has the potential to affect groundwater quality, the 10-year running average nitrate-nitrogen concentration shall comply with 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to assure that the "maximum benefit" objective of 5 mg/L will be met). To meet this "maximum benefit" objective, YVWD/City of Beaumont will blend the recycled water with other water sources or desalt the recycled water.

Compliance with the non-potable water supply TDS and/or nitrate-nitrogen objective shall be measured in the non-potable water system as a weighted 10-year average of all water sources added to that system and used within the San Timoteo Groundwater Management Zone.

As part of the Maximum Benefit Annual Report, YVWD and the City of Beaumont shall report on the TDS and nitrogen quality and quantity of all sources of non-potable water and summarize the annual and 10-year annual weighted TDS and nitrogen average concentrations utilized in the San Timoteo Groundwater Management Zone.

6. Recycled Water Recharge/ Riparian Habitat Maintenance Discharge (Table 5-9b, #6)

The use and recharge of recycled water within the San Timoteo Groundwater Management Zone or the discharge of recycled water to San Timoteo Creek to maintain the riparian habitat

and the demonstration of "maximum benefit" are contingent on the recharge/discharge of recycled water as a 10-year annual average (running average) TDS concentration of 400 mg/L and nitrate-nitrogen concentration of 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to assure that the "maximum benefit" objective of 5 mg/L will be met). These concentrations may be achieved by desalting or other treatment of the recycled water, and/or by blending the recycled water with other sources, such as imported water, reverse osmosis permeate (diluent) and/or storm water.

Compliance with these concentrations shall be measured at the point of discharge(s) to the recharge facility or at the end of pipe for a recycled water discharge as a weighted average concentration of the recycled water and other sources, if any, used for blending.

As part of the Maximum Benefit Annual Report, YVWD and/or the City of Beaumont shall report on the TDS and nitrogen quality and quantity of all sources of recharged water and summarize the annual and 10-year annual weighted TDS and nitrogen average concentrations recharged to the San Timoteo Groundwater Management Zone.

7. Improve Surface Water Discharge Quality to the San Timoteo Groundwater Management Zone (Table 5-9b, #7)

YVWD and the City of Beaumont wastewater discharges to the unlined reach of San Timoteo Creek impact the quality of the San Timoteo Groundwater Management Zone. In order to protect underlying groundwater Management Zone quality, by (*30 days from Regional Board approval of this Basin Plan amendment), the City of Beaumont and YVWD shall submit a proposed plan and schedule to improve the quality of wastewater discharged to the portion of San Timoteo Creek overlying the San Timoteo Groundwater Management Zone in order to assure compliance with the Groundwater Management Zone "maximum benefit" objectives. A contingency plan and schedule to meet the "antidegradation" objectives for the Groundwater Management Zone shall also be identified and implemented upon a finding by the Regional Board that "maximum benefit" is not demonstrated and that the "antidegradation" objectives apply. The plan must be implemented upon Executive Officer approval.

8. Antidegradation Objectives Salt Mitigation Plan (Table 5-9b, #8)

Within (**1 year of approval by OAL of the BPA**), YVWD and the City of Beaumont shall submit a Salt Mitigation Plan to mitigate excess salt loading above the antidegradation water quality objectives. The Salt Mitigation Plan shall provide a conceptual framework for mitigation projects should the Regional Board make a finding that the lowering of water quality associated with the "maximum benefit" TDS and nitrate-nitrogen water quality objectives that are higher than historical water quality (the "antidegradation" objectives) is not of maximum benefit to the people of the state. The Salt Mitigation Plan must be implemented within 30 days of a Regional Board finding that maximum benefit is no longer being achieved.

9. Ambient Groundwater Quality Determination (Table 5-9b, # 8)

By July 1, 2014, and every three years thereafter, YVWD and the City of Beaumont shall submit a determination of ambient TDS and nitrate-nitrogen quality in the San Timoteo Groundwater Management Zone. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen "antidegradation" water quality objectives for groundwater Management Zones within the region. [Ref. 1].

B. Implementation by Regional Board

1. Revision to Yucaipa Valley Water District NPDES Permit

To implement the "maximum benefit" objectives, the Regional Board will revise the waste discharge requirements and producer/user reclamation requirements for the YVWD wastewater discharges to reflect the commitments described above, as appropriate. This includes the following:

For surface water discharges that affect the San Timoteo Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average at the end of pipe not to exceed 400 mg/L TDS and 6.7 mg/L TIN. These limits are based on the "maximum benefit" objectives of the San Timoteo Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative objectives are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in the YVWD's waste discharge requirements, as necessary and appropriate.

YVWD's waste discharge requirements will require that any planned recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as storm water, reverse osmosis permeate (diluent) or imported water, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the San Timoteo Groundwater Management Zone. The use of recycled water for irrigation and other direct re-use shall be limited to the amount that can be blended with other water sources, such as storm water, reverse osmosis permeate (diluent), or imported water, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the San Timoteo Groundwater Management Zone.

Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified for recycled water recharge and re-use in the San Timoteo Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

2. Revision to the City of Beaumont NPDES Permit

To implement the "maximum benefit" objectives, the Regional Board will revise the waste discharge requirements for the City of Beaumont's wastewater discharges to reflect the commitments described above, as appropriate. This includes the following:

For discharges to the San Timoteo Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average not to exceed 400 mg/L TDS and 6.7 mg/L TIN to be determined at the end of pipe. These limits are based on the "maximum benefit" objectives of the San Timoteo Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative limits are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in the City's waste discharge requirements, as necessary and appropriate.

The City of Beaumont's waste discharge requirements will require that any planned recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as storm water or imported water, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the San Timoteo Groundwater Management Zone. The use of recycled water for irrigation and other direct reuse shall be limited to the amount that can be blended with other water sources, such as storm water or imported water, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the San Timoteo Groundwater Management Zone.

Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified for recycled water recharge and re-use in the San Timoteo Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

3. Review of Project Status

The Regional Board intends to review periodically YVWD's and the City of Beaumont's implementation of the maximum benefit program commitments described above and summarized in Table 5-9b. This review is intended to determine whether the commitments are met, and whether the application of the "maximum benefit" objectives continues to be justified. As indicated above, if, as a result of this review, the Regional Board finds that the YVWD and/or the City of Beaumont commitments are not met, then the Regional Board may make the finding that the "maximum benefit" objectives are not consistent with the maintenance of water quality that is of maximum benefit to the people of the state, and that the more stringent "antidegradation" objectives for the San Timoteo Groundwater Management Zone (300 mg/L for TDS and 2.7 mg/L for nitrate-nitrogen; see Chapter 4) must apply instead for regulatory purposes. In the event that the Regional Board makes these determinations, the Regional Board will require that YVWD and/or the City of Beaumont, either individually or collectively, implement the Salt Mitigation Plan (see commitment # 8) and mitigate the adverse water quality effects, both on the immediate and downstream waters, which resulted from recycled water discharges based on the "maximum benefit" objectives.

3. Beaumont Groundwater Management Zone – Yucaipa Valley Water District, the City of Beaumont, the City of Banning, Beaumont Cherry Valley Water District, San Geronio Pass Agency

The application of the “maximum benefit” objectives established for the Beaumont Groundwater Management Zone is contingent on the implementation of commitments by the YVWD, the City of Beaumont, the City of Banning, Beaumont Cherry Valley Water District (BCVWD), and the San Geronio Pass Water Agency (Pass Agency) to implement a specific water and wastewater resources management program identified in the Regional Strategy [Ref. 10D]. This program is part of a coordinated effort by these agencies to develop and implement projects that will assure reliable water supplies to meet rapidly increasing demands in this area. The Regional Strategy entails enhanced recharge of native and recycled water, maximizing the direct use of recycled water, optimizing the direct use of imported water, recharge and conjunctive use. The maximum benefit commitments identified in the Regional Strategy for the Beaumont Groundwater Management Zone will be implemented by the City of Beaumont, BCVWD, YVWD, the Pass Agency and the City of Banning. The Regional Strategy forms the basis for the Beaumont Groundwater Management Zone maximum benefit program discussed below.

Wastewater collection and treatment services are provided by the City of Beaumont, the City of Banning, as well as YVWD. The City of Beaumont discharges tertiary treated wastewater to Cooper’s Creek, a tributary of San Timoteo Creek, Reach 3. This unlined reach of the Creek overlies and recharges both the Beaumont and San Timoteo Groundwater Management Zones. The City of Banning does not currently utilize recycled water in the Beaumont Management Zone. The City of Banning has selected to participate in the Maximum Benefit program and commitments if it becomes necessary to use recycled water.

Table 5-9c identifies the projects and requirements that must be implemented by the cities of Beaumont and Banning, YVWD, BCVWD, and the Pass Agency to demonstrate that water quality consistent with maximum benefit to the people of the state will be maintained with the applications of the “maximum benefit” objectives. Table 5-9c also specifies an implementation schedule. The Regional Board will revise waste discharge requirements for the City of Beaumont and YVWD, and will work with the Colorado River Water Board to ensure discharges from the City of Banning comply with the maximum benefit requirements. The Regional Board will also consider issuance of waste discharge requirements for BCVWD and take other actions as necessary to require that these commitments be met by the responsible parties.

Dilution of recycled water with water to meet the 330 mg/L TDS concentration and the 5 mg/L nitrate-N concentration recycled water recharge and direct use requirements will be limited to new water recharge such as reverse osmosis permeate (diluent), imported water or new storm water. New storm water recharge is defined as storm water recharged in quantities greater than historical amounts (net increase) over the groundwater management zone since January 1, 2004. January 2004 corresponds to the month and year when the Regional Board authorized the original maximum benefit objectives and compliance commitments by adopting Resolution No. R8-2004-0001.

Table 5-9c
Beaumont Groundwater Management Zone
Maximum Benefit Commitments

Responsible Agencies – Yucaipa Valley Water District, City of Beaumont, City of Banning, San Geronio
Pass Water Agency, Beaumont Cherry Valley Water District

Description of Commitment	Compliance Date -- as soon as possible, but no later than
<u>1. Surface Water Monitoring Program</u> <u>a. Submit Draft Revised Monitoring Program to Regional Board</u> <u>b. Implement Revised Monitoring Program</u> <u>c. Submit Draft Revised Monitoring Program(s) (subsequent to that required in "a", above) to Regional Board</u> <u>d. Implement Revised Monitoring Program (s)</u> <u>e. Annual data report submittal</u>	<u>a. (**30 days from Regional Board approval of BPA)</u> <u>b. Upon Executive Officer approval</u> <u>c. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Regional Board Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u> <u>d. Upon Executive Officer approval</u> <u>e. April 15th</u>
<u>2. Groundwater Monitoring Program</u> <u>a. Submit Draft Revised Monitoring Program(s)</u> <u>b. Implement revised monitoring plan(s)</u> <u>c. Annual data report submittal</u>	<u>a. Every three years, in coordination with ambient water quality determination (#6, below) or more frequently upon notification of the need to do so from the Regional Board Executive Officer and in accordance with the schedule prescribed by the Executive Officer</u> <u>b. Upon Executive Officer approval</u> <u>c. April 15th</u>
<u>3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u> <u>Complete construction of Desalter and Brine Disposal Facilities</u>	<u>June 30, 2015 (or as provided by the Executive Officer - see text below)</u>
<u>4. City of Beaumont, Wastewater and/or Groundwater Desalter(s) and Brine Disposal Facilities</u> <u>a. Submit detailed plan and schedule for construction of desalter(s) and brine disposal facilities. Facilities are to operational as soon as possible but no later than 5 years from date of Executive Officer approval of plan/schedule or as</u>	<u>a. January 30, 2015</u>

Table 5-9c
Beaumont Groundwater Management Zone
Maximum Benefit Commitments

Responsible Agencies – Yucaipa Valley Water District, City of Beaumont, City of Banning, San Geronio Pass Water Agency, Beaumont Cherry Valley Water District

Description of Commitment	Compliance Date – as soon as possible, but no later than
<u>provided by the Executive Officer (see text below).</u> <u>b. Implement the plan and schedule</u>	<u>b. Upon Executive Officer approval</u>
<u>5. City of Banning, Wastewater and/or Groundwater Salt Mitigation Plan</u> <u>a. Submit detailed plan and schedule for achieving compliance with the maximum benefit objectives.</u> <u>b. Implement the plan and schedule</u>	<u>a. 6 months prior to initiation of the use recycled water application or recharge</u> <u>b. Upon Executive Officer approval</u>
<u>6. Non-potable recycled water supply</u> <u>YVWD, the City of Beaumont, the City of Banning (at the onset of recycled water use in the Beaumont Basin), BCVWD and the Pass Agency shall implement non-potable water supply systems (utilizing recycled water) to serve water for irrigation purposes and direct non-potable reuse. The non-potable supplies used in the Beaumont Groundwater Management Zone shall comply with a 10-year running average TDS concentration of 330 mg/L or less and, in addition, for any non-irrigation reuse that has the potential to affect groundwater quality, the nitrate-nitrogen shall be less than or equal to the 5 mg/L nitrate-nitrogen "maximum benefit" objective (taking the nitrogen loss coefficient into consideration).</u>	<u>December 31, 2015</u>
<u>7. Recycled water recharge</u> <u>The recharge of recycled water in the Beaumont Groundwater Management Zone shall be limited to the amount that can be blended with other recharge sources or reverse osmosis diluent to achieve a 10-year running average equal to or less than the 330 mg/L "maximum benefit" TDS objective and less than or equal to the 5 mg/L nitrate-nitrogen "maximum benefit" objective (taking the nitrogen loss coefficient into consideration).</u> <u>Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations.</u> <u>For any discharger proposing to utilize "new" storm water as a blending source, the following steps must be followed:</u> <u>a. Submit for Executive Officer approval, a report that identifies the methodology used in calculating baseline (2004) and "new" storm water (post 2004) recharge. The report shall identify the amount, locations, TDS and nitrogen quality of storm water recharge and any imported water recharge. Further, the report shall identify the manner in which the enhanced storm</u>	<u>Compliance must be achieved by end of 10th year after initiation of recycled water use/recharge operations.</u> <u>Annually, by April 15th, after initiation construction of facilities/implementation of programs to support enhanced recharge.</u> <u>a. 6 months prior to initiation of construction of any basins/other facilities to support enhanced storm water/imported water recharge</u>

Table 5-9c
Beaumont Groundwater Management Zone
Maximum Benefit Commitments

Responsible Agencies – Yucaipa Valley Water District, City of Beaumont, City of Banning, San Geronio Pass Water Agency, Beaumont Cherry Valley Water District

Description of Commitment	Compliance Date – as soon as possible, but no later than
<u>water/imported water recharge facility will assure, individually or with other facilities, compliance with the 330 mg/L TDS and 5 mg/L nitrate-nitrogen 10-year running average "maximum benefit" objective.</u> <u>The report will be posted for public comment for 30 days. If there are significant adverse comments received on this report, the Executive Officer will present the report to the Regional Board for its consideration at a regularly scheduled meeting.</u> <u>b. Submit 5-year plan for implementation of additional storm water recharge facilities to ensure compliance with the 330 mg/L TDS and the 5 mg/L 10-year running average "maximum benefit" objective.</u>	<u>b. Submit as part of each Report of Waste Discharge (ROWD)</u>
<u>8. Antidegradation Salt Mitigation Plan</u> <u>a. Submit a proposed Salt Mitigation Plan and Implementation Schedule</u> <u>b. Implement Salt Mitigation Plan</u>	<u>a. Within (**1 year from OAL approval of BPA)</u> <u>b. Within 30 days of Regional Board finding that maximum benefit no longer being achieved</u>
<u>9. Ambient groundwater quality determination</u>	<u>July 1, 2014 and every 3 years thereafter</u>

A. Description of Yucaipa Valley Water District (YVWD), City of Beaumont, Beaumont Cherry Valley Water District (BCVWD), City of Banning, San Geronio Pass Water Agency (Pass Agency) Commitments for the Beaumont Management Zone

1. Surface Water Monitoring Program (Table 5-9c, # 1)

A surface water monitoring program was developed, approved and implemented in response to the maximum benefit commitments initially incorporated in the Basin Plan in 2004 (Resolution No. R8-2004-0001). The Regional Board approved the Surface Water Monitoring Program in 2005 (Resolution No. R8-2005-0066). Subsequently, the need to revise the monitoring program was recognized and appropriate amendments were adopted in 2014 (Resolution No. R8-2014-0005). These include the requirement that by (**30 days from Regional Board approval of the BPA**), YVWD BCVWD, the Pass Agency, the City of Beaumont and the City of Banning shall submit a revised surface water monitoring program to the Regional Board for approval. The monitoring program must be implemented upon Executive Officer approval.

It is expected that the monitoring program will be reviewed as it is implemented over time, and that further updates may be necessary. YVWD, the City of Beaumont, the City of Banning, the Pass Agency and BCVWD committed to review the surface water monitoring program (and the groundwater monitoring program, see #2, below) as part of the determination of ambient groundwater quality, which occurs every three years pursuant to Basin Plan requirements (see #6, below). Though considered unlikely, it is possible that more frequent review and revision of these monitoring programs may be necessary. Accordingly, the Basin Plan requires review of the surface water monitoring program in coordination with the ambient quality determination and, further, that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring program is to be implemented upon Executive Officer approval.

An annual report summarizing all data collected for the year and evaluating compliance with relevant surface water objectives shall be submitted by April 15th of each year.

2. Groundwater Monitoring Program (Table 5-9c, #2)

In response to the maximum benefit program requirements established in 2004 (Resolution No. R8- 2004-0001), a proposed groundwater monitoring program was submitted in 2005. The Regional Board approved a groundwater monitoring program to determine ambient water quality in the Beaumont Groundwater Management Zone (Resolution No. R8-2005-0066). The purpose of the Groundwater Monitoring Program is to identify the effects of the implementation of the Beaumont Groundwater Management Zone maximum benefit water quality objectives on water levels and water quality within the Beaumont Groundwater Management Zone. The groundwater monitoring program has been implemented since 2005 and YVWD, the City of Beaumont, the City of Banning, the Pass Agency and BCVWD must continue to implement that program.

The existing groundwater monitoring implemented by the City of Beaumont and YVWD to comply with the Maximum Benefit program authorized by the 2004 amendments to the salt management plan shall be continued into the future on a cooperative basis by all of the maximum benefit partners until a new monitoring plan is approved by the Executive Officer. Any new monitoring plan developed shall preserve the geospatial distribution of groundwater wells and the sampling of those wells utilized in the existing Regional Board-approved maximum benefit monitoring program.

As noted above, the groundwater monitoring program will be reviewed as part of regular ambient groundwater quality determinations and may be revised. Once again, more frequent review and revision may be necessary as the monitoring program is implemented over time. Accordingly, the Basin Plan requires that draft revised monitoring programs be submitted upon notification by the Regional Board's Executive Officer of the need to do so. The schedule for the submittal will be prescribed by the Executive Officer. Any such revision to the monitoring program is to be implemented upon Executive Officer approval.

An annual report, including all raw data and summarizing the results of the approved groundwater monitoring program, shall be submitted to the Regional Board by April 15th of each year.

3. YVWD Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9c, #3)

YVWD anticipated that demineralization of groundwater or recycled water would be necessary in the future to protect the Beaumont Groundwater Management Zone and has constructed desalting and associated brine disposal facilities. YVWD shall ensure that the planned desalter system is operational by June 30, 2015. The Regional Board may extend this compliance date upon submittal of compelling evidence that the extension is warranted and would not compromise timely implementation of the other maximum benefit program commitments identified in Table 5-9a.

4. City of Beaumont Wastewater and/or Groundwater Desalter(s) and Brine Disposal (Table 5-9c, #4)

The City of Beaumont shall construct and operate desalting facilities and brine disposal facilities to improve recycled water quality and/or other sources of non-potable supply. A detailed desalter/brine line plan and schedule shall be submitted by January 30, 2015. The schedule shall assure that these facilities are in place within 5 years of Executive Officer approval. The Executive Officer may extend the compliance date upon submittal of compelling evidence that the extension is warranted and would not compromise timely implementation of the other maximum benefit program commitments identified in Table 5-9c.

5. City of Banning Salt Mitigation Plan (Table 5-9c, #5)

The City of Banning shall submit a plan and schedule to improve recycled water quality and/or other sources of non-potable supply. The plan and schedule shall be submitted 6 months prior to the initiation of recycled water application or recharge and must be implemented upon Executive Officer approval.

6. Non-potable Recycled Water Supply Distribution System (Table 5-9c, # 6)

A key element of resources management plan in areas overlying the Beaumont Groundwater Management Zone is the construction of a non-potable supply system to serve a mix of recycled water and un-treated imported water and/or storm water for irrigation uses and direct non-potable reuse. The intent is to minimize the use of potable water for non-potable uses. YVWD, the City of Beaumont and the City of Banning will produce a non-potable supply with a running ten-year average TDS concentration for the Beaumont Groundwater Management Zone of 330 mg/L and, in addition, for any non-irrigation reuse that has the potential to affect groundwater quality, the 10-year running average nitrate-nitrogen concentration shall comply with 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to assure that the "maximum benefit" objective of 5 mg/L will be met). To meet this "maximum benefit" objective, YVWD, the City of Beaumont and the City of Banning, BCVWD and San Geronimo Pass Agency will blend the recycled water with other water sources or desalt the recycled water as needed.

Compliance with the non-potable water supply TDS and nitrate-nitrogen objective shall be measured in the non-potable water system as a weighted 10-year running average of all water sources added to that system and used within the Beaumont Groundwater Management Zone.

As part of the Maximum Benefit Annual Report, YVWD, BCVWD, the Pass Agency, the City of Beaumont and the City of Banning shall report on the TDS and nitrogen quality and quantity of all sources of non-potable water and summarize the annual and 10-year annual weighted TDS

and nitrogen average concentrations utilized in the Beaumont Groundwater Management Zone.

7. Recycled Water Recharge (Table 5-9c, # 7)

The use and recharge of recycled water within the Beaumont Groundwater Management Zone are necessary to maximize the use of the water resources of the Beaumont area. The demonstration of "maximum benefit" and the continued application of the "maximum benefit" objectives are contingent on the recharge of recycled water to the Beaumont Groundwater Management Zone of a 10-year annual average (running average) TDS concentration of 330 mg/L and nitrate-nitrogen concentration of 6.7 mg/L (taking the 25% nitrogen loss coefficient into account to assure that the "maximum benefit" objective of 5 mg/L will be met). These concentrations may be achieved by desalting or other treatment of the recycled water, and/or by blending the recycled water with other sources, such as imported water and/or storm water.

Compliance with these concentrations shall be measured at the point of discharge(s) to the recharge facility as a weighted average concentration of the recycled water and other sources, if any, used for blending.

As part of the Maximum Benefit Annual Report, YVWD, BCVWD, the Pass Agency, the City of Beaumont and the City of Banning shall report on the TDS and nitrogen quality and quantity of all sources of recharged water and summarize the annual and 10-year annual weighted TDS and nitrogen average concentrations recharged to the Beaumont Groundwater Management Zone.

8. Antidegradation Objectives Salt Mitigation Plan (Table 5-9c, #8)

Within (**1 year of approval by OAL of the BPA**), YVWD, BCVWD, the Pass Agency, the City of Beaumont and the City of Banning shall submit a Salt Mitigation Plan to mitigate excess salt loading above the antidegradation water quality objectives. The Salt Mitigation Plan shall provide a conceptual framework for mitigation projects should the Regional Board make a finding that the lowering of water quality associated with the "maximum benefit" TDS and nitrate-nitrogen water quality objectives that are higher than historical water quality (the "antidegradation" objectives) is not of maximum benefit to the people of the state. The Salt Mitigation Plan must be implemented within 30 days of a Regional Board finding that maximum benefit is no longer being achieved.

9. Ambient Groundwater Quality Determination (Table 5-9c, # 8)

By July 1, 2014, and every three years thereafter, YVWD, BCVWD, the Pass Agency, the City of Beaumont and the City of Banning shall submit a determination of ambient TDS and nitrate-nitrogen quality in the Beaumont Groundwater Management Zone. This determination shall be accomplished using methodology consistent with the calculation (20-year running averages) used by the Nitrogen/TDS Task Force to develop the TDS and nitrate-nitrogen "antidegradation" water quality objectives for groundwater Management Zones within the region. [Ref. 1].

B. Implementation by Regional Board

1. Revision to Yucaipa Valley Water District NPDES Permit

To implement the "maximum benefit" objectives, the Regional Board will revise the waste discharge requirements and producer/user reclamation requirements for the YVWD wastewater discharges to reflect the commitments described above, as appropriate. This includes the following:

For any surface water discharges that affect the Beaumont Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average at the end of pipe not to exceed 330 mg/L TDS and 6.7 mg/L TIN. These limits are based on the "maximum benefit" objectives of the Beaumont Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative objectives are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in the YVWD's waste discharge requirements, as necessary and appropriate.

YVWD's waste discharge requirements will require that any planned recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as new storm water or imported water, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone. The use of recycled water for irrigation and other direct re-use shall be limited to the amount that can be blended with other water sources, such as storm water or imported water, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone.

Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified for recycled water recharge and re-use in the Beaumont Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

2. Revision to the City of Beaumont NPDES Permit

To implement the "maximum benefit" objectives, the Regional Board will revise the waste discharge requirements and producer/user reclamation requirements for the City of Beaumont wastewater discharges to reflect the commitments described above, as appropriate. This includes the following:

For surface water discharges that affect the Beaumont Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average at the end of pipe not to exceed 330 mg/L TDS and 6.7 mg/L TIN. These limits are based on the "maximum benefit" objectives of the Beaumont Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative objectives are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in the City of Beaumont's waste discharge requirements, as necessary and appropriate.

The City of Beaumont's waste discharge requirements will require that any planned recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as storm water or imported water, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone. The use of recycled water for irrigation and other direct re-use shall be limited to the amount that can be blended with other water sources, such as storm water or imported water, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone.

Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified for recycled water recharge and re-use in the Beaumont Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

3. Revision of City of Banning NPDES Permit

Discharges from the City of Banning are currently regulated by the Colorado River Water Board. To implement the "maximum benefit" objectives, the Santa Ana Water Board will work with the Colorado River Water Board to revise the NPDES permit for the City of Banning's wastewater discharge to reflect the commitments described below, as appropriate.

For any surface water discharges that affect the Beaumont Groundwater Management Zone, discharge limits for TDS and TIN will be specified as an annual volume-weighted average at the end of pipe not to exceed 330 mg/L TDS and 6.7 mg/L TIN. These limits are based on the "maximum benefit" objectives of the Beaumont Groundwater Management Zone shown in Table 4-1 and take the nitrogen loss coefficient into account. Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified and will apply should the Regional Board find that maximum benefit is not demonstrated. These alternative objectives are also specified in Table 4-1. Compliance schedules for these alternative limits will be specified in the City of Banning's waste discharge requirements, as necessary and appropriate.

The City of Banning waste discharge requirements will require that any planned recharge of recycled water shall be limited to the amount that can be blended with other water sources, such as storm water or imported water, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone. The use of recycled water for irrigation and other direct re-use shall be limited to the amount that can be blended with other water sources, such as storm water or imported water, to achieve 10-year running average concentrations equal to or less than the "maximum benefit" TDS and nitrate-nitrogen objectives for the Beaumont Groundwater Management Zone.

Alternative TDS and nitrate-nitrogen limitations based on the "antidegradation" objectives will also be specified for recycled water recharge and re-use in the Beaumont Groundwater Management Zone and will apply if the Regional Board finds that the maximum benefit commitments are not met.

4. Review of Project Status

The Regional Board intends to review periodically YVWD, the City of Beaumont, the City of

Banning, BCVWD and the Pass Agency's implementation of the maximum benefit program commitments described above and summarized in Table 5-9c. This review is intended to determine whether the commitments are met, and whether the application of the "maximum benefit" objectives continues to be justified. As indicated above, if, as a result of this review, the Regional Board finds that the commitments are not met, then the Regional Board may make the finding that the "maximum benefit" objectives are not consistent with the maintenance of water quality that is of maximum benefit to the people of the state, and that the more stringent "antidegradation" objectives for the Beaumont Groundwater Management Zone (230 mg/L for TDS and 1.5 mg/L for nitrate-nitrogen; see Chapter 4) must apply instead for regulatory purposes. In the event that the Regional Board makes these determinations, the Regional Board will require that YVWD, the City of Beaumont, the City of Banning, BCVWD and the Pass Agency, either individually or collectively, implement the Salt Mitigation Plan (see commitment # 6) and mitigate the adverse water quality effects, both on the immediate and downstream waters, which resulted from recycled water discharges based on the "maximum benefit" objectives.

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Insert the following language

Minimum Lot Size Requirements and Exemption Criteria for New Developments Using On-Site Septic Tank-Subsurface Leaching/Percolation Systems

[These Requirements shall sunset no later than May 13, 2018. If a Local Agency Management Plan (LAMP) developed pursuant to the State Water Resources Control Board's Onsite Wastewater Treatment System Policy is approved prior to that date, the LAMP shall supersede these requirements as of the date of approval.]

Page 5-204ff

Update the Chapter 5 references as follows:

REFERENCES:

1. Wildermuth Environmental, Inc., TIN/TDS – Phase 2A of the Santa Ana Watershed, Development of Groundwater Management Zones, Estimation of Historic and Current TDS and Nitrogen Concentrations in Groundwater, Final Technical Memorandum," July 2000.
2. Wildermuth Environmental, Inc., "Santa Ana Watershed Data Collection and Management Program, Final Technical Memorandum," October 2001.
3. Wildermuth Environmental, Inc., "TIN/TDS Study - Phase 2B of the Santa Ana Watershed, Wasteload Allocation Investigation Memorandum," October 2002.
4. Wildermuth Environmental, Inc., Memo to TIN/TDS Task Force, "Transmittal of Final Tables, Figures and CD in Support of Basin Plan Amendments – TIN/TDS Study," October 2002.
5. Wildermuth Environmental, Inc., "June 2003 Addendum TIN/TDS Study – Phase 2B of the Santa Ana Watershed Wasteload Allocation Investigation," July 2003
6. California Regional Water Quality Control Board – Santa Ana Region, "Guidelines for Sewage Disposal from Land Developments," January 1979.
7. State Water Resources Control Board, "Order No. 73-4, Rancho Caballero Decision," April 1972.
8. Department of Water Resources, "Mineral Increases from Municipal Use of Water in the Santa Ana River Basin," Memorandum Report, June 1982.
9. City of Riverside, Memo from Rod Cruze to TIN/TDS Task Force, "Nitrogen Loss Assumptions for Reach 3 of the Santa Ana River," April 2002.
- 10A. ~~California Regional Water Quality Control Board – Santa Ana Region, Staff Report, "Santa Ana River at Prado Dam, Results of Annual Water Quality Sampling for 2002", April 2003. ——— Santa Ana Watershed Project Authority,~~
- 10B. Chino Basin Watermaster, Letter to Gerard Thibeault, "Chino Basin Watermaster Proposal for New Total Dissolved Solids (TDS) and Nitrogen Water Quality Objectives for the Chino and Cucamonga Basins Based on Maximum Beneficial Use," December 2002.
- 10C. Chino Basin Watermaster, "Chino Basin Optimum Basin Management Plan," 1999.
- 10D. ~~Yucaipa Valley Water District, Letter to Gerard Thibeault, "Yucaipa Valley Water District Proposal for New Total Dissolved Solids (TDS) and Total Inorganic Nitrogen Water Quality Objectives for the San Timoteo and Yucaipa Management Zones Based on Maximum Beneficial Use," January 2002. City of Banning, Beaumont Cherry Valley Water District, San Gorgonio Pass Water Agency, Yucaipa Valley Water District, (2011), Proposed Regional Implementation of Maximum Benefit Commitments for the Beaumont Management Zone. Preliminary Draft~~

- 10E. San Timoteo Watershed Management Agency, Letter to Gerard Thibeault, "Revised San Timoteo Watershed Management Agency Proposal for New Total Dissolved Solids (TDS) and Total Inorganic Nitrogen Water Quality Objectives for the Beaumont, San Timoteo and Yucaipa Management Zones Based on Maximum Beneficial Use," December 2002 (Revised November 11, 2003).
- 10F. Daniel B. Stephens & Associates. (2007), Quantification of Nitrogen Removal Under Recycled Water Ponds, Prepared for Eastern Municipal Water District.

Attachment 4: Exhibit “D”

BMPTEF Agreement

**AGREEMENT TO FORM A TASK FORCE
TO CONDUCT A
BASIN MONITORING PROGRAM FOR
NITROGEN AND TOTAL DISSOLVED SOLIDS
IN THE SANTA ANA RIVER WATERSHED
(BASIN MONITORING PROGRAM)**

THIS AGREEMENT is made and entered into this 10 th day of August, 2004 by and among the following entities, which are hereinafter sometimes referred to collectively as "TASK FORCE AGENCIES" or individually as TASK FORCE AGENCY" ("AGREEMENT"). This AGREEMENT is also by and between the Santa Ana Watershed Project Authority ("SAWPA") and the TASK FORCE AGENCIES as to SAWPA's role as Task Force Administrator. The following public agencies are the "TASK FORCE AGENCIES":

Orange County Water District	Inland Empire Utilities Agency
Eastern Municipal Water District	City of Rialto
City of Corona	Elsinore Valley Municipal Water District
City of Riverside	Colton/San Bernardino Regional Tertiary
Yucaipa Valley Water District	Treatment and Wastewater Reclamation
Lee Lake Water District	Authority
Chino Basin Watermaster	Jurupa Community Services District
City of Redlands	City of Beaumont
San Timoteo Watershed Management	Irvine Ranch Water District
Authority	Western Riverside County Regional
	Wastewater Authority

I. RECITALS

A. Background. In December 1995, the Nitrogen TDS Task Force, consisting of 22 water resource agencies in the Santa Ana Watershed, was formed to oversee a study to evaluate the impacts of Total Inorganic Nitrogen (TIN) and Total Dissolved Solids (TDS) on water resources in the Santa Ana River Watershed. The study was completed in mid-2003. On January 22, 2004, the Santa Ana Regional Water Quality Control Board ("RWQCB") incorporated the results of the Nitrogen TDS Task Force study into a Basin Plan Amendment for Nitrogen and TDS and adopted the Basin Plan Amendment. The TASK FORCE AGENCIES were named in that Basin Plan Amendment as responsible for conducting various monitoring programs and analyses to support the results defined in the Basin Plan Amendment. The monitoring programs and analyses are described as follows:

a. TDS/Nitrogen Monitoring Program for Santa Ana River Reaches 2, 4 and 5. The implementation of a TDS/Nitrogen monitoring program for the Santa Ana River Reaches 2, 4 and 5 is necessary to assure compliance with both surface water objectives of the defined river reaches and groundwater objectives underlying the river reaches to protect downstream

Orange County groundwater. Compliance with the Reach 2 TDS objective can be determined by evaluation of data collected by the Santa Ana River Watermaster, Orange County Water District, the United States Geological Survey, and others.

b. Watershed-wide TDS/Nitrogen Groundwater Monitoring and Ambient Groundwater Quality Update Program. The implementation of a watershed-wide TDS/Nitrogen groundwater monitoring program is necessary to assess current water quality, to determine whether TDS and Nitrate-Nitrogen water quality objectives for management zones are being met or exceeded, and to update assimilative capacity findings. Groundwater monitoring is also needed to fill data gaps for those management zones with insufficient data to calculate TDS and Nitrate-Nitrogen historical quality and current quality. Groundwater monitoring is needed to assess the effects of publicly-owned treatment plants ("POTW") discharges to surface waters on affected groundwater. The determination of current ambient groundwater quality throughout the watershed will be conducted and reported by July 1, 2005.

The RWQCB has indicated that the watershed-wide TDS/Nitrogen monitoring program should be conducted every three years to determine the current ambient groundwater quality in the watershed for TDS and Nitrogen. The SAR Reaches 2, 4 and 5 monitoring programs shall be conducted annually. The results of all monitoring programs defined in annual reports will be submitted to the RWQCB.

B. The Purpose of the Task Force Agreement. The purpose of this Task Force Agreement is to form a task force to oversee and conduct the necessary studies for the Basin Monitoring Program as defined in the RWQCB's Basin Plan Amendment. The Task Force is proposed to consist of the TASK FORCE AGENCIES to direct the study and fund it on an equitable basis to be determined by the Task Force.

C. Memorandum of Agreement on Nitrogen Loss Monitoring Program. Some of the TASK FORCE AGENCIES have entered into a separate agreement to conduct a one year Nitrogen Loss Monitoring Program in the Santa Ana River Watershed which, while related to the work in this AGREEMENT, is to be funded separately by those TASK FORCE AGENCIES who are parties to that Agreement, and shall be governed separately by the parties to that Agreement.

II. COVENANTS

NOW, THEREFORE; in consideration of the foregoing recitals and mutual covenants contained herein, the TASK FORCE AGENCIES agree as follows:

1. Creation of a Task Force.

There is hereby created a "Task Force to conduct a Basin Monitoring Program for Nitrogen and Total Dissolved Solids in the Santa Ana River Watershed" initially consisting of the TASK FORCE AGENCIES and other entities as more specifically provided for in paragraph 3 below.

2. Purpose of the Task Force.

The purpose of the Task Force is to provide oversight and supervision of the work that is described herein.

3. Membership and Organization.

a. Regular Members. Concurrently with the execution of this AGREEMENT, each of the TASK FORCE AGENCIES shall appoint one regular representative to the Task Force and one alternate representative to act in the absence of the regular representative. The representatives must be vested with the authority to act on behalf of the appointing TASK FORCE AGENCY, but only as provided for in this AGREEMENT. No actions by the TASK FORCE AGENCIES shall bind the TASK FORCE AGENCIES, except as explicitly provided for in this AGREEMENT. The identity of the appointed representatives shall be promptly communicated in writing to SAWPA. The representatives shall serve at the pleasure of the appointing TASK FORCE AGENCY and may be removed at any time, with or without cause; provided, however, that the TASK FORCE AGENCIES acknowledge and agree the continuity of representation on the Task Force is important to the overall effectiveness of the Task Force, and the TASK FORCE AGENCIES further agree to ensure such continuity whenever possible.

b. Additional Agencies. The TASK FORCE AGENCIES acknowledge and agree that the effectiveness of the Task Force may be improved by the inclusion of other public agencies as additional TASK FORCE AGENCIES to the Task Force. Such public agencies may join the Task Force on such written terms and conditions as are acceptable to all TASK FORCE AGENCIES of the Task Force, including, but not limited to, agreed-upon cash contributions for past, present, and/or future work, of the Task Force. The inclusion of such public agencies as additional TASK FORCE AGENCIES to the Task Force shall be effected by a written amendment to this AGREEMENT signed by all TASK FORCE AGENCIES. Such additional TASK FORCE AGENCIES shall appoint their Task Force representatives and alternates as provided in Section 3.a. above or in said written amendment.

c. Advisory Members. The Task Force may, from time to time, seek the advice and counsel of regulatory or special interest agencies, which agencies may serve as Advisory Members to the Task Force. Such Advisory Members shall have no obligation to provide funding and no voting privileges. The California Regional Water Quality Control Board, Santa Ana Region, is hereby appointed as an Advisory Member of the Task Force. Additional Advisory Members may be appointed by a majority vote of the Task Force representatives.

d. Committees. The Task Force may establish committees, consisting of members who shall be selected by, and serve at the pleasure of the Task Force.

e. Task Force Administrator. SAWPA, acting through its Planning Department staff, is hereby appointed as the Task Force Administrator for purposes of this Task Force Agreement. SAWPA shall have the following administrative responsibilities and shall be reimbursed for time expended on behalf of the Task Force at SAWPA's rate for salary, overhead, burden (as shown in Exhibit "A"), and cost of materials, and including costs for:

- (1) Organizing and facilitating Task Force meetings;
- (2) Secretarial, clerical, and administrative services;
- (3) Management of Task Force funds and provide annual reports of Task Force assets and expenditures;
- (4) Hire Task Force-authorized consultants.
- (5) Hire SAWPA-approved consultant to provide technical review of Watershed-wide TDS/nitrogen groundwater monitoring program

SAWPA, as the Task Force Administrator, will act as the contracting party for the benefit of Task Force, for contracts with all Task Force consultants or contractors. SAWPA will not contract, direct, instruct, or guide such consultants or contractors on behalf of the Task Force or use funds provided by the Task Force without approval of, or guidance from, the Task Force representatives in accordance with Sections 3.f(2), 5 and 6 of this AGREEMENT. SAWPA will provide project management for work performed by such consultants or contractors.

f. Meetings of the Task Force.

(1) Frequency and Location. The first Task Force meeting shall be held at the office of SAWPA, at which time the Task Force shall agree upon the time and place of holding its regular meetings. Special meetings may be called at the request of the Task Force Administrator or by a majority of the Task Force representatives. All meetings of the Task Force or its Committees shall be noticed and conducted in compliance with California's Open Meeting Laws.

(2) Quorum. A majority of the representatives of the Task Force shall constitute a quorum. Actions of the Task Force shall be passed and adopted upon the affirmative vote of a majority of the Task Force. Each TASK FORCE AGENCY shall have one vote. The Task Force may adopt such additional rules and regulations as may be required for the conduct of its affairs so long as such rules and regulations do not conflict with this AGREEMENT and applicable law.

(3) Meeting Minutes. SAWPA shall keep, or cause to be kept, minutes of the Task Force meetings including any handout materials used. Copies of the meetings and handouts will be delivered to the Task Force representatives, each TASK FORCE AGENCY, and the Advisory Members.

(4) Task Force Chair. At the first official meeting of the Task Force following execution of this AGREEMENT by all TASK FORCE AGENCIES a chair shall be selected by the Task Force representatives. The term of the chair shall be one year and shall be rotated among the Task Force representatives.

4. Duties of the Task Force.

a. Conduct Watershed-wide TDS/Nitrogen Groundwater Monitoring and Ambient Groundwater Quality Update Program. Hire consultant to perform, authorize, direct, and supervise the "project scope of work". The first component of the scope of work is described in that certain report entitled, "RWQCB Basin Plan Amendment Required Monitoring and Analyses, Recomputation of Ambient Water Quality for the Period 1984 to 2003, Final Work Plan" dated February 2004 (hereafter "Study"), which is incorporated herein by this reference. The determination of current ambient groundwater quality throughout the watershed will be conducted and reported by July 1, 2005. An update and recomputation of the ambient water quality will be conducted every three years thereafter by the Task Force.

b. Conduct TDS/Nitrogen Monitoring Program for Santa Ana River, Reaches 2, 4, and 5. Hire consultant to implement a monitoring program and prepare annual reports that will provide an evaluation of compliance with the TDS and Nitrogen objectives for Reaches 2, 4 and 5 of the Santa Ana River. The reports will be provided to the RWQCB by April 15th of each year.

c. Termination of Projects or Studies. The TASK FORCE AGENCIES hereby agree that the Task Force shall have the discretion to terminate its projects or studies in the event a consensus of the TASK FORCE AGENCIES cannot be maintained during the course of the Task Force projects or studies.

5. Budgets.

On or before January 1st of each year, SAWPA shall prepare and submit a Task Force budget for the next fiscal year to the Task Force and TASK FORCE AGENCIES. The proposed budget shall include all anticipated costs and fees for the scope(s) of work developed by the Task Force for the next fiscal year. Costs shall include costs and fees for any consultants or contractors to be hired by SAWPA to complete the anticipated scopes of work, any equipment or materials to be purchased, and any other direct costs. SAWPA shall include as a separate item in such proposed budgets costs of SAWPA administrative services. The proposed budget shall include a detailed description of all work to be accomplished with the budget. The budgets shall also set forth the funds to be deposited with SAWPA consistent with the budgeted costs and fees for that fiscal year. Each TASK FORCE AGENCY shall approve and pay, in advance on or before January 1st of each year, its pro-rata share of the Task Force proposed budget for the next fiscal year. The pro-rata share of such costs and fees for each TASK FORCE AGENCY will be as described in EXHIBIT "B", attached hereto and made a part of this AGREEMENT. Said EXHIBIT "B" shall be renewed each fiscal year to reflect the final budget and the participating TASK FORCE AGENCIES of that fiscal year, and any other factor that may affect the pro-rata share of such costs and fees for each TASK FORCE AGENCY for that fiscal year. EXHIBIT "A" includes by its attachment the funding sources for Fiscal Year (July 1st to June 30th) 2004-2005, and a budget for that fiscal year shall be adopted by the Task Force and TASK FORCE AGENCIES after this AGREEMENT has been fully executed. In the event that any TASK FORCE AGENCY withdraws from the Task Force, the budget then in effect shall be adjusted in order to provide for any funding shortfall caused by such withdrawal.

6. Contracting.

Upon Task Force approval, SAWPA shall hire consultants and contractors, as necessary, to complete the scope of work that has been funded by TASK FORCE AGENCIES each fiscal year. SAWPA shall not obligate funds that have not been delivered to SAWPA by the TASK FORCE AGENCIES.

7. Duration of Agreement.

This AGREEMENT shall not terminate unless by mutual agreement of the TASK FORCE AGENCIES provided that all debts and liabilities of the Task Force are satisfied. Notwithstanding the foregoing, each TASK FORCE AGENCY reserves the right to terminate at anytime, upon sixty (60) days' written notice to the Task Force. Task Force projects and studies already undertaken on behalf of TASK FORCE AGENCIES at the time of withdrawal by a TASK FORCE AGENCY shall be fully funded by the TASK FORCE AGENCIES, including the withdrawing TASK FORCE AGENCY, at the time projects or studies are approved by the Task Force for implementation. A withdrawing TASK FORCE AGENCY shall not be entitled to any refund for programs or studies already underway. Any refund of surplus funds due to the withdrawing TASK FORCE AGENCY shall be paid sixty (60) days after completion of tasks, projects and studies undertaken or in progress.

8. Ownership of Documents.

All work or deliverables produced, including originals prepared by anyone in connection with, or pertaining to, the work of the Task Force, shall become the property in whole and in part of TASK FORCE AGENCIES, individually and collectively. Provided, however, that any withdrawn TASK FORCE AGENCY shall only be entitled to such work or deliverables if the withdrawn TASK FORCE AGENCY has fully contributed funds for such work or deliverables.

9. Assignment.

No right, duty or obligation of whatever kind or nature created herein shall be assigned without the prior written consent of all TASK FORCE AGENCIES.

10. Effective Date.

This Task Force Agreement shall become effective when it has been executed by a majority of the TASK FORCE AGENCIES pursuant to authorization by each TASK FORCE AGENCY's Board of Directors.

11. Counterparts.

This AGREEMENT may be executed in original counterparts, which together shall constitute a single agreement.

12. Independent Contractor Status.

This AGREEMENT is not intended and shall not be construed so as to create the relationship of agent, servant, employee, partnership, joint venture or association, as between the TASK FORCE AGENCIES.

13. Waiver Of Rights.

The failure by the TASK FORCE AGENCIES or SAWPA to insist upon strict performance of any of the terms, covenants or conditions of this AGREEMENT shall not be deemed a waiver of any right or remedy that TASK FORCE AGENCIES and SAWPA may have, and shall not be deemed a waiver of the right to require strict performance of all the terms, covenants and conditions of this AGREEMENT thereafter, nor a waiver of any remedy for the subsequent breach or default of any term, covenant or condition of this AGREEMENT.

14. Severability.

If any part of this AGREEMENT is held, determined or adjudicated to be illegal, void or unenforceable by a court of competent jurisdiction, the remainder of this AGREEMENT shall be given effect to the fullest extent reasonably possible.

15. Amendment.

It is mutually understood and agreed that no addition to, alteration of, or variation of the terms of this AGREEMENT, nor any oral understanding or agreement not incorporated herein, shall be valid unless made in writing and signed and approved by all TASK FORCE AGENCIES and SAWPA.

16. Entire Agreement.

This document sets forth the entire Agreement between and among the TASK FORCE AGENCIES and SAWPA.

17. Availability Of Funds.

The obligation of each TASK FORCE AGENCY is subject to the availability of funds appropriated by each TASK FORCE AGENCY for the purposes herein. Any obligation for the future payment of money beyond the current fiscal year is conditioned on the governing body of each TASK FORCE AGENCY providing adequate appropriations in the adopted budgets for those subsequent fiscal years. This condition applies to but is not be limited to the obligations of the TASK FORCE AGENCIES under section 3.e (Task Force Administrator), and section 5 (Budgets) of this AGREEMENT. Based on the financial constraints imposed by this Section 17, the TASK FORCE AGENCIES understand that SAWPA is under no duty to perform any services under this AGREEMENT until and unless the each TASK FORCE AGENCY has approved the fiscal year budget under Section 5, and has appropriated and deposited with SAWPA, the necessary monies to fund the approved budget. Any failure by one or more of the TASK FORCE AGENCIES to appropriate and deposit monies with SAWPA to fund the budget will necessarily delay the performance of the services by SAWPA contemplated by this AGREEMENT, and SAWPA shall not be held responsible or liable for any such delay or costs incurred from such a delay.

18. Indemnity and Insurance.

a. SAWPA shall require all consultants or contractors performing work or services for the Task Force to indemnify and hold harmless SAWPA and the TASK FORCE AGENCIES from any and all claims, damages, lawsuits, fines, penalties, including attorneys' fees and costs, arising from or related to the works or services provided by such consultants

or contractors. Such contractors or consultants shall also maintain the following insurances and keep certificates of such insurances on file with SAWPA, on behalf of the Task Force:

(1) **Workers Compensation Insurance.** A program of Workers Compensation insurance or a state approved self-insurance program shall be in an amount and form to meet all applicable requirements of the Labor Code of California, covering all persons and entities providing services on behalf of the consultant or contractor and all risks of such persons or entities under this AGREEMENT.

(2) **Comprehensive General and Automobile Liability Insurance.** Comprehensive personal injury and property damage liability coverage shall include contractual coverage and automobile liability, if applicable, and including coverage for owned, hired and non-owned vehicles. The policy shall have a combined single limit for bodily injury and property damage of at least \$1,000,000.00. SAWPA and the TASK FORCE AGENCIES shall be named as additional insureds on the policy providing such coverage, and any right of subrogation shall be waived.

(3) **Professional Liability Insurance.** Professional liability insurance shall include limits of at least \$1,000,000.00 per claim or occurrence, unless such coverage is waived by the Task Force representatives.

b. Nothing in this AGREEMENT is intended to create, nor shall anything herein be construed as creating, any rights in, benefits for or obligations to, any person or entity other than SAWPA and the TASK FORCE AGENCIES.

19. **Nondiscrimination.**

SAWPA shall ensure that during the term of this AGREEMENT it and any consultant retained by it shall not discriminate on the grounds of race, religion, creed, color, national origin, ancestry, age, physical disability, mental disability, medical condition, including the medical condition of Acquired Immune Deficiency Syndrome (AIDS) or any other condition related thereto, marital status, sex, or sexual orientation, in the selection and retention of employees and subcontractors and the procurement of materials and equipment, except as provided in Section 12940 of the California Government Code, in the performance of this AGREEMENT and shall also comply with the applicable provisions of the Americans with Disabilities Act.

20. **Warranty of Authority.**

Each of the individuals executing this AGREEMENT represent and warrant that she or he has the legal power, right and actual authority to bind their respective TASK FORCE AGENCIES to the terms and conditions of this AGREEMENT. Each individual executing this AGREEMENT further represents and warrants that the AGREEMENT has been approved by his or her respective TASK FORCE AGENCIES' governing board.

21. **Dispute Resolution.**

Any dispute which may arise by and between the parties to this AGREEMENT shall first be submitted to non-binding mediation, conducted by a neutral, impartial mediation

service that the parties mutually agree upon in writing. Any dispute not resolved by such mediation shall be submitted to binding arbitration conducted by a neutral, impartial arbitration service that the parties mutually agree upon in writing. The arbitrator shall decide each and every dispute in accordance with the laws of the State of California, and all other applicable laws. Upon a showing of good cause, the arbitrator may permit limited discovery in the arbitration proceeding. If any party commences legal action or arbitration arising out of or in connection with this Project Agreement, the prevailing party shall be entitled to recover reasonable attorney's fees and litigation expenses from the losing party.

IN WITNESS WHEREOF, SAWPA and the TASK FORCE AGENCIES have executed this AGREEMENT on the date set forth below.

ORANGE COUNTY WATER DISTRICT

DATE 9-1-04

BY

Tom Blodan
President

DATE 9-1-04

BY

Virginia Sabbian
Secretary General Manager

APPROVED AS TO FORM

By

[Signature]
General Counsel for
Orange County Water District

DATE _____

BY _____

President

DATE _____

BY _____

Secretary

EASTERN MUNICIPAL WATER DISTRICT

DATE _____

BY _____

President

DATE _____

BY _____

Secretary

service that the parties mutually agree upon in writing. Any dispute not resolved by such mediation shall be submitted to binding arbitration conducted by a neutral, impartial arbitration service that the parties mutually agree upon in writing. The arbitrator shall decide each and every dispute in accordance with the laws of the State of California, and all other applicable laws. Upon a showing of good cause, the arbitrator may permit limited discovery in the arbitration proceeding. If any party commences legal action or arbitration arising out of or in connection with this Project Agreement, the prevailing party shall be entitled to recover reasonable attorney's fees and litigation expenses from the losing party.

IN WITNESS WHEREOF, SAWPA and the TASK FORCE AGENCIES have executed this AGREEMENT on the date set forth below.

ORANGE COUNTY WATER DISTRICT

DATE _____ BY _____
President

DATE _____ BY _____
Secretary

INLAND EMPIRE UTILITIES AGENCY

DATE 9/8/04 BY *Richard D. [Signature]*
President *GM*

DATE _____ BY *John L. [Signature]*
Board President

DATE _____ BY *[Signature]*
Secretary

EASTERN MUNICIPAL WATER DISTRICT

DATE _____ BY _____
President

DATE _____ BY _____
Secretary

service that the parties mutually agree upon in writing. Any dispute not resolved by such mediation shall be submitted to binding arbitration conducted by a neutral, impartial arbitration service that the parties mutually agree upon in writing. The arbitrator shall decide each and every dispute in accordance with the laws of the State of California, and all other applicable laws. Upon a showing of good cause, the arbitrator may permit limited discovery in the arbitration proceeding. If any party commences legal action or arbitration arising out of or in connection with this Project Agreement, the prevailing party shall be entitled to recover reasonable attorney's fees and litigation expenses from the losing party.

IN WITNESS WHEREOF, SAWPA and the TASK FORCE AGENCIES have executed this AGREEMENT on the date set forth below.

ORANGE COUNTY WATER DISTRICT

DATE _____ BY _____
President

DATE _____ BY _____
Secretary

INLAND EMPIRE UTILITIES AGENCY

DATE _____ BY _____
President

DATE _____ BY _____
Secretary

EASTERN MUNICIPAL WATER DISTRICT

DATE 8/23/04 BY 
President

DATE 08/23/04 BY Rosemarie V. Howell
Secretary

CITY OF RIALTO

DATE _____

BY Joe Sampson
Mayor P.O. # 7211

DATE _____

BY Barbara G. McFue
City Clerk

CITY OF CORONA

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

CITY OF RIVERSIDE

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CITY OF RIALTO

DATE _____

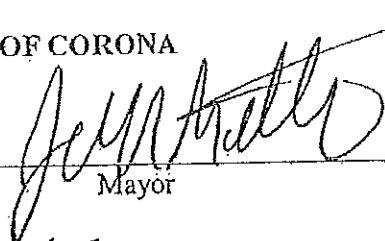
BY _____
Mayor

DATE _____

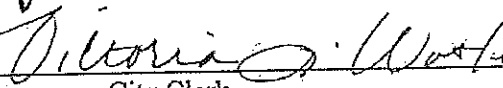
BY _____
City Clerk

CITY OF CORONA

DATE 8/4/04

BY 
Mayor

DATE 8/4/04

BY 
City Clerk

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

CITY OF RIVERSIDE

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CITY OF RIALTO

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CITY OF CORONA

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

DATE 9-13-04

BY W Ben Wicks
President

DATE 9/14/04

BY Cecilia Santamar
Secretary

CITY OF RIVERSIDE

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CITY OF RIALTO

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CITY OF CORONA

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

DATE _____

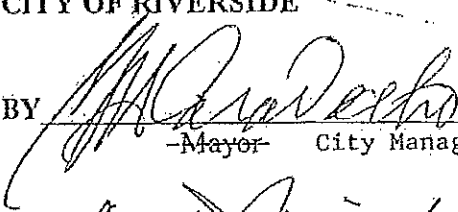
BY _____
President

DATE _____

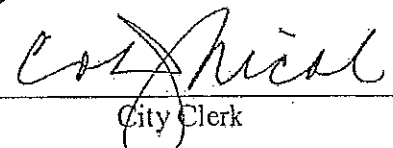
BY _____
Secretary

CITY OF RIVERSIDE

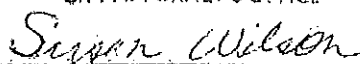
DATE 09-02-2004

BY  _____
-Mayor- City Manager

DATE 09-02-2004

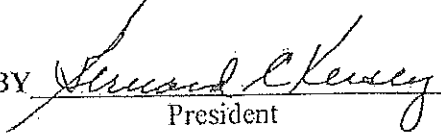
BY  _____
City Clerk

APPROVED AS TO FORM
CITY ATTORNEY'S OFFICE

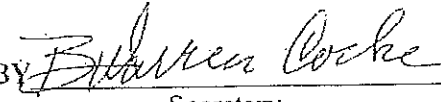
BY  _____

COLTON/SAN BERNARDINO REGIONAL
TERTIARY TREATMENT AND WASTEWATER
RECLAMATION AUTHORITY

DATE 9-13-04

BY 
President

DATE 9/14/04

BY 
Secretary

YUCAIPA VALLEY WATER DISTRICT

DATE _____

BY _____
President, Board of Directors

JURUPA COMMUNITY SERVICES DISTRICT

DATE _____

BY _____
President, Board of Directors

LEE LAKE WATER DISTRICT

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

COLTON/SAN BERNARDINO REGIONAL
TERTIARY TREATMENT AND WASTEWATER
RECLAMATION AUTHORITY

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

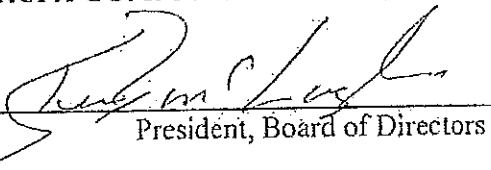
YUCAIPA VALLEY WATER DISTRICT

DATE _____

BY _____
President, Board of Directors

JURUPA COMMUNITY SERVICES DISTRICT

DATE _____

BY  _____
President, Board of Directors

LEE LAKE WATER DISTRICT

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

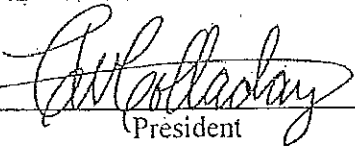
JURUPA COMMUNITY SERVICES DISTRICT

DATE _____

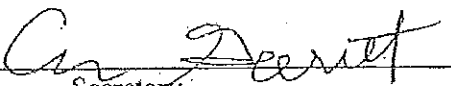
BY _____
President, Board of Directors

LEE LAKE WATER DISTRICT

DATE 7/20/04

BY 
President

DATE 7/20/04

BY 
Secretary

CITY OF BEAUMONT

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CHINO BASIN WATERMASTER

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

CITY OF BEAUMONT

DATE 9/21/04

BY [Signature]
Mayor

DATE 9/21/04

BY [Signature]
City Clerk

CHINO BASIN WATERMASTER

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

IRVINE RANCH WATER DISTRICT

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

CITY OF REDLANDS

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CITY OF BEAUMONT

DATE _____

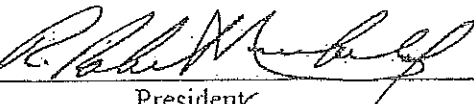
BY _____
Mayor

DATE _____

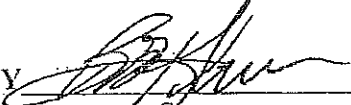
BY _____
City Clerk

CHINO BASIN WATERMASTER

DATE _____

BY  _____
President

DATE _____

BY  _____
Secretary

IRVINE RANCH WATER DISTRICT

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

CITY OF REDLANDS

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CITY OF BEAUMONT

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CHINO BASIN WATERMASTER

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

IRVINE RANCH WATER DISTRICT

DATE _____

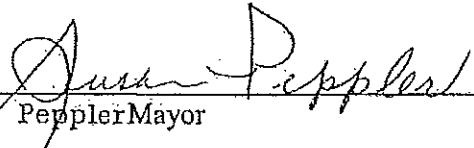
BY _____
President

DATE _____

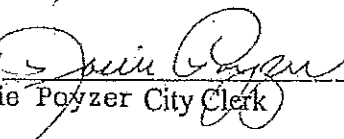
BY _____
Secretary

CITY OF REDLANDS

DATE 11/2/04

BY 
Susan Peppler Mayor

DATE 11/2/04

BY 
Lorrie Poyzer City Clerk

WESTERN RIVERSIDE COUNTY REGIONAL
WASTEWATER AUTHORITY

DATE _____

BY _____

Chair

DATE _____

BY _____

Secretary-Treasurer

SAN TIMOTEO WATERSHED MANAGEMENT
AUTHORITY

DATE _____

BY _____

President

DATE _____

BY _____

Secretary

SANTA ANA WATERSHED PROJECT AUTHORITY

DATE _____

BY _____

Chair

DATE _____

BY _____

Secretary-Treasurer

WESTERN RIVERSIDE COUNTY REGIONAL
WASTEWATER AUTHORITY

DATE _____

BY _____
Chair

DATE _____

BY _____
Secretary-Treasurer

SAN TIMOTEO WATERSHED MANAGEMENT
AUTHORITY

DATE 9/28/04

BY William D. [Signature]
Vice President

DATE 9/28/04

BY G. Butcher
Secretary

SANTA ANA WATERSHED PROJECT AUTHORITY

DATE _____

BY _____
Chair

DATE _____

BY _____
Secretary-Treasurer

WESTERN RIVERSIDE COUNTY REGIONAL
WASTEWATER AUTHORITY

DATE _____

BY _____
Chair

DATE _____

BY _____
Secretary-Treasurer

SAN TIMOTEO WATERSHED MANAGEMENT
AUTHORITY

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

SANTA ANA WATERSHED PROJECT AUTHORITY

DATE 8-10-04

BY S. R. Al Lopez
Chair

DATE 8-10-04

BY Ed Al Lopez
Secretary-Treasurer

EXHIBIT A

Overhead and burden are included in all rates. Labor for SAWPA staff shall be billed at the rates in Table 1 below for FY 04-05. Rates will be adjusted annually based on SAWPA annual budget. Materials purchased to provide administrative services that are not shown in Table 1 below shall be billed at direct cost with no additional fees or mark-ups.

Table 1 SAWPA Rate Sheet	
Item	Rate
Planning Manager	\$117.09/hour
Watershed Planner	\$ 75.60/hour
Sr. Administrative Assistant	\$ 55.65/hour
Administrative Assistant II	\$ 43.11/hour
Administrative Assistant I	\$ 44.34/hour
Controller	\$ 88.65/hour
Senior Accounting Technician	\$ 50.89/hour
Automobile Travel	Federal mileage rate for automobile travel to meeting locations.
Out of Town travel (when air travel or overnight stay is required)	Direct cost of air travel plus direct cost of lodging and meals.

**AMENDMENT NO. 1
TO
AGREEMENT TO FORM A TASK FORCE
TO CONDUCT A
BASIN MONITORING PROGRAM FOR
NITROGEN AND TOTAL DISSOLVED SOLIDS
IN THE SANTA ANA RIVER WATERSHED
(BASIN MONITORING PROGRAM)**

Pursuant to Paragraph II.15 of that certain AGREEMENT entitled, "Agreement to Form a Task Force to Conduct a Basin Monitoring Program for Nitrogen and Total Dissolved Solids in the Santa Ana River Watershed", dated August 10, 2004, the TASK FORCE AGENCIES hereby agree to make the following changes:

1. Under I. Recitals B. The Purpose of the Task Force Agreement shall be revised to read as follows:

The purpose of this AGREEMENT is to form a task force to oversee and conduct the studies for the Basin Monitoring Program as described in the RWQCB's Basin Plan Amendment **and perform other related cooperative studies as agreed to by the TASK FORCE AGENCIES.** The Task Force is proposed to consist of the TASK FORCE AGENCIES to direct the study and fund it on an equitable basis to be determined by the TASK FORCE AGENCIES.

2. The TASK FORCE AGENCIES hereby amend Paragraph II. 4 (Duties of the Task Force) of the Task Force Agreement to include the following tasks to be funded by the TASK FORCE AGENCIES and authorize the Task Force Administrator to conduct such tasks.

- d. Conduct Santa Ana River (SAR) Wasteload Allocations and other related studies

Hire a consultant to perform updates to the SAR Wasteload Allocation Report, work with the RWQCB staff and TASK FORCE AGENCIES on appropriate model runs to be used for new RWQCB Basin Plan Amendments for the SAR Wasteload Allocation and provide appropriate input for new Basin Plan Amendment language as needed. Additional studies may also be conducted to support the purposes of the TASK FORCE AGENCIES as directed by a consensus of the TASK FORCE AGENCIES.

Except as otherwise expressly amended herein, all of the terms, conditions, and provisions of the AGREEMENT shall continue in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment on the dates set forth below.

CITY OF BEAUMONT

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CHINO BASIN WATERMASTER

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

**COLTON/SAN BERNARDINO REGIONAL
TERTIARY TREATMENT AND WASTEWATER
RECLAMATION AUTHORITY**

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

CITY OF CORONA

DATE _____

BY _____
DWP General Manager

DATE _____

BY _____
City Clerk

EASTERN MUNICIPAL WATER DISTRICT

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

ELSINORE VALLEY MUNICIPAL WATER DISTRICT

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

INLAND EMPIRE UTILITIES AGENCY

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

IRVINE RANCH WATER DISTRICT

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

JURUPA COMMUNITY SERVICES DISTRICT

DATE _____

BY _____
President, Board of Directors

ORANGE COUNTY WATER DISTRICT

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

CITY OF RIALTO

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CITY OF RIVERSIDE

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

CITY OF REDLANDS

DATE _____

BY _____
Mayor

DATE _____

BY _____
City Clerk

**SAN TIMOTEO WATERSHED MANAGEMENT
AUTHORITY**

DATE _____

BY _____
President

DATE _____

BY _____
Secretary

SANTA ANA WATERSHED PROJECT AUTHORITY

DATE _____

BY _____
Chair

DATE _____

BY _____
Secretary-Treasurer

**WESTERN RIVERSIDE COUNTY REGIONAL
WASTEWATER AUTHORITY**

DATE _____

BY _____
Chair

DATE _____

BY _____
Secretary-Treasurer

YUCAIPA VALLEY WATER DISTRICT

DATE _____

BY _____
President, Board of Directors

CITY COUNCIL /BANNING UTILITY AUTHORITY AGENDA

DATE: **October 27, 2015**

TO: **Banning Utility Authority**

FROM: **Art Vela, Acting Director of Public Works**

SUBJECT: **Resolution No. 2015-15 UA, "Awarding a Professional Services Agreement for the 2015 Urban Water Management Plan Update to Krieger & Stewart Engineering Consultants"**

RECOMMENDATION: The Banning Utility Authority adopt Resolution No. 2015-15 UA:

- I. Approving a Professional Services Agreement with Krieger & Stewart of Riverside, California in the amount of "not to exceed" \$73,000.00.
- II. Authorizing the Administrative Services Director to make necessary budget adjustments and appropriations and transfers related to the project.
- III. Authorizing the Interim City Manager to execute the Professional Services Agreement with Krieger & Stewart Engineering and Consultants.

JUSTIFICATION: The State of California Water Code requires Urban Water Suppliers, such as the City of Banning, to submit updated Urban Water Management Plans on or before December 31, in the years ending in five and zero. This update will satisfy the requirements of the Urban Water Management Act and the subsequent amendments of the Act.

BACKGROUND: The City of Banning Water System collects 100% of the water that it supplies from local groundwater aquifers. It currently operates 21 active ground water production wells and co-owns 3 production wells with the Beaumont Cherry Valley Water District (total of 24 active wells). The 24 wells have a design capacity of 24,300 gallons per minute ("GPM"). The City facilities also include 11 storage tanks with a total storage capacity of 18.4 million gallons ("MG"). In 2014 the City produced and provided approximately 8,500 acre-feet. Water service is provided to the entire City as well as unincorporated areas of the county that bound the south City limits.

The California Urban Water Management Planning Act requires Urban Water Management Plans to be updated every five years. Water suppliers providing water to more than 3,000 customers or more than 3,000 acre-feet per year ("AFY") must prepare, adopt and submit an UWMP to the Department of Water Resources ("DWR"). The UWMP must describe the adequacy and reliability of all water supplies for existing and future customers. The California Water Code specifies the contents and procedures for adoption of the UWMP, which must be adopted and submitted to the DWR. Assembly Bill 2067 requires that the 2015 UWMP be submitted to the DWR by July 1, 2016.

The City is the Urban Water Supplier for the water service area of the City of Banning. The City of Banning has, in the past, complied with California state law as set forth in the Urban Water Management Act (California Water Code 10610) by submitting an Urban Water Management Plan ("UWMP") in 1998 and an updated UWMP in 2005 and 2010.

The scope of work will generally include data review and analysis, development of demand projections and analysis of demand management measures ("DMMs"). The 2015 UWMP will be developed according to the *2015 Urban Water Management Plans Guidebook for Urban Water Suppliers*.

Public Works Staff advertised a Request for Proposals ("RFP") on September 7, 2015 in the Press Enterprise, attached as Exhibit "A" and on the City's website. As a result of these efforts, staff received six proposals, attached as Exhibit "B" in response to the RFP attached hereto as Exhibit "C".

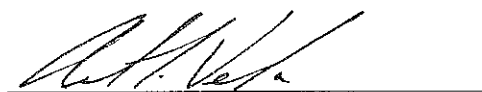
<u>Consultants</u>	<u>Score</u>
1) Krieger & Stewart Engineering Consultants	443.80
2) Stetson Engineers, Inc.	431.30
3) West & Associates Engineering	428.80
4) Risk Management Professionals, Inc.,	408.80
5) TKE Engineering, Inc.	397.50
6) Geoscience Support Services Inc.	392.50

A committee consisting of four members was assembled to evaluate the proposals based on project approach, technical competency, project team and experience and overall responsiveness to the RFP. The evaluations are attached hereto as Exhibit "D".

Based on evaluations, Krieger & Stewart Engineering and Consultants was rated the highest, best qualified company with the ability to update the plan successfully. The total cost to perform the 2015 Urban Water Management Plan Update is \$73,000.00 with the fee schedule and proposal attached as Exhibit "E".

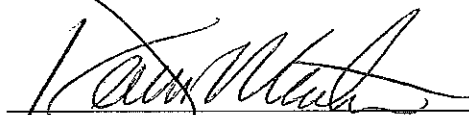
FISCAL DATA: An appropriation in the amount of \$73,000.00 is required from the Water Fund (660) to Account No. 660-6300-471.90-10 (Planning/Engineering) to fund the Professional Services Agreement with Krieger & Stewart Engineering and Consultants.

RECOMMENDED BY:



Art Vela
Acting Director of Public Works

REVIEWED/APPROVED BY:



Dean Martin
Interim City Manager

Attachments:

1. Exhibit "A" – Press Enterprise Advertisement
2. Exhibit "B" – UWMP Proposals
3. Exhibit "C" – Request for Proposals (RFP)
4. Exhibit "D" – Committee Evaluation Forms
5. Exhibit "E" – Fee Schedule

RESOLUTION NO. 2015-15 UA

A RESOLUTION OF THE BANNING UTILITY AUTHORITY OF BANNING, CALIFORNIA, AWARDING A PROFESSIONAL SERVICES AGREEMENT FOR THE 2015 URBAN WATER MANAGEMENT PLAN UPDATE FOR THE CITY'S WATER UTILITY TO KRIEGER & STEWART ENGINEERING AND CONSULTANTS

WHEREAS, the State of California Water Code requires Urban Water Suppliers, such as the City of Banning, to submit updated Urban Water Management Plans on or before December 31, in the years ending in five and zero; and

WHEREAS, this update will satisfy the requirements of the Urban Water Management Act and the subsequent amendments of the Act; and

WHEREAS, the scope of work will generally include data review and analysis, development of demand projections and analysis of demand management measures ("DMMs"). The 2015 UWMP will be developed according to the *2015 Urban Water Management Plans Guidebook for Urban Water Supplier*; and

WHEREAS, Public Works staff advertised a Request for Proposals ("RFP") on September 7, 2015 in the Press Enterprise, attached as Exhibit "A" and on the City's website and staff received six proposals, attached in Exhibit "B" in response to the RFP attached hereto as Exhibit "C"; and

WHEREAS, a committee consisting of four members was assembled to evaluate the proposals based on project approach, technical competency, project team and experience and overall responsiveness to the RFP and the evaluations are attached hereto as Exhibit "D"; and

WHEREAS, based on evaluations, Krieger & Stewart Engineering and Consultants was rated the highest, best qualified company with the ability to update the plan successfully. The total cost to perform the 2015 Urban Water Management Plan Update is \$73,000.00 with the fee schedule attached as Exhibit "E";

WHEREAS, an appropriation in the amount of \$73,000.00 is required from the Water Fund (660) to Account No. 660-6300-471.90-10 (Planning/Engineering) to fund the Professional Services Agreement with Krieger & Stewart Engineering and Consultants.

NOW, THEREFORE, BE IT RESOLVED by the Banning Utility Authority of the City of Banning as follows:

SECTION 1. The Banning Utility Authority adopts Resolution No. 2015-15 UA approving a Professional Services Agreement with Krieger & Stewart Engineering and Consultants, Inc. in an amount "not to exceed" \$73,000.00.

SECTION 2. The Interim Administrative Services Director is authorized to make necessary budget adjustments and appropriations and transfers related to the project.

SECTION 3. The Interim City Manager is authorized to execute the Professional Services Agreement with Krieger & Stewart Engineering and Consultants of Riverside, California, in a form approved by the City Attorney.

PASSED, ADOPTED AND APPROVED this 27th day of October, 2015.

Deborah Franklin, Chairman
Banning Utility Authority

ATTEST:

Marie A. Calderon, Secretary

**APPROVED AS TO FORM AND
LEGAL CONTENT:**

David J. Aleshire, Authority Counsel
Aleshire & Wynder, LLP

CERTIFICATION:

I, Marie Calderon, Secretary to the Utility Authority of the City of Banning, California, do hereby certify that the foregoing Resolution No. 2015-15 UA, was duly adopted by the Banning Utility Authority of the City of Banning at its Joint Meeting thereof held on the 27th day of October, 2015, by the following vote, to wit:

AYES:

NOES:

ABSTAIN:

ABSENT:

Marie A. Calderon, Secretary
Banning Utility Authority

Exhibit “A”
Press Enterprise Advertisement

REQUEST FOR PROPOSALS (RFP)
CITY OF BANNING URBAN WATER MANAGEMENT PLAN

The City of Banning is soliciting proposals from qualified firms to prepare the "City of Banning 2015 Urban Water Management Plan".

A complete copy of the Request for Proposals may be obtained by visiting the City of Banning website at <http://www.ci.banning.ca.us/index.aspx?nid=19> or by contacting Ms. Holly Stuart, Public Works Analyst by email at hstuart@ci.banning.ca.us or by phone at (951) 922-3138. The Proposals are due by Tuesday September 29, 2015 by 5:00 pm to the City of Banning, City Clerk located at 99 E. Ramsey Street, Banning, CA 92220.

BY ORDER OF THE CITY CLERK of the City of Banning, California.

s/ Marie A. Calderon, City Clerk
City of Banning, California

DATED: August 31, 2015
PUBLISH: September 7, 2015

**Exhibit “B”
UWMP Proposals**



City Clerk's Office

September 29, 2015

000-38.4A

City of Banning
City Clerk's Office
99 East Ramsey Street
P. O. Box 998
Banning, CA 92220

Subject: Engineering Services Proposal for
City of Banning 2015 Urban Water Management Plan

Ladies and Gentlemen:

We appreciate the opportunity to submit our proposal for engineering services to the City of Banning (City) for subject project. We understand that the required services will consist of developing the City's 2015 Urban Water Management Plan (UWMP) in accordance with the latest requirements set forth in the 2015 UWMP Guidebook and 2015 Methodologies Handbook scheduled to be published by the California Department of Water Resources and Urban Stakeholder's Committee in 2015. As demonstrated in our proposal, **Krieger & Stewart is well qualified to prepare the City of Banning 2015 Urban Water Management Plan.**

David Scriven will serve as Project Manager and our principal contact person for this project. He may be reached at our office address and telephone number shown at the bottom of this letter, or by email at dscriven@kriegerandstewart.com.

As set forth in the City's Request for Proposal (RFP), our proposal is presented in the following sections:

- Section I Qualifications of Firm/Project Team
- Section II References
- Section III Strategy and Implementation Plan
- Section IV QA/QC

As requested in the RFP, we have provided four (4) hard copies our main proposal, and we have included one (1) hard copy of our Fee Proposal for providing the professional services described in our Scope of Services (in **Section III**) in a separate sealed envelope.

Krieger & Stewart was founded in 1971 by Robert A. Krieger and Julian D. Stewart. For **44 years**, Krieger & Stewart has provided comprehensive engineering and consulting services (planning, permitting, environmental, surveying, design, constructability review, plan checking, construction management, inspection, and commissioning/startup services) to public agencies throughout California, and **particularly throughout Riverside and San Bernardino Counties**, establishing a reputation as a company that *focuses on the details* to protect their clients' interests and bottom line.

Krieger & Stewart has prepared Urban Water Management Plans (UWMPs) for **numerous other public agencies in Southern California** since the Urban Water Management Act was enacted in 1983, including preparation of 17 UWMPs since the first plans were due in 1985 through the 2010 updates. In addition, we are currently preparing 2015 UWMPs for two agencies. As a result of our past and current experience, **we have a thorough understanding of UWMP requirements.** We encourage City staff to contact our references in **Section II** of our proposal.

Krieger & Stewart provides all services out of our offices in Riverside. The firm currently employs **approximately 45 people**, including **15 registered civil engineers**, 4 licensed surveyors, 2 environmental specialists, 10 construction inspectors, and a supporting staff of graduate engineers (civil and mechanical),



City of Banning
September 29, 2015
Page 2

designers, drafters, secretaries, and surveyors. Krieger & Stewart staff will perform all of the tasks described in our Scope of Services (in **Section III**); we do not propose to utilize any subconsultants for this project.

As set forth in our enclosed proposal, Krieger & Stewart's experience and team offer the City **exceptional assistance and services** because:

- ✓ We will utilize team members with significant experience in preparing Urban Water Management Plans and Water Supply Assessments.
- ✓ Our engineering team members have a combined tenure at Krieger & Stewart of 96 years.
- ✓ Our proposed Project Manager, Project Engineer, and support personnel are all experienced with similar projects. All team members are looking forward to the opportunity to deliver a successful project for the City.
- ✓ We will utilize our logical and systematic processes established over our 44 years in business.
- ✓ We will place particular emphasis on communicating with the City; we believe that frequent communication with our clients coupled with comprehensive understanding of the project result in cost effective and efficient engineering services.

Krieger & Stewart is an engineering firm in good standing. Krieger & Stewart has been in continuous operation since it was founded in 1971 and has established a solid financial foundation. Krieger & Stewart's **financial condition is strong and has no pending conditions** (e.g. bankruptcy, pending litigation, or outstanding claims) for or against the firm. All of our registered civil engineers and licensed land surveyors hold active and current licenses with the California Board for Professional Engineers and Land Surveyors, and have had no action taken against them regarding their completion of engineering services.

Krieger & Stewart has no conflict of interest (personal or organizational) pertaining to this project. Krieger & Stewart maintains professional liability insurance with coverage of \$2,000,000/\$2,000,000, general liability insurance with coverage of \$1,000,000/\$2,000,000, automobile and employer's liability insurance with coverage of \$1,000,000 under each policy, excess liability insurance with coverage of \$5,000,000, and workers' compensation with coverage based on the statutory limit.

Again, we are pleased to be considered to provide engineering services to the City of Banning regarding subject project. We take no exceptions to the City's proposed Professional Services Agreement for this project. **We are ready to commence providing services immediately** and are available to discuss our proposal with you at your convenience.

Sincerely,

KRIEGER & STEWART

A handwritten signature in dark ink, appearing to read 'Charles A. Krieger', written in a cursive style.

Charles A. Krieger
President

DFS/blt
000-38P4-PRO

Enclosures: Proposal for Engineering Services (4 hard copies)
Fee Proposal (1 hard copy)



SECTION I - QUALIFICATIONS OF FIRM/PROJECT TEAM

GENERAL

Our Qualifications of Firm/Project Team section is organized under the following headings:

- Qualifications of Firm
- Specific Related Experience
- Proposed Project Team
- Specific Qualifications and Duties of Team Members

QUALIFICATIONS OF FIRM

Krieger & Stewart was founded in 1971 by Robert A. Krieger and Julian D. Stewart. For 44 years, Krieger & Stewart has provided comprehensive engineering and consulting services (planning, permitting, environmental, surveying, design, constructability review, plan checking, construction management, inspection, and commissioning/startup services) to public agencies throughout California, establishing a reputation as the company that *focuses on the details* to protect their clients' interests and bottom line.

The firm currently employs **approximately 45 people**, including 15 registered civil engineers, 4 licensed land surveyors, 2 environmental specialists, 10 construction inspectors, and a supporting staff of graduate engineers (civil and mechanical), designers, drafters, secretaries, and surveyors. All of our personnel are based in our downtown Riverside office.

The firm's principals and senior engineers are not just managers, but are always directly involved in the details of each of the projects they oversee to ensure that the firm's clients are provided with the benefit of their experience and expertise. The firm's principals include:

- Robert A. Krieger, P.E., Chairman of the Board
- Charles A. Krieger, P.E., President
- Philip E. Strom, P.E., Vice President/ Corporate Secretary
- Patrick M. Watson, P.E., Vice President/ Chief Financial Officer

Krieger & Stewart has extensive experience in providing engineering services for public works projects. In providing these services, we

emphasize the use of experienced staff and appropriate equipment, and pay close attention to details throughout all phases of project implementation.

Krieger & Stewart's experience includes providing engineering services related to the following:

- Planning, including Master Plans, Urban Water Management Plans, Groundwater Management Plans, Feasibility Reports, Annexations, and Reorganizations
- Environmental Documents for compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA)
- Industrial Wastewater Pretreatment Program Implementation
- Project Financing, including Loan Applications, Grant Applications, and Formation of Assessment Districts (including approvals pursuant to Proposition 218)
- Right-of-Way and Site Acquisition
- Environmental Permit Acquisition (e.g. wetlands, endangered species, wastewater and storm water discharges)
- Encroachment Permit Acquisition
- Design and Construction Surveying
- Contract Administration and Inspection
- Design and Construction Engineering for Water, Wastewater, and Recycled Water Conveyance, Storage, Treatment, and Pumping Facilities, as well as Hydroelectric Power Plants and Storm Water Conveyance Facilities
- Design and Construction Engineering for Park, Streetscaping, Landscaping, Road, Highway, and Storm Drainage Improvements
- Rate Studies for Development of Fees and Charges
- Water, Wastewater, and Storm Water Quality Studies
- Water Rights
- Plan Checking

We maintain a complete line of technologically advanced engineering, accounting, and word processing computer equipment and software, as





well as a large inventory of advanced surveying and field test equipment.

Krieger & Stewart is familiar with the AWWA Water Audit Software required for compliance with Sections 10631(e) (1) (J) and 10631(e) (3) (A) and (B), SB1420, and has obtained the current version of this Excel-based software. We are also familiar with other recent changes to the Urban Water Management Act requirements, including distribution system asset management programs, and requirements for estimation of the effects of codes, standards, and ordinances on water demands. We will be attending CDWR workshops tentatively scheduled for early November 2015 to develop a complete understanding of new regulations.

SPECIFIC RELATED EXPERIENCE

Krieger & Stewart has provided engineering services related to water supply in Riverside County for over 40 years, including preparation of numerous engineering studies related to water supply and water rights.

Our relevant project experience is listed below. For projects indicated with an *, we have provided more detailed information in Section II, References, as requested in the RFP.

Urban Water Management Plans and Domestic Water System General Plans

- **Desert Water Agency**
 - Urban Water Management Plans*
 - 2010, 2005 and 2008 Supplement, and 1985; *approved to prepare 2015*
 - Domestic Water System General Plans
 - 2008, 1998, 1992, 1988, 1980, and 1971
- **Rubidoux Community Services District**
 - Urban Water Management Plans*
 - 2010, 2005, 2000, 1995, and 1990; *approved to prepare 2015*
- **Indian Wells Valley Water District**
 - Urban Water Management Plans*
 - 2010, 1995, 1990, and 1985
 - Domestic Water System General Plans
 - 1997, 1990, 1977 and 1985 Addendum, and 1972

- **City of Colton**
 - Urban Water Management Plans
 - 2005 and 1995
- **Valley Water Company**
 - Urban Water Management Plans
 - 2005 and 2000
- **Murrieta County Water District (now part of Western Municipal Water District)**
 - Urban Water Management Plan (2000)

Water Supply Assessments

- **Riverside County Economic Development Agency, Facilities Management Division**
 - Water Supply Assessment for East County Detention Center Expansion (Indio Jail) Project (2013)*
 - Water Supply Assessment for Riverside County Regional Detention Center (Hub Jail) Project (2009, via LSA Associates)
- **City of Colton**
 - Water Supply Assessment for Pellissier Ranch Specific Plan (2008)
 - Water Supply Assessment for West Valley Specific Plan Amendment (2008)

Groundwater Replenishment Assessment Engineer's Reports

- **Desert Water Agency**
 - Engineer's Reports for Groundwater Replenishment and Assessment Program for the Whitewater River Subbasin (annually 1978 through 2015)
 - Engineer's Reports for Groundwater Replenishment and Assessment Program for the Mission Creek Subbasin (annually 2003 through 2015)
 - Engineer's Report for Groundwater Replenishment and Assessment Program for the Garnet Hill Subbasin (2015)
- **Coachella Valley Water District**
 - Engineer's Report for the West Whitewater River Subbasin Area of Benefit (2015)
 - Engineer's Report for the East Whitewater River Subbasin Area of Benefit (2015)
 - Engineer's Report for the Mission Creek Subbasin Area of Benefit (2015)



Engineer's Report for the Mission Creek Subbasin Area of Benefit (2003)

Expert Witness Services related to Groundwater Replenishment

- Krieger & Stewart has been providing expert services to the **Desert Water Agency** regarding its groundwater replenishment programs in the Upper Coachella Valley Groundwater Basin since 1978.

PROPOSED PROJECT TEAM

Krieger & Stewart has assembled a **project team comprising senior members** that possess **superior experience and qualifications** for preparing the City of Banning 2015 Urban Water Management Plan, including staff members who have **previously provided similar services** to other public agency clients.

Our team's qualifications were borne out of numerous, successful past projects for many public agencies. Please see **Krieger & Stewart's Qualifications of Firm and Specific Related Experience** above.

Krieger & Stewart's key project personnel include:

Name	Title
Charles A. Krieger	Principal in Charge
David F. Scriven	Project Manager
Kimberly J. Luker	Project Engineer
Thomas M. West	Engineering Computer and Drafting Supervisor

Each member of the team has many years of experience and expertise related to providing the engineering services required by the City for this project.

An Organizational Chart and a Summary of Education and Experience for Krieger & Stewart's principals and key personnel are shown on **Figures I-1 and I-2** at the end of this section. **Figure I-2** also includes the professional registration and licensing information (number and year obtained) for our key personnel. The **resume** for

each key team member is also included at the end of this section.

In addition to the listed team members, additional members of our staff of registered and graduate engineers, surveyors, technicians, drafters, and administrative support will provide assistance as necessary to ensure completion of project tasks in accordance with the project schedule.

SPECIFIC QUALIFICATIONS AND DUTIES OF TEAM MEMBERS

- Charles A. Krieger

Charles A. Krieger is President of Krieger & Stewart, and has been associated with the firm for **30 years**. He obtained a Bachelor of Science Degree in Civil Engineering from the University of California, Davis. He has been a **registered civil engineer** in California since 1989.

Krieger has extensive experience serving as district engineer and public works director; in that capacity, he has overseen the development of water system master plans, water conservation plans, **Urban Water Management Plans (UWMPs)**, and Integrated Regional Water Management Plans (IRWMPs). He participated (as a subconsultant) in the preparation of the Mission Creek/Garnet Hill Subbasins Water Management Plan and the Coachella Valley Basin Salt/Nutrient Management Plan.

Krieger will serve as Principal in Charge for the project. As such, he will be responsible for overseeing all services provided by the project team and reviewing all materials prior to submission to the City.

- David F. Scriven

David F. Scriven is a Senior Engineer of Krieger & Stewart, and has been associated with the firm for **31 years**. He obtained a Bachelor of Science Degree in Systems Ecology from the University of California, Riverside, a Bachelor of Science Degree in Civil Engineering from California State Polytechnic University, Pomona, and a Master of Science Degree in Engineering (Civil/Environmental) from the University of California, Davis. He has been a **registered civil engineer** in California since 1987.



Scriven has been the primary author of numerous UWMPs and has considerable experience related to water and wastewater system planning and environmental engineering, including participation in preparation of several water system master plans and water supply assessments. In addition, Scriven has been responsible for the preparation of the Engineer's Reports for Desert Water Agency's Groundwater Replenishment and Assessment Programs since 1999 and participated in preparation of the Engineer's Reports for Coachella Valley Water District's Groundwater Replenishment and Assessment Programs in 2015. Scriven was also involved in the preparation of CVWD's initial Engineer's Report for the Mission Creek Subbasin Area of Benefit in 2003.

Scriven will serve as Project Manager for the project, and, as such, will be responsible for communications with the City, supervision of project staff, and review and preparation of the draft and final UWMP and presentations. Scriven will attend and make the required presentations at the various meetings pertaining to the project. If Scriven is unable to attend a meeting, Krieger and Luker will substitute for him.

➤ **Kimberly J. Luker**

Kimberly J. Luker is an Associate Engineer of Krieger & Stewart, and has been associated with the firm for **10 years**. She obtained a Bachelor of Science Degree in Environmental Engineering from the University of California, Riverside. She has been a **registered civil engineer** in California since 2013.

Luker has considerable experience in the preparation of reports and analyses related to domestic water supply, including water supply assessments for inclusion in environmental impact reports, **UWMPs**, domestic water system analyses, water system general plans, and domestic water system appraisals. She participated in the preparation of the 2010 UWMPs for Desert Water Agency and Rubidoux Community Services District. In addition, Luker has been assisting in the preparation of the Engineer's Reports for Desert Water Agency's Groundwater Replenishment and Assessment Programs since 2010 and participated in the preparation of the Engineer's Reports for Coachella Valley Water District's Groundwater

Replenishment and Assessment Programs in 2015.

Luker will serve as Project Engineer for the project, and, as such, will assist Scriven in gathering, compiling, and analyzing data and preparing the draft and final UWMPs and presentation materials.

➤ **Thomas M. West**

Thomas M. West is Supervisor of Krieger & Stewart's Computer Aided Design and Drafting staff, and has been associated with the firm for **25 years**. He obtained a Bachelor of Science Degree in Mathematics with a Minor in Physics from California State University, San Bernardino.

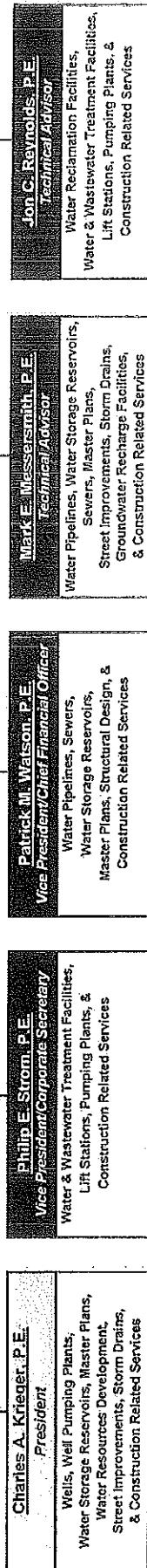
West has considerable experience in overseeing and the preparation of drawings, maps, and exhibits for a wide variety of engineering projects, with particular emphasis on water and wastewater facilities. He will be responsible for preparation of maps, figures, exhibits, and other graphics for the UWMP and presentations.

FIGURE I-1
CITY OF BANNING
2015 URBAN WATER MANAGEMENT PLAN
KRIEGER & STEWART PERSONNEL AND EXPERTISE
ORGANIZATIONAL CHART



Please note that Krieger & Stewart's key personnel for the 2015 Urban Water Management Plan preparation are highlighted in tan below and their resumes are also included in Section I.

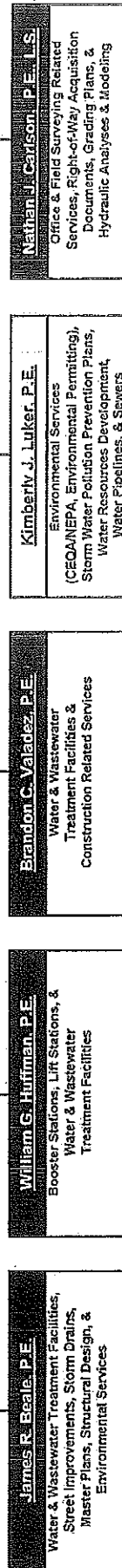
PRINCIPAL ENGINEERS & TECHNICAL ADVISORS



SENIOR ENGINEERS



PROJECT ENGINEERS



PROJECT DESIGNERS / SPECIALISTS



SUPPORT STAFF

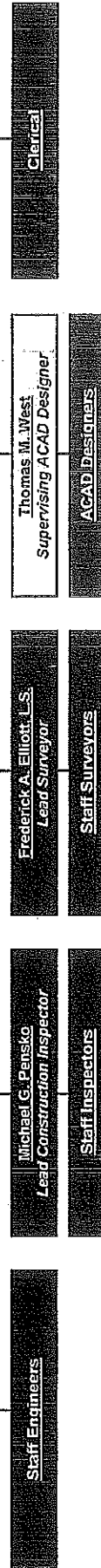


FIGURE I-2
CITY OF BANNING
2015 URBAN WATER MANAGEMENT PLAN
KRIEGER & STEWART KEY PERSONNEL
SUMMARY OF EDUCATION AND EXPERIENCE

Name	Academic Degree		California Registration/ License Number	Year Registration was Obtained	Years of Experience at Krieger & Stewart	Total Years of Experience
	Highest Academic Degree	Area of Specialization				
Chairman of the Board:						
Robert A. Krieger (Technical Advisor)	Bachelor of Science	Engineering	RCE 15255	1965	44	54
Principal Engineers:						
Charles A. Krieger*	Bachelor of Science	Civil Engineering	RCE 44545	1989	30	30
Philip E. Strom	Bachelor of Science	Civil Engineering	RCE 37263	1983	26	36
Patrick M. Watson	Master of Science	Structural Engineering	RCE 43744	1988	29	30
Mark E. Messersmith (Technical Advisor)	Master of Science	Environmental Engineering	RCE 22020	1972	42	48
Jon C. Reynolds (Technical Advisor)	Master of Science	Civil Engineering	RCE 20453	1971	36	49
Senior Engineers:						
Josh P. MacPeck	Bachelor of Science	Civil Engineering	RCE 62220	2001	16	19
David F. Scriven*	Master of Science	Civil/Environmental Engineering	RCE 42922	1987	31	35
Sinisa Saric	Bachelor of Science	Civil Engineering / Surveying	RCE 65367 PLS 8737	2003 2010	19	28
Sabrina A. Nies	Bachelor of Science	Civil Engineering	RCE 71524	2007	11	13
Project Engineers:						
James R. Beale	Bachelor of Science	Mechanical Engineering	RCE 73746	2009	8	15
William G. Huffman	Bachelor of Science	Civil Engineering	RCE 70939	2007	11	13
Brandon C. Valadez	Bachelor of Science	Civil Engineering	RCE 78326	2011	8	8
Kimberly J. Luker*	Bachelor of Science	Environmental Engineering	RCE 81145	2013	10	10
Nathan J. Carlson	Bachelor of Science	Civil Engineering	RCE 83177	2014	5	11
Support Staff:						
M. Wayne Ewing		Right-of-Way			20	50
Frederick A. Elliott	Associate of Arts	Surveying	PLS 4741	1979	19	48
Thomas M. West*	Bachelor of Science	Engineering Computer and Drafting			25	25

* Project Team Member

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CITY OF BANNING
2015 URBAN WATER MANAGEMENT PLAN
KRIEGER & STEWART, INCORPORATED
STAFF RESUME

CHARLES A. KRIEGER

Years of Experience: 30

Years at Krieger & Stewart: 30

License: California Registered Civil Engineer No. 44545

Education: Bachelor of Science in Civil Engineering, University of California, Davis

Professional

Summary: As of 2011, Krieger is President and CEO of Krieger & Stewart, Incorporated. Krieger's responsibilities have included technical expertise, public acceptance, and funding for a variety of public agency projects, ranging in cost from \$1M to \$15M.

Krieger's experience includes serving as District Engineer for numerous special districts; investigation of alternative aqueduct systems for State Water Project Contractors; investigation of water resources, including ground water, spring water, surface water, and imported or supplemental water supplies, also groundwater recharge and conjunctive use; preparation of engineering appraisals of water and wastewater systems; preparation of water, wastewater, and recycled water general or master plans; preparation of water, wastewater, and recycled water environmental impact reports; supervision of design engineering services including construction document preparation for water, wastewater, recycled water, drainage, and flood control projects; supervision of construction engineering services, including construction management and construction inspection for water, wastewater, recycled water, drainage, and flood control projects; service as consultant to cities, counties, and special districts on public works projects, particularly water, wastewater, recycled water, and flood control; and service as engineering consultant or expert witness in disputed or litigated matters involving land, easements, water rights, water (ground water, spring water, surface water), wastewater, recycled water, irrigation, drainage, flooding, construction, and valuation.

Relevant Project Experience:

Krieger has been involved in preparation of the following:

- Indian Wells Valley Water District's Urban Water Management Plan (2010, 1995, 1990, and 1985)
- City of Colton's Urban Water Management Plan (2005 and 1995)
- Coachella Valley Water District's Engineer's Report for the Mission Creek Subbasin Area of Benefit (2015 and 2003)
- Coachella Valley Water District's Engineer's Report for the East Whitewater River Subbasin Area of Benefit (2015)
- Coachella Valley Water District's Engineer's Report for the West Whitewater River Subbasin Area of Benefit (2015)
- Eastern Municipal Water District's 2008/2009 Recycled Water Operations Plan and Master Plan
- City of Colton's Water Supply Assessment for Pellissier Ranch Specific Plan (2008)
- City of Colton's Southwest 44 Sewer Facilities Master Plan (2008)
- Desert Water Agency's Domestic Water Facilities General Plan (2008, 1998, 1992, and 1988)
- Indian Wells Valley Water District's Domestic Water General Plan (1997, 1990, and 1985 Addendum)
- City of Colton's 1996 Water Master Plan Update
- Coachella Valley Water District's Salt/Nutrient Management Plan (participated as subconsultant)
- Coachella Valley Water District's Mission Creek/Garnet Hill Subbasins Management Plan (participated as subconsultant)
- Indian Wells Valley Municipal Water District's Southwest Well Field Infiltration Pilot Study (2004)
- Expert Witness Services for Desert Water Agency related to groundwater and surface water supply issues



CITY OF BANNING
2015 URBAN WATER MANAGEMENT PLAN

KRIEGER & STEWART, INCORPORATED
STAFF RESUME

DAVID F. SCRIVEN

Years of Experience: 35

Years at Krieger & Stewart: 31

License: California Registered Civil Engineer No. 42922
California Qualified SWPPP Developer and Practitioner (QSD/QSP) Certificate No. 23439

Education: Bachelor of Science in Systems Ecology, University of California, Riverside
Bachelor of Science in Civil Engineering, California State Polytechnic University, Pomona
Master of Science in Engineering (Civil/Environmental), University of California, Davis

Professional

Summary: Scriven specializes in planning, funding, environmental analysis, permitting, design, and construction of water, recycled water, and wastewater projects ranging in costs from less than \$1M to \$50M. Scriven is responsible for preparation of initial studies, environmental impact reports, and other CEQA documents, as well as providing critical review of environmental reports and studies prepared by others; preparation and submittal of applications for various environmental permits (including stream bed alteration agreements, endangered species incidental take permits, 404 wetlands permits, 401 water quality certifications, wastewater, storm water, and dewatering discharge permits, and air quality permits); and preparation of water supply assessments, storm water pollution prevention plans, water quality management plans, industrial wastewater pretreatment programs, and other reports, plans and studies pertaining to water and wastewater quality and compliance with environmental regulations. Scriven also has considerable experience in providing consulting services related to water quality and contamination issues, and has served as an expert witness in several legal cases pertaining to groundwater contamination.

Relevant Project Experience:

Scriven has been involved with the preparation of the following:

- Desert Water Agency's Urban Water Management Plan (2015-In progress and 2010)
- Rubidoux Community Services District's Urban Water Management Plan (2015-In progress, 2010, 2005, 2000, 1995, and 1990)
- Indian Wells Valley Water District's Urban Water Management Plan (2010, 1995, 1990, and 1985)
- City of Colton's Urban Water Management Plan (2005 and 1995)
- Valley Water Company's Urban Water Management Plan (2005 and 2000)
- Murrieta County Water District's Urban Water Management Plan (2000)
- Riverside County Economic Development Agency, Facilities Management Division's Water Supply Assessment for East County Detention Center Expansion (Indio Jail) (2013)
- Riverside County Economic Development Agency, Facilities Management Division's Water Supply Assessment for Riverside County Regional Detention Center (Hub Jail) (2009 under contract with LSA Associates)
- City of Colton's Water Supply Assessment for Pellissier Ranch Specific Plan (2008)
- City of Colton's Water Supply Assessment for West Valley Specific Plan (2008)
- Desert Water Agency's Engineer's Report for Groundwater Replenishment and Assessment Program for the the Whitewater River Subbasin (annually, 1999 through 2015)
- Desert Water Agency's Engineer's Report for Groundwater Replenishment and Assessment Program for the the Mission Creek Subbasin (annually, 2003 through 2015)
- Desert Water Agency's Engineer's Report for Groundwater Replenishment and Assessment Program for the the Garnet Hill Subbasin (2015)
- Coachella Valley Water District's Engineer's Report for the Mission Creek Subbasin Area of Benefit (2015 and 2003)
- Coachella Valley Water District's Engineer's Report for the East Whitewater River Subbasin Area of Benefit (2015)
- Coachella Valley Water District's Engineer's Report for the West Whitewater River Subbasin Area of Benefit (2015)
- Indian Wells Valley Municipal Water District's Southwest Well Field Infiltration Pilot Study (2004)



**CITY OF BANNING
2015 URBAN WATER MANAGEMENT PLAN**

**KRIEGER & STEWART, INCORPORATED
STAFF RESUME**

KIMBERLY J. LUKER

Years of Experience: 10

Years at Krieger & Stewart: 10

License: California Registered Civil Engineer No. 81145
California Qualified SWPPP Developer (QSD) as RCE No. 81145
California Qualified SWPPP Practitioner (QSP) Certificate No. 21740

Education: Bachelor of Science in Environmental Engineering, University of California, Riverside

Professional

Summary: Kimberly J. Luker is an Associate Engineer, with experience in planning, design, environmental permitting, and construction of various water and sewer projects. Luker is a Registered Civil Engineer, and a Qualified SWPPP Developer (QSD) and Practitioner (QSP) in California. Luker has substantial experience in preparing and reviewing SWPPPs, preparing hydrology and hydraulic reports, performing field SWPPP inspection and implementation compliance services for construction projects, and preparing and reviewing other reports pertaining to water and wastewater quality and compliance with environmental regulations. Luker also has experience in preparing and reviewing reports related to water supply assessment, urban water management, and groundwater replenishment, and has assisted in preparing expert witness testimony in several legal cases pertaining to water rights, water system appraisals, and damage claims. Luker's experience also includes preparing engineering cost estimates, evaluating environmental impacts from proposed construction, management of wastewater pretreatment (including permitting and inspection of industrial facilities), and analysis of domestic water systems (including existing and future daily demands and water storage requirements).

Luker is proficient in utilizing CIVILDESIGN's Rational Method Hydrology Program Package (Version 7.1), CIVILDESIGN's Unit Hydrograph Routing Program Package (Version 8.1), CIVILDESIGN's Flood Hydrograph Routing Program Package (Version 7.3), and CIVILDESIGN's Water Surface and Pressure Gradient Hydraulic Analysis System Program (Version 14.06).

Relevant Project Experience:

Luker has been involved with the preparation of the following:

- Desert Water Agency's Urban Water Management Plan (2015-in progress and 2010)
- Rubidoux Community Services District's Urban Water Management Plan (2015-in progress and 2010)
- Indian Wells Valley Water District's Urban Water Management Plan (2010)
- Riverside County Economic Development Agency, Facilities Management Division's Water Supply Assessment for East County Detention Center Expansion (Indio Jail) (2013)
- Riverside County Economic Development Agency, Facilities Management Division's Water Supply Assessment for Riverside County Regional Detention Center (Hub Jail) (2009 under contract with LSA Associates)
- City of Colton's Water Supply Assessment for Pellissier Ranch Specific Plan (2008)
- City of Colton's Water Supply Assessment for West Valley Specific Plan (2008)
- Desert Water Agency's Engineer's Report for Groundwater Replenishment and Assessment Program for the the Whitewater River Subbasin (annually, 2010 through 2015)
- Desert Water Agency's Engineer's Report for Groundwater Replenishment and Assessment Program for the the Mission Creek Subbasin (annually, 2010 through 2015)
- Desert Water Agency's Engineer's Report for Groundwater Replenishment and Assessment Program for the the Garnet Hill Subbasin (2015)
- Coachella Valley Water District's Engineer's Report for the Mission Creek Subbasin Area of Benefit (2015)
- Coachella Valley Water District's Engineer's Report for the East Whitewater River Subbasin Area of Benefit (2015)
- Coachella Valley Water District's Engineer's Report for the West Whitewater River Subbasin Area of Benefit (2015)
- Desert Water Agency's Domestic Water Facilities General Plan (2008)
- Expert Witness Services for Desert Water Agency related to groundwater and surface water supply issues



CITY OF BANNING
2015 URBAN WATER MANAGEMENT PLAN

KRIEGER & STEWART, INCORPORATED
STAFF RESUME

THOMAS M. WEST

Years of Experience: 25

Years at Krieger & Stewart: 25

Education: Bachelor of Science in Mathematics, Minor in Physics, California State University, San Bernardino

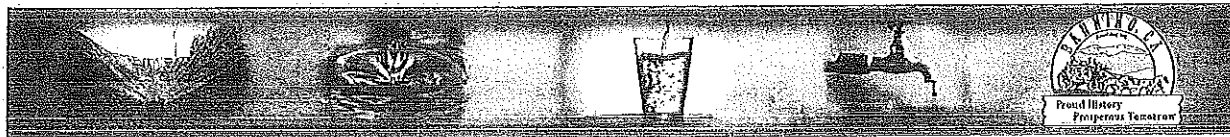
Professional Summary: Thomas M. West is the supervisor of Krieger & Stewart's computer aided design/drafting and engineering computer department. Mr. West is responsible for drafting and designing various engineering facilities, including civil, mechanical, and electrical design for projects such as water and wastewater treatment plants, water wells, storage reservoirs, water pipelines, sewage lines, grading plans, traffic control plans, demolition plans, standard drawings, property boundaries, and various exhibits and figures. He is proficient in utilizing design software, such as AutoCAD 2007-2013, AutoDesk Land Desktop, AutoDesk Civil 3D 2013, and AutoDesk Raster Design 2013, as well as various computer modeling programs (i.e. H₂O Net).

West has also provided construction observation of water system facilities, including water wells and water storage reservoir coating operations, and boundary, topographic, and construction surveying for water and wastewater system facilities.

Project Experience:

1. **Desert Water Agency's Shallow Groundwater Recovery Well System**
Prepared construction drawings for two recycled water production wells, each being 16" diameter, 600'± deep with 220' of 16" diameter blank casing and 380' of 16" diameter well screen, and site improvements.
2. **Rancho California Water District's Anza Reservoir No. 2**
Prepared preliminary design exhibits for 3 MG reservoir alternatives, including abovegrade, partially buried, and buried reservoirs of welded steel and prestressed concrete construction, including considerations of access road alternatives, excavation and embankment requirements, stormwater drainage facilities and piping, inlet/outlet piping, visual impacts of the reservoir, geotechnical constraints, and environmental constraints.
3. **Riverside County Flood Control & Water Conservation District's Monroe Channel, Stage 4**
Prepared preliminary design exhibits for multiple storm drain alternatives, including precast reinforced concrete box and cast-in-place reinforced concrete box storm drain, with considerations for size requirements based on hydraulic analyses, alignments, rights-of-way and easements, excavation requirements, and relocation of utilities.
4. **Western Municipal Water District's March Air Reserve Base Wastewater Reclamation Facility (Western Water Recycling Facility) - Phase 2 Expansion**
Prepared preliminary design exhibits and construction drawings for expansion of 1.0 MGD capacity secondary treatment facilities to 3.0 MGD capacity secondary and tertiary treatment facilities, including: (1) headworks with two mechanical bar screens, two vortex-type grit removal chambers, monitoring, and metering; (2) sewage lift station; (3) three primary sedimentation tanks; (4) three oxidation ditch-type aeration basins with two 75 hp slow speed surface aerators and control system for simultaneous nitrification and denitrification; (5) four circular secondary clarifiers; (6) two secondary effluent balancing ponds; (7) tertiary influent pump station; (8) three cloth media-type filter units; (9) four chlorine contact chambers; (10) tertiary storage pond; and (11) recycled water booster station with four 200 hp pumping units and algae removal screens; construction of a recycled water pump station with four 200 hp vertical turbine pumping units, each with variable frequency drives and three automatically cleaning algae filter/strainers; and modification of recycled storage pond to add two concrete lined 1.2 MG balancing ponds.
5. **Eastern Municipal Water District's Wine Country Infrastructure Sewer Project**
Prepared construction drawings for 37,500± LF of 8" to 21" gravity sewers in Rancho California Road, Monte de Oro Road, Calle Contento, and across the Roripaugh Ranch Development, and two lift stations and associated force mains.
6. **City of Riverside's Crest Lift Station Replacement**
Prepared construction drawings for a 265 gpm capacity submersible sewage lift station with two 10 hp submersible pumping units in 29' deep wet well and emergency storage chamber with 1 hour detention time; electrical switchgear, motor control center, manual transfer switch for portable generator connection, and controls; and removal and demolition of existing lift station facilities.





SECTION II - REFERENCES

We believe that our long-standing service to a variety of public agency clients throughout California, many on a continuous basis throughout our 44 years in business, is a testimonial to the quality of services we provide. As requested in the City's RFP, we have included references for at least three public agency clients for whom we have provided similar services. We encourage City staff to confer with our references.

- Desert Water Agency (DWA)
1200 Gene Autry Trail South
Palm Springs, CA 92264
Tel: (760) 323-4971

Project: 2010 Urban Water Management Plan

DWA is a State Water Project Contractor who utilizes multiple sources of water to serve its customers, including groundwater, surface water, recycled water, and State Water Project water allocations exchanged for Colorado River water. DWA provides the following services: domestic and municipal water (for residential and commercial development), recycled water (for municipal park and landscape irrigation), sanitary sewage (for Cathedral City area), hydroelectric power (for energy delivery to Southern California Edison Company), solar energy power (for energy delivery to DWA Operations Center with excess to Southern California Edison Company), and groundwater basin management (for groundwater replenishment and assessment therefor) within the Upper Coachella Valley Groundwater Basin. The population within DWA's service area was over 60,000 in 2010, and this number nearly doubles during the tourist season.

Krieger & Stewart prepared DWA's 1985, 2005 (and 2008 supplement), and 2010 UWMPs, and is currently preparing DWA's 2015 UWMP. The 2010 UWMP detailed DWA's own water management activities as well as the Agency's coordinated water management activities with other local water purveyors such as Coachella Valley Water District, Mission Springs Water District, and The Metropolitan Water District of Southern California.

As part of preparation of DWA's 2010 UWMP in accordance with the provisions of the Urban Water Management Act and SBx7-7, Krieger &

Stewart attended and represented DWA at UWMP workshops and webinars held by Castaia Water Agency and CDWR, reviewed pertinent documents and data, developed methodologies and measures regarding water supply for its customers as well as for endangered or protected species, prepared public notices, attended the public hearing, and submitted the final UWMP to the CDWR, State Library, and other necessary entities.

- 1 Completed: June 2011
- 1 Approximate Cost: \$165,000
- 1 K&S Key Personnel:
 - Charles Krieger
 - David Scriven
 - Kimberly Luker

References:

- 1 David K. Luker, General Manager
dluker@dwa.org
- 1 Mark S. Krause, Assistant General Manager
mark@dwa.org
- 1 Steve Johnson, Operations Engineer
sjohnson@dwa.org

- Rubidoux Community Services District (RCSD)
3590 Rubidoux Boulevard
Jurupa Valley, CA 92509
Tel: (951) 684-7580

Project: 2010 Urban Water Management Plan

As of the 2010 UWMP, RCSD served a population of approximately 26,200 people through approximately 6,200 service connections utilizing groundwater extracted from the Upper Santa Ana Groundwater Basin.

Krieger & Stewart prepared RCSD's 1990, 1995, 2000, 2005, and 2010 UWMPs, and is preparing RCSD's 2015 UWMP. Krieger & Stewart prepared RCSD's 2010 UWMP in accordance with the provisions of the Urban Water Management Act and SBx7-7, including review of pertinent documents and data, development methodologies and measures regarding water supply and conservation, preparation of public notices, attendance at the public hearings, and submittal of the final UWMP to the CDWR, State Library, and other necessary entities.



- 1 Completed: November 2011
- 1 Approximate Cost: \$35,000
- 1 K&S Key Personnel:
 - Charles Krieger
 - David Scriven
 - Kimberly Luker

References:

- 1 David D. Lopez, Secretary-Manager
dave@rcsd.org
- 1 Steven W. Appel, District Engineer
steve@rcsd.org

- Indian Wells Valley Water District (IWWVD)
500 West Ridgecrest Boulevard
Ridgecrest, CA 93555
Tel: (760) 375-5086

Project: 2010 Urban Water Management Plan

As of the 2010 UWMP, IWWVD served a population of approximately 31,000 people through approximately 12,500 service connections utilizing groundwater extracted from the Indian Wells Valley Groundwater Basin.

Krieger & Stewart prepared IWWVD's 1985, 1990, 1995, and 2010 UWMPs. Krieger & Stewart prepared IWWVD's 2010 UWMP in accordance with the provisions of the Urban Water Management Act and SBx7-7, including review of pertinent documents and data, development of methodologies and measures regarding water supply and conservation, preparation of public notices, attendance at the public hearings, and submittal of the final UWMP to the CDWR, State Library, and other necessary entities.

- 1 Completed: June 2011
- 1 Approximate Cost: \$50,000
- 1 K&S Key Personnel:
 - Charles Krieger
 - David Scriven
 - Kimberly Luker

References:

- 1 Don Zdeba, General Manager
don.zdeba@iwwvd.com
- 1 René E. Morquecho, Chief Engineer
reneem@iwwvd.com

- Riverside County Economic Development Agency, Facilities Management Division
3403 10th Street, Suite 500
Riverside, CA 92501
Tel: (951) 955-8916

Project: Water Supply Assessment for East County Detention Center

Krieger & Stewart's services consisted of assessment of the water supply available to serve the proposed detention facility as part of the project's environmental impact report in accordance with Senate Bills 610 and 221, review of facility design and water use projections, and preparation of the report and exhibits summarizing our findings.

- 1 Completed: April 2013
- 1 Approximate Cost: \$45,000
- 1 K&S Key Personnel:
 - Charles Krieger
 - David Scriven
 - Kimberly Luker

Reference:

- 1 Rob Field, Assistant County Executive Officer
rfield@rivcoeda.org



SECTION III - STRATEGY AND IMPLEMENTATION PLAN

GENERAL

Our Strategy and Implementation Plan section is organized in the following topics:

- Project Understanding
- Essential Considerations and Approach
- Scope of Services
- Preliminary Schedule

PROJECT UNDERSTANDING

In order to gain a **comprehensive understanding** for preparation of the City of Banning 2015 Urban Water Management Plan (UWMP), and to develop an **effective approach for project success**, we have gathered information and knowledge from the following sources:

- ✓ The City's Request for Proposals and attachments
- ✓ *City of Banning 2010 Urban Water Management Plan*, Geoscience, June 2011.
- ✓ *City of Banning Amended 2010 Urban Water Management Plan*, Geoscience, November 26, 2012
- ✓ *Draft 2015 Guidebook for Urban Water Suppliers*, California Department of Water Resources (CDWR), June 2015
- ✓ Governor's Executive Order B-29-15 regarding mandatory 25% water use reduction, April 2015
- ✓ Highland Springs Conference and Training Center (Petitioner) v. City of Banning (Respondent), SCC/Black Bench, LLC (Real Party), and consolidated cases RIC 460950, RIC 461035, RIC 461069

The 2015 UWMP will consist of updating Banning's 2010 UWMP in accordance with the current requirements issued by the CDWR under the Urban Water Management Act of 1983.

Preparation of the 2010 UWMP required water suppliers to determine their baseline per capita water use and establish targets for the 2015 and 2020 reporting years in order to be in compliance with the Water Conservation Act of 2009.

We understand that the City's baseline per capita water use, as reported in its 2010 UWMP was 315

gallons per capita-day (GPCD), and its 2015 and 2020 targets are 283 and 252 GPCD, respectively.

Current conditions within the City of Banning are as follows:

- Residential population of 30,325
- 23,000 active service connections
- 100% of water supplied by 24 wells in local groundwater aquifers (3 wells being co-owned with Beaumont Cherry Valley Water District)

Engineering services required for the project generally include:

- Data Review and Analysis
- Development of Demand Projections
- Analysis of Demand Management Measures (DMMs)
- Preparation of 2015 UWMP in Accordance with the 2015 Urban Water Management Plan Guidebook for Urban Water Suppliers

ESSENTIAL CONSIDERATIONS AND APPROACH

Our essential considerations for the project have been divided into the following sections:

- *General Considerations*, setting forth essential considerations for preparation of the 2015 UWMP required by CDWR; and
- *Project-Specific Considerations and Approach*, setting forth essential considerations unique to Banning and its water use reduction, along with our recommended approach to address these considerations.

General Considerations

Our preliminary review of the draft 2015 Guidebook released by CDWR has revealed a number of critical issues that must be carefully considered during the preparation of the 2015 UWMP to minimize costs, and avoid costly modifications and additions during preparation. Such considerations include the following:

- Changes to the California Water Code (CWC) since the 2010 UWMPs including:
 - 1 Submittal date of July 1, 2016



- Required standardized forms and tables for 2015 UWMPs
- Required electronic submittal of UWMP to CDWR by online submittal tool which is currently being developed
- Demand Management Measures Reporting Requirements (CWC Section 10631 (f) (1) and (2), AB 2067)
- Water Losses Reporting Requirements using AWWA Water Audit Software (CWC Section 10631 (e) (1) (J) and (e) (3) (A) and (B), SB 1420)
- Voluntary Reporting of Passive Savings (CWC Section 10631 (e) (4), SB 1420)
- Voluntary Reporting of Energy Intensity (CWC Section 10631.2 (a) and (b), SB 1036)
- Voluntary Reporting of Decreased Reliance on the Delta (CCR Title 23 Division 6, Section 5003(c) (1) (C))
- Demonstration of compliance with 2015 interim targets set forth in the 2010 UWMPs
- Consistency with other reports such as local planning documents, electronic Annual Reports to the Drinking Water Program, and Monthly Urban Water Conservation Reporting to the State Water Resources Control Board
- Description of water conservation efforts over the past five years and planned water conservation efforts to meet 2020 per capita use targets
- Notice of public hearing in accordance with California Government Code Section 6066 and California Water Code Sections 10621(b) and 10642
- Submittal of plan no later than 30 days after adoption to CDWR, California State Library, Cities and Counties, and other appropriate agencies

Project-Specific Considerations and Approach

➤ 2015 Compliance

Observations

2015 is the first compliance year mandated by the Water Conservation Act of 2009, also referred to as SBx7-7. SBx7-7 allows water suppliers to revise the method used to determine its 2020 target within its 2015 UWMP.

In addition, according to its draft 2015 Guidebook, CDWR has determined that there are some discrepancies between the population data provided by the Department of Finance and the 2010 Census projections. If a water supplier did not use 2010 Census Data (which was not available when the 2010 UWMPs were being prepared). CDWR may require re-calculation of baseline population, per capita water use, and per capita targets for the 2015 UWMP.

Approach

We will review the method utilized to establish the baseline and target daily per capita water use in the City's 2010 UWMP and the population projections, and provide recommendations as to whether the City should update its previously selected target methodology and population projections in order to update its 2020 target.

Specifically, we will review the 2010 Census data, local Department of Finance population data, data presented in the City's 2010 UWMP, and the available methods to determine whether changes to the 2010 UWMP baseline and targets are necessary or beneficial to the City and its compliance with SBx7-7.

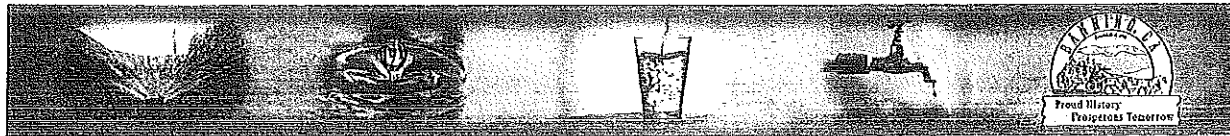
➤ 2020 Compliance

Observations

Since 2015 is a compliance year, water suppliers will be required to assess compliance with their established target for 2015 and also whether or not they are on track to achieve their 2020 target.

Approach

We will review the water conservation measures the City has implemented since its 2010 UWMP was adopted and the future water conservation measures the City plans to implement. We will assess current and planned conservation measures and projected demands to determine if the City has met its 2015 target and will meet its 2020 target.



SCOPE OF SERVICES

The minimum scope of services as set forth in the City's RFP is as follows:

- Task 1. Preliminary Work
- Task 2. Demand Analysis
- Task 3. System Description
- Task 4. System Supplies
- Task 5. System Demands by Customer Class
- Task 6. Water Supply Reliability / Water Shortage Contingency Planning
- Task 7. Demand Management Measures
- Task 8. Public and Stakeholder Outreach
- Task 9. Deliverables
- Task 10. Additional Services

We are prepared to provide all of the required services to the City of Banning necessary for successful and efficient preparation of the 2015 UWMP. However, we have taken the liberty to reorganize the tasks from those set forth in the RFP to accommodate Krieger & Stewart's typical sequence of engineering services, which has proven highly successful in the past. We understand that the City is requesting a minimum of ten (10) meetings over the course of providing project services; therefore, we have incorporated workshops, review meetings, conference call meetings, public and stakeholder meetings, and presentations at various stages of UWMP development totaling ten (10) meetings and conference calls into our scope.

Krieger & Stewart's recommended scope and sequence of services is as follows:

1. Initial/Data Needs Meeting
2. Review Existing Data
3. Review CDWR Guidebook Workshop Content
4. Preliminary 2015 UWMP and Workshop
5. Draft 2015 UWMP (50%)
6. 50% Draft 2015 UWMP Workshop with City Staff
7. Draft 2015 UWMP (95%)
8. 95% Draft 2015 UWMP Review Meeting with City Staff
9. Presentation Materials and Conference Call with City Staff for Review
10. Public and Stakeholder Outreach
11. Final 2015 UWMP
12. Final 2015 UWMP Review Conference Call with City Staff
13. Presentation of Final 2015 UWMP to City Council for Adoption

14. Submission to CDWR and Others
15. Amendments to Final 2015 UWMP (Optional)

Task 1 - Initial/Data Needs Meeting

Upon receiving notice to proceed, we will meet with City staff to discuss the project and data needed for us to prepare the 2015 UWMP before we begin providing services. At the meeting, we will present a memorandum identifying all data needed and submit same to the City.

We envision discussing, as a minimum, the following at the meeting:

- Data Requests (2010 - 2015, and Projected)
 - ❑ Groundwater extractions
 - ❑ Recycled water use
 - ❑ Imported water use
 - ❑ Total sales by sector or customer class (residential, commercial, etc.)
 - ❑ Sales to other agencies (if any)
 - ❑ System losses
 - ❑ Total service connections by meter size
 - ❑ Quantities collected by the City's wastewater reclamation plant
 - ❑ Future plans for recycled water use
 - ❑ Implementation of water conservation projects
- Baseline and targets (2010, 2015, and 2020)
- City's desire to provide voluntary or optional information in the UWMP
- Project schedule
- Project deliverables

We have included a preliminary schedule within our proposal. We will present a draft detailed schedule at the initial meeting.

For our proposal, we have assumed that at the conclusion of the Initial/Data Needs Meeting there will be consensus among City and K&S staff regarding requirements for the preparation of the 2015 UWMP and the draft schedule. We will then submit a revised detailed schedule to the City.

Task 2 - Review Existing Data

Our review of existing data will consist of obtaining and thoroughly reviewing all information requested based on the Initial Meeting and the City's 2010 UWMP and Amended 2010 UWMP. Upon review of the acquired information, we will contact the City if



additional information is needed to complete the Draft 2015 UWMP.

In addition, we plan to review the following documents:

- 2013 Cal Green Code
- City of Banning 2008-2014 Draft Housing Element Update
- City of Banning 2013-2021 Draft Housing Element Documents
- SCAG Population Projections
- 2010 Census Data
- California Department of Finance Data
- San Geronio Pass Water Agency Annual Reports on Water Conditions
- 2015 State Water Project Deliverability Capability Report.
- 2015 DWR Guidebook for Urban Water Suppliers (once published)
- 2015 Methodologies for Calculating Per Capita Water Use (once published)

Task 3 - Review CDWR Guidebook Workshop Content

The CDWR Guidebook Committee is currently in the process of completing its 2015 Guidebook for Urban Water Suppliers. The Guidebook was scheduled to be published July 1, 2015, but is still in the comment period. Upon finalization of the Guidebook, the Committee will hold workshops throughout the state to assist urban water suppliers in preparing their plans.

Krieger & Stewart believes the workshop will be beneficial in ensuring all CDWR requirements are met, and will attend a local workshop or the online webinar to obtain full understanding of the requirements set forth for the preparation of the 2015 UWMPs.

Based on our attendance at these workshops, we will present a summary of the CDWR's revised requirements to the City at a scheduled review meeting.

Task 4 - Preliminary 2015 UWMP and Review Workshop

We will prepare the preliminary framework for the 2015 UWMP for approval by the City. We anticipate the UWMP will consist of the following sections:

- Introduction
- Plan Preparation
- System Description
- System Demands
- Baseline and Targets
- System Supplies
- Water Supply Reliability (Supply v. Demand)
- Water Shortage Contingency
- Demand Management Measures (Best Management Practices)
- Plan Adoption, Submittal, and Implementation
- CDWR UWMP Checklist
- Standardized Tables
- SBx7-7 Verification Form
- References
- Appendices containing supporting documents and data

We will submit an electronic (PDF) copy of the Preliminary UWMP to City staff for review and comment. Hard copies of the preliminary 2015 UWMP will be provided upon request.

Upon submitting the Preliminary 2015 UWMP to the City, we will schedule a workshop with City staff to discuss development of the document.

Task 5 - Draft 2015 UWMP (50%)

Following the Preliminary UWMP Workshop, we will begin preparation of the Draft 2015 UWMP in accordance with all relevant requirements set forth in Parts 2.55 and 2.6 Division 6 of the Water Code, as currently amended, which include the Urban Water Management Act and SBx7-7 legislation.

The process will include, but is not limited to:

- Coordination and communication with City staff and other public agencies.
- Assessment of per capita water use reduction based on the baseline and target per capital water use set forth in the City's 2010 UWMP using historic and current water use data.



- Preparation of updated water demand analyses through 2040 reflecting adopted General Plan population, changes in water use and savings from current and future water conservation measures, demand from historic and current demand projections, existing and projected demand factors, consumption by customer class and factoring indoor and outdoor water use. We propose to utilize the straight line method to determine projected water demands, provided this method is acceptable to the City.
- Description of the City's system, including service area population and demographic data.
- Evaluation and projection of system supplies, including current and potential water sources, water rights, groundwater extractions, water transfers, recycled water use, water projects, and drought planning.
- Evaluation and projection of system demands by customer class, including unit demands for each major use class and indoor and outdoor water use; existing potable and non-potable demands; future potable and non-potable water demands for 10 year, 20 year, and buildout; distribution system losses; low income housing demands; baseline and targets from 2010 UWMP; and water use reduction plan.
- Analysis and description of water supply reliability and water shortage contingency planning, including normal year, single dry year, and multiple dry year supplies and demands; drought contingency plan; water supply reliability, and water quality.
- Evaluation of existing Demand Management Measures (DMMs), including recommendations for drought penalty costs, water budget allowances, tiered rate structure, and new requirements for reporting DMMs per AB 2067.
- Preparation of all other elements of the 2015 UWMP in accordance with CDWR's forthcoming 2015 Guidebook.
- Completion of CDWR's standardized tables and SBx7-7 Verification Form to be included as appendices to the 2015 UWMP.

When the Draft 2015 UWMP is 50% complete, we will submit an electronic (PDF) copy of same to City staff for review and comment. Hard copies of this draft will be provided upon request.

Task 6 - 50% Draft 2015 UWMP Workshop with City Staff

Upon submitting the 50% Draft 2015 UWMP to the City, we will schedule a workshop with City staff to discuss the draft document and project progress.

Task 7 - Draft 2015 UWMP (95%)

Following the 50% Draft 2015 UWMP workshop, we will incorporate staff comments into the documents and continue with plan development. We will submit an electronic copy of the Draft 2015 UWMP, with revisions highlighted, to the City for review prior to public review. Upon completion of the Draft 2015 UWMP, and review by our Principal-in-Charge for quality assurance/quality control, we will submit six (6) hard copies along with a PDF copy of same to City staff for review and comment. Digital copies on CD will also be provided to regional agencies and interested parties for comment, including the County of Riverside, Beaumont Cherry Valley Water District, and San Geronio Pass Water Agency, among others.

Task 8 - 95% Draft 2015 UWMP Review Meeting with City Staff

Upon submitting the Draft 2015 UWMP to the City and regional agencies, we will schedule a review meeting to discuss comments from staff and interested parties regarding the document. Following the meeting, we will incorporate staff comments into the draft documents and submit to the City the revised draft document, with the revisions highlighted for reference.

Task 9 - Presentation Materials and Conference Call with City Staff for Review

We will prepare presentation materials required for the public hearings and stakeholder meetings. We will schedule a conference call with the City to discuss the presentation materials. We have assumed that these presentations will be in a PowerPoint format. We will provide electronic (pdf) copies of the PowerPoint slides for approval prior to the hearings and meetings.



Task 10 - Public and Stakeholder Outreach

Pursuant to Water Code Section 10608.26, a public hearing is required to allow community input and to consider the economic impacts of the City's implementation of the provisions required by SBx7-7.

For our proposal, we have assumed City staff will publish all notices pertaining to the public hearing. We will attend two public hearings, one to review the draft UWMP and one for adoption of the final 2015 UWMP. Our Project Manager will attend the hearings and be available to answer any questions that may arise regarding the document.

Task 11 - Final 2015 UWMP

Following the public hearing, we will incorporate any additional comments by City staff as well as any public comments received. We will then prepare the final 2015 UWMP for adoption.

Task 12 - Final 2015 UWMP Review Conference Call with City Staff

We will schedule a conference call with City staff for final review and to discuss any remaining and unresolved issues with the 2015 UWMP. Any further staff comments will be incorporated into the final 2015 UWMP prior to adoption by the City Council and submission to CDWR.

Task 13 - Presentation of Final 2015 UWMP to City Council for Adoption

We will present the Final 2015 UWMP to the City Council for adoption at a regularly scheduled City Council Meeting (anticipated to be June 7, 2016).

Task 14 - Submission to CDWR and Others

According to CDWR, the final 2015 UWMP must be submitted electronically to CDWR, rather than in printed form. Once the final plan is adopted, we will submit a digital copy of the final 2015 UWMP to CDWR, one hardcopy and one digital copy to the California State Library, and hard copies to the County of Riverside and other interested parties as deemed appropriate by the City.

After the UWMP has been successfully submitted to all entities, we will compile all Excel spreadsheets,

Word documents, AutoCAD exhibits, PDFs, and other digital files prepared as part of the project on a flash drive or CD and provide to City staff as requested in the RFP.

Task 15 - Amendments to Final 2015 UWMP (Optional)

Though it is not anticipated that an amendment to the 2015 UWMP will be required, Krieger & Stewart will assist the City in amending the 2015 UWMP if the need should arise. The fee associated with amendments to the final document is included in our estimated fee proposal as an optional task.

PRELIMINARY SCHEDULE

A proposed preliminary project schedule is set forth below based on our understanding that the City intends to issue Notice to Proceed on November 30, 2015 and present the final 2015 UWMP to the City Council for adoption by June 7, 2016 and submittal to CDWR before the July 1, 2016 deadline. **We will present a draft detailed schedule to the City at the Initial/Data Need Meeting and then submit a revised schedule after that meeting.**

- Early November 2015: CDWR Guidebook Workshops (tentatively scheduled for November 2 through 6).
- November 30, 2015: K&S receives Notice to Proceed.
- December 7, 2015: K&S conducts Initial/Data Need Meeting with City staff.
- January 15, 2016: K&S conducts Preliminary 2015 UWMP Workshop with City.
- January 2016: Public/Stakeholder Meeting
- February 5, 2016: K&S submits 50% Draft 2015 UWMP to City staff for review and comment.
- February 19, 2016: K&S conducts review meeting with City staff on 50% Draft 2015 UWMP.
- March 2016: Public/Stakeholder Meeting
- March 10, 2016: City distributes notice of intent to adopt a 2015 UWMP to regional agencies
- April 7, 2016: K&S submits 95% Draft 2015 UWMP incorporating staff comments.



- April 12, 2016: K&S distributes Draft 2015 UWMP for public review.
- April 26, 2016: City holds public hearing regarding the Draft 2015 UWMP.
- May 10, 2016: K&S submits Final 2015 UWMP incorporating additional comments from City staff and the public to the City.
- May 17, 2016: K&S conducts review conference with City staff on Final 2015 UWMP.
- May 24, 2016: City Council adopts Final 2015 UWMP
- June 17 2016: K&S submits adopted Final 2015 UWMP to DWR and other appropriate entities, and submits all Excel spreadsheets, Word documents, PowerPoint files, AutoCAD exhibits, PDFs, and other digital files to City staff on single flash drive or CD

We estimate that City staff time required for the 2015 UWMP will include time related to participation in project meetings, compiling requested data and records, review of documents, and preparation and publication of notices for public hearings and stakeholder meetings.

Our project team members are available to commence work immediately and will continue diligently through project completion. Upon assignment of a project, Krieger & Stewart is 100% committed to meeting project schedule requirements. In addition, we will adhere to the following:

- If the project were to fall behind schedule, we will provide details to the City's project manager on how we intend to get the project back on schedule.
- Team members will work overtime with no increase in hourly rate billed to the City, as necessary to expedite our services in a manner that does not expose the City to any unnecessary delays. If necessary, we will assign additional personnel to return the project to the original schedule.



SECTION IV - QA/QC PROGRAM

Krieger & Stewart's Quality Assurance/Quality Control (QA/QC) Process consists of two components, Peer Review and Document Control, each discussed separately below:

➤ Peer Review

Each of the primary project components will be the subject of an intensive peer review by our Principal-in-Charge.

Each component will be reviewed periodically as it is developed; scheduled reviews will occur prior to submittal of the preliminary and final versions of the contract documents, and unscheduled reviews will occur as the documents are being prepared and supplemental services are being performed.

➤ Document Control

To ensure reliable and immediate access to documents and information, Krieger & Stewart has devised a comprehensive document control system through which our staff can access any required information regarding a specific project, regardless of the type of media (e.g. paper, digital, mylar, blueprint, photograph) or software program. Our document control system has been in place for nearly 45 years and has proven to be highly dependable.

With regard to this project, we will assign specific tracking numbers to each project element to ensure that we can access records on demand and provide comprehensive and well organized files (paper and digital) to City staff upon request.

TABLE 1
CITY OF BANNING
2015 URBAN WATER MANAGEMENT PLAN
ESTIMATED FEES FOR ENGINEERING SERVICES

TASK / COMPONENT	PRINCIPAL ENGINEER (1)		SENIOR ENGINEER (2)		ASSOCIATE ENGINEER (3)		CADD SERVICES (4)		CLERICAL (5)		TOTAL
	HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	\$
1. INITIAL/DATA NEEDS MEETING	4	828	4	732	4	644			2	182	2,386
2. REVIEW EXISTING DATA	4	828	8	1,464	40	6,440					8,732
3. REVIEW CDWR GUIDEBOOK WORKSHOP CONTENT					6	966					966
4. PRELIMINARY 2015 UWMP AND WORKSHOP	8	1,656	8	1,464	40	6,440	32	4,192	40	3,640	17,392
5. DRAFT 2015 UWMP (50%)	2	414	4	732	24	3,864	8	1,048	24	2,184	8,242
6. 50% DRAFT 2015 UWMP WORKSHOP WITH CITY STAFF	2	414	6	1,098	4	644			2	182	2,338
7. DRAFT 2015 UWMP (95%)	2	414	4	732	16	2,576	4	524	8	728	4,974
8. 95% DRAFT 2015 UWMP WORKSHOP WITH CITY STAFF	2	414	6	1,098	4	644			2	182	2,338
9. PRESENTATION MATERIALS AND CONFERENCE CALL WITH CITY STAFF FOR REVIEW	2		6	1,098	4	644			2	182	1,924
10. PUBLIC AND STAKEHOLDER OUTREACH	2	414	18	3,294	12	1,932			16	1,456	7,096
11. FINAL 2015 UWMP	4	828	8	1,464	16	2,576	4	524	8	728	6,120
12. FINAL 2015 UWMP REVIEW CONFERENCE CALL WITH CITY STAFF	4	828	4	732	4	644					2,204
13. PRESENTATION OF FINAL 2015 UWMP TO CITY COUNCIL	2	414	12	2,196	8	1,288			4	364	4,262
14. SUBMISSION TO CDWR AND OTHERS					8	1,288			8	728	2,016
15. AMENDMENTS TO FINAL 2015 UWMP											
SUBTOTAL:	38	7,452	88	16,104	190	30,590	48	6,288	116	10,556	70,990
OPTIONAL TASK (ESTIMATED)											
15. AMENDMENTS TO FINAL 2015 UWMP	2	414	4	732	16	2,576			24	2,184	5,906
SUBTOTAL:	2	414	4	732	16	2,576	0	0	24	2,184	5,906
REIMBURSABLES (3%):											2,130
ENGINEERING SERVICES TOTAL (ROUNDED):											\$73,000
OPTIONAL TASK REIMBURSABLES (3%):											177
OPTIONAL ENGINEERING SERVICES TOTAL (ROUNDED):											\$6,000

HOURLY RATES PER K&S 2015 FEE SCHEDULE:

- (1) PRINCIPAL ENGINEER I @ \$207 /Hr
- (2) SENIOR ENGINEER II @ \$183 /Hr
- (3) ASSOCIATE ENGINEER II @ \$161 /Hr
- (4) CAD OPERATOR III @ \$131 /Hr
- (5) SECRETARY IV @ \$91 /Hr





**FEE SCHEDULE
2015**

CLASSIFICATION	RATES \$/Hr.
Consulting, Design, Construction, Engineering, Environmental, Commissioning, and Surveying Services (Office)	
Consultant	271.00
Principal III	249.00
Principal II	229.00
Principal I	207.00
Senior III	195.00
Senior II	183.00
Senior I	172.00
Associate III	166.00
Associate II	161.00
Associate I	155.00
Staff III	149.00
Staff II	131.00
Staff I	114.00
Technician III	98.00
Technician II	93.00
Technician I	88.00
Forensic Services	
Principal Expert:	
Testimony, Deposition, and Trial	420.00
Investigation and Preparation	310.00
Associate Expert:	
Testimony, Deposition, and Trial	360.00
Investigation and Preparation	260.00
Computer Aided Design Services	
Operator III	131.00
Operator II	125.00
Operator I	117.00
Surveying Services (Field)	
2 Man Crew with Standard Equipment and Survey Truck	275.00
1 Man Crew with Standard Equipment and Survey Truck	210.00
3rd Man on Crew	125.00
Construction Services (Field)	
Engineer	148.00
Inspector	
Regular Time	114.00
Overtime	
Weekdays (8 hours to 12 hours)	138.00
Weekdays (More than 12 hours)	166.00
Saturday (12 hours or less)	138.00
Saturday (More than 12 hours)	166.00
Sunday and Holiday (Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and the Day After, Christmas Day)	166.00



**FEE SCHEDULE
2015
(continued)**

CLASSIFICATION	RATES \$/Hr.
Support Services	
Secretary IV	91.00
Secretary III	87.00
Secretary II	79.00
Secretary I	71.00
Utility Clerk II	65.00
Utility Clerk I	64.00
Outside Services	
Special Consultants and Purchased Services	Cost + 15%
Reimbursable Expenses	
Vehicle Mileage	0.72 \$/Mile
Travel and Subsistence, including Air Fare, Ground Fare, and Vehicle Parking	Cost
Specialized Rental Equipment	Cost
Copies, Delivery, Postage, Prints, Telephone, and Sundry Charges	Cost

The above rates are subject to change on or about January 1 each year due to salary and cost increases, except for Construction Inspector and Survey Crew rates which are also subject to change if California Department of Industrial Relations issues new prevailing wage determinations during the course of the year. A gasoline surcharge may be included in response to increased prices; no such surcharge will be included on project invoices without prior notification.

TERMS OF PAYMENT:

Unless charge accommodations have been established beforehand, all accounts shall be prepaid. For accounts having charge accommodations, payment in full shall be made within 30 days of date of invoice. Any amount unpaid within said 30 days will be assessed a service charge of 1-1/2% per month (18% annual percentage rate), with a minimum charge of \$1.00. Accounts with a past due balance of 30 days or more are subject, without notice, to credit discontinuance and mechanic's lien or stop notice. If it becomes necessary for Krieger & Stewart to initiate legal proceedings for the collection of any balance due, the action shall be brought and tried in the Judicial Districts wherein Krieger & Stewart offices are located. Client agrees that the court may award reasonable attorney's fees and costs of suit to the prevailing party.

2015-FEES (07/15/2015)



September 29, 2015

000-38.4A

City of Banning
City Clerk's Office
99 East Ramsey Street
P. O. Box 998
Banning, CA 92220

Subject: Engineering Services Fee Proposal for
City of Banning 2015 Urban Water Management Plan

Ladies and Gentlemen:

As requested in the City's Request for Proposals, we are submitting our Fee Estimate for subject project separately from our Engineering Services Proposal.

Our estimated fee for providing the engineering services outlined in **Section III** of our Proposal is \$73,000. Our estimated fee for optional additional services, namely preparation of an amendment to the final 2015 Urban Water Management Plan stemming from potential CDWR comments, is \$6,000. A tabulation of our Fee Estimate by element of service is set forth in **Table 1**, enclosed. A copy of our current fee schedule is also enclosed. We will invoice the City for services provided in accordance with our fee schedule as work is completed. We can assure the City that our services will be provided in the most efficient manner possible and that any unused portion of our budget will not be billed.

Our Scope of Services, Fee, and Schedule are subject to negotiation at the City's discretion. In preparing our Fee Estimate, we have made the following assumptions:

1. At least two (2) of the scheduled conferences with City staff will be conducted as telephone conferences.
2. Materials and information requested from City staff will be provided in a timely manner.
3. Draft documents provided to City staff will be reviewed, and all comments provided to us, in a timely manner.
4. CDWR guidebook workshops and release of CDWR guidance and reference materials will be on schedule.
5. Any comments by CDWR on the final UWMP will be received within six (6) months of submittal to CDWR. Since the nature and extent of comments by CDWR on the final UWMP cannot be accurately predicted, our estimate of \$6,000 to prepare an amendment is to be considered a rough estimate for budgeting purposes. If additional time is required to address CDWR's comments, we will not bill the City for additional services beyond the \$6,000 estimate without prior notice and the City's approval.
6. Notice to proceed will be received on November 30, 2015, or before.
7. The straight-line method of water demand projection will be acceptable to the City.
8. The City will prepare, publish, and distribute all public notices and notices to interested parties.



City of Banning
September 29, 2015
Page 2

9. The City will schedule and conduct the public and stakeholders meetings and public hearing. Krieger & Stewart will prepare all exhibits, provide a presentation regarding the project, and answer questions.

We look forward to providing the required services to the City of Banning. If you have any questions regarding our Fee Estimate or any element of our proposal, please call.

Sincerely,

KRIEGER & STEWART

A handwritten signature in cursive script, appearing to read 'Charles A. Krieger', written over the printed name.

Charles A. Krieger
President

DFS/blt
000-38P4-PRO-FeeLtr

Enclosures: Table 1 – Estimated Fees for Engineering Services
2015 Fee Schedule



861 Village Oaks Drive, Suite 100 • Covina, California 91724
Phone: (626) 967-6202 • FAX: (626) 331-7065 • Web site: www.stetsonengineers.com

Northern California • Southern California • Arizona • Colorado

M0851

September 29, 2015

SEP 30 2015
City Clerk's Office

City of Banning
City Clerk's Office
99 E. Ramsey Street
P.O. Box 998
Banning, CA 92220

Subject: 2015 Urban Water Management Plan Update

Dear Ms. Calderon:

Stetson Engineers Inc. (Stetson) is pleased to provide this Proposal to the City of Banning (City) to prepare the 2015 Urban Water Management Plan (UWMP) Update, in accordance with UWMP guidelines. Stetson is prepared to commit the engineering professionals, support staff and equipment to provide the City with an up-to-date, comprehensive UWMP that meets all of the California Department of Water Resources' (DWR) requirements, and meet the needs of the City. The enclosed Proposal has been prepared to address the requirements of the UWMPs.

Stetson specializes in all phases of water resources engineering, including water system design for complete distribution systems, pipelines, reservoir storage facilities, pumping stations, and water treatment facilities; water well design and development; and hydrogeological studies of groundwater basins. Our services include preparation of UWMPs; water supply assessments; water system valuations; water system master plans; computer modeling of water and wastewater distribution systems and groundwater basins; financial planning and analysis; and water rights valuations.

Stetson has broad experience in all aspects of water resource engineering, along with directly applicable experience based on past preparation of UWMPs. Stetson has prepared UWMPs for over 20 different clients since 1985 when the initial UWMPs were required. Stetson has also assisted with the preparation of the notice of Public Hearing and attendance in the Public Hearing. Stetson prepared the 2010 UWMP for over 15 clients.

In addition to preparation UWMPs, Stetson's experience in the following related areas will be valuable for preparation of the 2015 UWMP Update for the City:

- *Water Supply Assessments* – Stetson has prepared multiple water supply assessments pursuant to Senate Bill 610 (California Water Code Sections 10910-10915) and Senate Bill 221 (Government Code 66473.7), which analyze water demands, sources of supply, and reliability of the water supplies.
- *Water System Master Plans* – Stetson has prepared multiple water system master plans which analyze water quality requirements, water demands, sources of supply, and reliability of the water supplies.

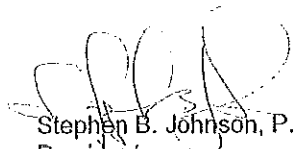
Ms. Marie Calderon
September 29, 2015
Page 2 of 2

Mr. Kevin Smead will serve as the principal contact person. Mr. Smead's contact information is provided below.

Mr. Kevin Smead
Stetson Engineers Inc.
861 S. Village Oaks Drive, Suite 100
Covina CA, 91724
Phone: (626) 967-6202
Email: kevins@stetsonengineers.com

Thank you for considering Stetson's Proposal and this opportunity to assist the City.

Sincerely,



Stephen B. Johnson, P.E.
President
Stetson Engineers Inc.

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LIST OF APPENDICES

APPENDIX A RESUMES

1. QUALIFICATIONS OF FIRM/PROJECT TEAM

QUALIFICATIONS OF FIRM

Stetson Engineers Inc. (Stetson) was established by Thomas M. Stetson in 1957 as Thomas M. Stetson Civil and Consulting Engineers. In 1977, the Company was incorporated as Stetson Engineer's Inc. Stetson has offices located in Covina, Carlsbad, and San Rafael, California; and Centennial, Colorado. Stetson's staff consists over 50 technical professionals with expertise in a broad range of relevant disciplines, including surface water hydrology and hydraulics; fluvial geomorphology; hydrogeology; geology; geophysics; and civil, environmental, and agricultural engineering.

Stetson specializes in all phases of water resources engineering, including water system design for complete distribution systems, pipelines, reservoir storage facilities, pumping stations, and water treatment facilities; water well design and development; and hydrogeological studies of groundwater basins. Our services include preparation of Urban Water Management Plans (UWMPs); preparation of water system valuations; water supply evaluations/ assessments; water system master plans; computer modeling of water and wastewater distribution systems and groundwater basins; financial planning and analysis; and water rights valuations. Through preparation of previous UWMPs and Water System Master Plans, Stetson has familiarity with reporting of quantified distribution system loss utilizing American Water Works Association (AWWA) water system balance methodology; description of distribution system asset management programs; estimation of the effects of codes, standards and ordinances on demands; and electronic online submittal on standardized DWR forms.

CONTACT INFORMATION/OFFICE LOCATION

The following contact information is provided:

- *Corporate Officer
Authorized to Execute
Agreement:* Mr. Stephen B. Johnson
- *Project Manager/
Primary Point of Contact:* Mr. Kevin R. Smead
- *Firm Name:* Stetson Engineers Inc.
- *Office Address:* 861 S. Village Oaks Drive, Suite 100
Covina, California 91724
- *Telephone:* (626) 967-6202
- *Facsimile:* (626) 331-7065
- *Email:* kevin@stetsonengineers.com

The 2015 UWMP Update will be prepared by Stetson's Covina office. Qualifications and experience of the Covina office staff which will be assigned to this project are provided below and in Appendix A of this proposal.

SUBCONSULTANTS

Stetson does not plan to use any sub-consultants for the proposed Project.

PROJECT TEAM

Stetson has assembled a project staff team that will provide the City with senior staff highly experienced in the preparation of UWMPs. Qualifications of project staff who will be working on the 2015 UWMP Update for the City are provided below. Resumes for Stetson's project staff can be

Stephen Johnson, P.E. Ph:(626) 967-6202 Principal-in-Charge, Responsible for Corporate Commitment

Mr. Johnson, Vice President and a principal of Stetson, is the supervising engineer in charge of the Covina office and has over 38 years of experience with Stetson. Mr. Johnson is a corporate officer responsible for overall corporate commitment. Mr. Johnson has been involved in UWMPs, water system analyses, water rights quantification and analysis, supplemental water requirement studies, alternative water supply studies, annual reports, water quality monitoring reports, groundwater management studies, and project feasibility studies. Mr. Johnson has extensive experience with municipal and water district level issues, having been working directly as District Engineer for the Main San Gabriel Basin Watermaster and for several watersheds in southern California on such matters as water supply, water quality, management, and financing.

Kevin Smead, P.E. Ph:(626) 967-6202

Project Manager

Mr. Smead has over 33 years of experience with Stetson including water resource engineering and UWMPs with an emphasis on water system valuation, water rights appraisal, groundwater basin management, water quality regulations and regulatory permitting. Mr. Smead has prepared and/or supervised the preparation of numerous UWMPs for over 20 clients since 1985. Mr. Smead will supervise the preparation of the 2015 UWMP Update

Stan Chen, P.E. Ph:(626) 967-6202

Project Engineer

Mr. Chen has over 15 years of experience with Stetson including water resource engineering including water supply assessments, water system master plans, water supply plans, hydrologic studies, water rights and supply evaluation, Drinking Water Source Assessment and Protection (DWSAP) Program Plans, and water quality studies. Mr. Chen was involved in the preparation of numerous 2010 UWMP Updates.

Jenny Arevalo, E.I.T. Ph:(626) 967-6202

Project Engineer

Ms. Arevalo has over 13 years of experience with Stetson and has been involved in numerous UWMPs, water system master plans, and water supply assessments and has analyzed water system operations. Ms. Arevalo was involved in the preparation of numerous 2010 UWMP Updates.

2. REFERENCES

Provided below is a list of references of public agency clients where Stetson has completed their 2010 UWMP Updates.

1. **City of Manhattan Beach**
Mr. Raul Saenz
1400 Highland Avenue
Manhattan Beach, CA 90266
Phone: (310) 802-5315
Project Description: Preparation of 2010 UWMP Update
Cost: \$25,900
Key Personnel: Steve Johnson, Kevin Smead, Stan Chen
Role of Key Project Team Members: Mr. Johnson was corporate officer for overall supervision of the projects. Mr. Smead and Mr. Chen prepared the 2010 UWMP Update.
2. **City of Whittier**
Mr. David Pelser
13230 Penn Street
Whittier, CA 90602
Phone: (562) 567-9549
Project Description: Preparation of 2010 UWMP Update
Cost: \$25,800
Key Personnel: Steve Johnson, Kevin Smead, Jenny Arevalo
Role of Key Project Team Members: Mr. Johnson was corporate officer for overall supervision of the projects. Mr. Smead and Ms. Arevalo prepared the 2010 UWMP Update.
3. **City of Arcadia**
Mr. Tom Tait
11800 Goldring Road
Arcadia, CA 91006
Phone: (626) 305-1386
Project Description: Preparation of 2010 UWMP Update
Cost: \$21,500
Key Personnel: Steve Johnson, Kevin Smead, Stan Chen
Role of Key Project Team Members: Mr. Johnson was corporate officer for overall supervision of the projects. Mr. Smead and Mr. Chen prepared the 2010 UWMP Update.

3. STRATEGY AND IMPLEMENTATION PLAN

PROJECT UNDERSTANDING

The Urban Water Management Planning Act was established by Assembly Bill 797 in 1983 and has been amended on numerous occasions. In particular, Assembly Bill 11X amended the UWMP Act in 1991, by including a requirement for a Water Shortage Contingency Plan. Section 10631(b) has been expanded to require additional information on groundwater basin management and reliability of water supply. Sections 10631(h) and 10631(i) were added and require additional information on water supply projects, including the use of desalination. Emphasis on the potential use of recycled water is included in Section 10633. Assembly Bill 1420, which amended Section 10631.5 and added Section 10631.7 in 2007, requires the terms of an eligibility for any water management grant or loan from the California Department of Water Resources (DWR) to be conditioned on the implementation of the water demand management measures described in the UWMP.

In accordance with the UWMP Act, Sections 10617 and 10621, each urban water supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, shall prepare, update and adopt its UWMP at least once every five years ending in five and zero. Pursuant to Assembly Bill No. 2067, as well as California Water Code Section 10621, the 2015 UWMP Update is due to DWR no later than July 1, 2016.

An UWMP must include the following basic items:

- A description of the service area;
- A description of the existing and planned sources of supply and the reliability of those sources during an average year, a single dry year and multiple dry years;
- A description of existing groundwater management activities;
- A description of opportunities for exchanges or transfers of water;
- A description of historic and projected water use;
- A description of Demand Management Measures;
- A description of all water supply projects and water supply programs that may be undertaken to meet the total projected water use;
- A description of opportunities for development of desalinated water, including ocean water, brackish water, and groundwater, as a long-term supply;
- A discussion of an Urban Water Shortage Contingency Plan and analysis;
- A discussion of the opportunity to use recycled water; and
- A discussion of the quality of existing sources of water

Water suppliers are required to coordinate the preparation of the 2015 UWMP Update with other water suppliers and appropriate agencies in the area. All water suppliers are required to notify cities and counties in their service area of the opportunity to submit comments regarding the UWMP during the update process. The urban water supplier is required to provide notification to cities and counties within which the supplier provides water supplies at least 60 days prior to a Public Hearing. Water suppliers are required to file their UWMPs, or amendments thereof, with the DWR, the California State Library, and any city or county within which the supplier provides water, no later than 30 days after adoption. UWMPs are reviewed by DWR staff to determine compliance with the requirements of the Urban Water Management Planning Act. Results of the DWR review are provided to urban water suppliers through a review letter. A copy of the 2015 UWMP Update must be made available for public review during normal business hours within 30 days of submitting the UWMP to DWR.

In preparing the 2015 UWMP Update for the City, Stetson will ensure all changes to the UWMP Act, since the last update to the UWMP, are incorporated. Stetson will follow DWR's 2015 UWMP Guidebook to ensure all requirements of the Act are addressed. Stetson will incorporate the additional required information during preparation of the 2015 UWMP Update, including the following:

1. A Geographic Information System (GIS) map of the City's service area to assess compliance with the Water Conservation Act of 2009 (Senate Bill SBX7_7). A map with the service area, jurisdictional, and municipal boundaries will be included with the 2015 UWMP Update. An electronic, geospatial shape file (such as in the ArcGIS or KML format) version of the map will be included with the following metadata:
 - Map projection
 - Contact information of person that created the map
 - Information on boundary changes
 - Revision dates
 - Constraints
 - Attribute table explanation
 - Base (e.g. quadrangle, digitizing tablet, etc.)
2. Incorporate DWR's standardized tables.
3. Distribution system water losses will be quantified for the most recent 12-month period available.
4. Water suppliers are to calculate their actual 2015 water use (2014-15 fiscal or 2015 calendar year) to determine whether or not they have met their "2015 target water use" and to assess their progress toward meeting their "2020 target water use."
5. A water supplier may select a different Target Method (i.e. Senate Bill SBX7_7 calculation) in the 2015 UWMP than it selected in its 2010 UWMP. (Once the 2015 plan is submitted, the Target Method may not be changed in any amendments to the 2015 plan or in the 2020 plan.) If a water supplier did not use actual 2010 population data to calculate its Target Method, then the water supplier is required by DWR to recalculate its Target Method using actual 2010 population.
6. A narrative description of the water Demand Management Measures (DMMs) that will be implemented to achieve water use targets is required. The narrative will also need to address the nature and extent of each DMM implemented over the past five years, from 2010 through 2015.
7. Both the Governor's Executive Order of April 2015 and the Water Conservation Act of 2009 are in force. The requirements for the Water Conservation Act (requiring 20 percent reduction by 2020) differ from the requirements in Governor Executive Order (requiring a reduction of 25 percent in urban water use). The Governor's Executive Order is a response to an immediate drought crisis. The Water Conservation Act addresses long-term resource planning.
8. DWR staff has indicated new requirements for groundwater management under the Sustainable Groundwater Management Act (SGMA) will not apply to the 2015 UWMPs. However, DWR's current efforts to identify overdrafted basins should be included.

SCOPE OF WORK

Mr. Kevin Smead will be assigned as the Project Manager and will act as the primary contact. Stetson will provide the following as part of our Scope of Work (consistent with the Project Schedule provided after the Scope of Work):

Task 1 – Preliminary Work

Stetson will attend a kick-off meeting with City staff to define the project objectives, determine the schedule, and establish the approach and methodology that will be used to achieve the project objectives. Stetson will review background information and relevant data in support of the project. Stetson will provide the City staff with a memorandum listing the requested data necessary to prepare the 2015

UWMP Update. In addition, Stetson will provide a schedule to develop the 2015 UWMP Update for the City and submit the document to DWR prior to the July 1, 2016 due date.

Task 2 – Demand Analysis

Stetson will update the demand characteristics. The City is a retail water agency which provides potable water to its customers and water consumption estimates will be based on information provided by the City. The future water demands will be provided in five-year increments for a 25-year period through 2040. The water demand projections will be estimated using a model acceptable to the City. The baseline demand projections shall include impacts of existing future CAL Green Codes and appliance/fixtures standards.

Task 3 – System Description

Stetson will prepare a detailed service area description as well as a synopsis of service area population. This task will include demographic data, which will be used as the basis for evaluating water use demands and trends. The service area will include a GIS shape file for the City, along with historical and projected population data developed by the City.

Task 4 – System Supplies

Stetson will review and discuss the City's water sources, water rights, groundwater, transfer opportunities, recycled water opportunities, future water projects, and drought planning. Stetson will identify the current water supply sources provided by the City staff; review potential additional sources of water; assess potential for increased water conservation; identify water supply sources from purchases or participation in conjunctive use projects based on information provided by the City; and identify current and projected use of recycled water within the services area based on data provided by the City.

Task 5 System Demands by Customer Class

Stetson will describe historical and existing water use characteristics and water demands for total annual production and water use by customer class (residential, commercial, industrial, institution, parks, others). Stetson will quantify unit water demands (gallons/customer class/day) for each major use class (residential, commercial, industrial, and public) along with indoor and outdoor water use. Stetson will collect and review water billing data to determine appropriate water demand factors for the demand analysis.

Stetson will discuss existing potable and non-potable demands; future potable and non-potable (and recycled water) demands for 10-year and 20-year buildout; distribution system losses; low income household demands; baseline and targets of 2010 UWMP GPCD; and water use reduction plan.

Task 6 – Water Supply Reliability/Water Shortage Contingency Planning

Stetson will work with the City staff to review the City's existing "Water Shortage Contingency Plan" to determine compliance with current provisions of the UWMP Act. Stetson will provide revisions to the existing Water Shortage Contingency Plan to be consistent with the existing drought and the recent emergency proclamations by the Governor.

Task 7 – Demand Management Measures (DMMs)

Stetson will work with the City staff to identify all DMMs implemented by the City. Stetson will work with City staff to summarize the DMMs goals and programs that have been implemented. In addition, Stetson will provide a description of DMM programs anticipated to be implemented by the City over the ensuing five years.

Task 8 – Public and Stakeholder Outreach (Includes 2 Stakeholder Meetings, 1 Public Hearing)

Coordination with Relevant Agencies – Stetson is prepared to assist the City in coordinating with relevant agencies as required by the UWMP Act for notice of preparation of the UWMP, and notice of the public hearing for adoption of the UWMP.

Involvement of Public and Outreach Efforts – Stetson is prepared to coordinate with the City staff regarding involvement of the public and outreach efforts.

Final 2015 UWMP Update Incorporating Public Comments and Adoption Resolution – Stetson will prepare the adopted final 2015 UWMP Update by incorporating comments from the public hearing and adding the adoption resolution. Stetson will obtain City approval of any revisions, prior to submittal of the final 2015 UWMP Update to DWR.

Submittal of Adopted 2015 UWMP Update to DWR, Relevant Cities and Counties, and California State Library – Stetson will assist the City in submission of the adopted 2015 UWMP Update to DWR, relevant cities and counties, and the California State Library. As applicable, Stetson will complete the 2015 UWMP Update checklist and submit the UWMP electronically.

Task 9 – Deliverables (Draft/Final UWMP)

Stetson will prepare a draft 2015 UWMP Update incorporating the information from Tasks 1 through 7 above. As discussed previously, Stetson will incorporate DWR's standardized tables during preparation of the 2015 UWMP Update. The tables will be included in the 2015 UWMP Update. In addition, the tables will be prepared in a format suitable for submittal to DWR.

Draft UWMP – Stetson will prepare a draft 2015 UWMP Update and submit six (6) hard copies and one (1) electronic copy in PDF format.

Final UWMP – Stetson will prepare a final 2015 UWMP Update, incorporating comments from the public hearing and including the resolution adopting the final 2015 UWMP Update. Stetson will submit six (6) hard copies and one (1) electronic copy in PDF and Microsoft Word. Documentation supporting key calculations will also be submitted in an electronic format.

Task 10 – Additional Services

Stetson has not proposed any Additional Services otherwise included in the City's RFP.

PROJECT MEETINGS

In addition to the kickoff meeting (Task 1), Stetson will attend eight (8) progress meetings and (1) one final meeting held at the City's office.

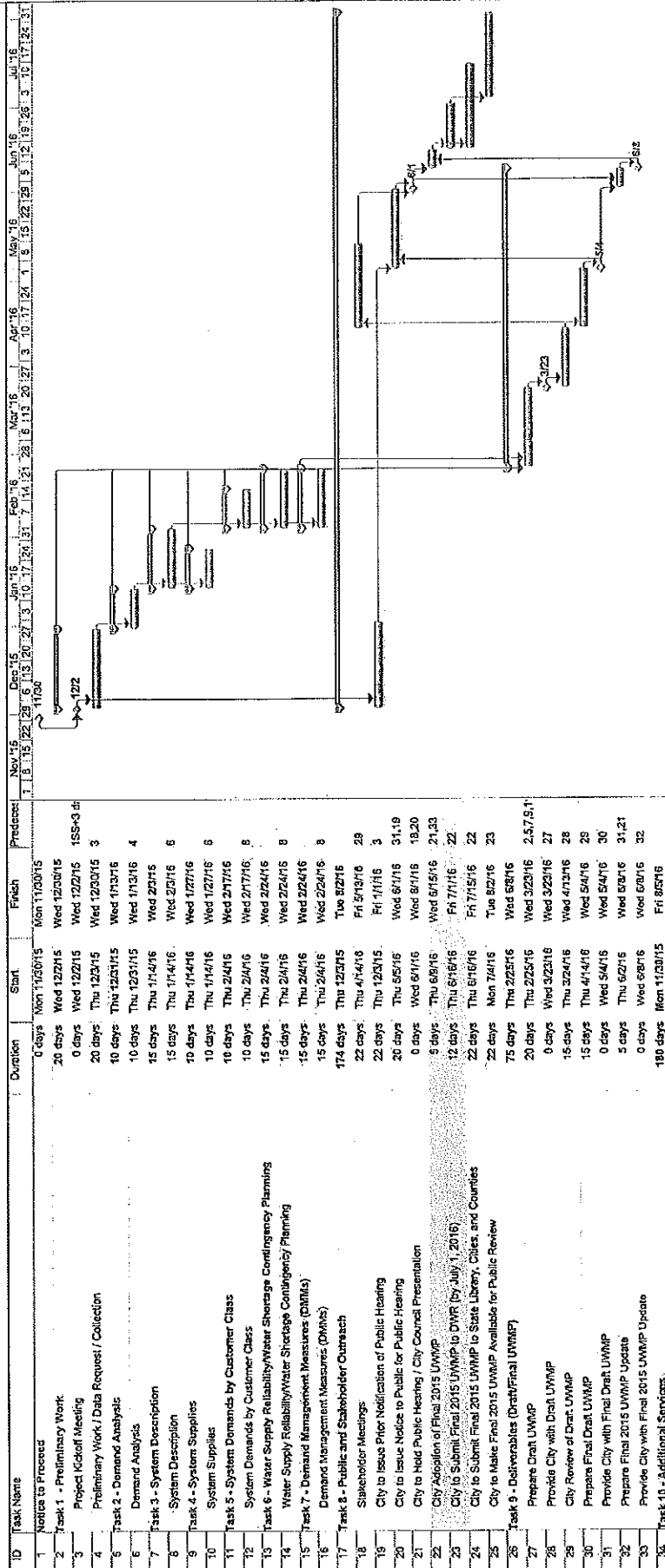
PROJECT SCHEDULE

An UWMP project schedule is provided below. Stetson assumes a start date of November 30, 2015. A Draft 2015 UWMP Update will be provided to the City in March 2016. (These dates below are provided for planning purposes and will be finalized at the kickoff meeting with City staff.)

- | | |
|---|-------------------|
| • Notice to Proceed: | November 30, 2015 |
| • Provide City with Draft 2015 UWMP: | March 2016 |
| • Provide City with Final Draft 2015 UWMP: | May 2016 |
| • Attend City Public Hearing, if needed: | Early June 2016 |
| • Provide City with Final 2015 UWMP Update: | June 2016 |



City of Banning 2015 Urban Water Management Plan Update Project Schedule



4. QUALITY ASSURANCE PROGRAM (QA/QA)

Quality control is of paramount importance on all projects, particularly when they have potentially far-reaching consequences. Quality control involves achievement of quality standards within the parameters of project schedule and budget, without placing undue demands on management and technical personnel. Quality assurance and control are familiar terms in the construction trades, where they refer to standard engineering procedures for accepting or rejecting a work product or activities according to established criteria, specifications, or documentation requirements. In a project, the terms take on a different meaning, but the concepts are consistent. In gathering, reviewing, analyzing, and organizing data, Stetson assures quality by:

- Assigning to project work only those professionals who meet standards for training and experience;
- Having qualified senior engineers review technical performance;
- Having trained, experienced personnel review draft reports;
- Using approved, proven methods for data gathering;
- Organizing data into computerized data bases using state-of-the-art software and trained technicians;
- Fully documenting data base development, models, and all recommendations or conclusions;
- Identifying the level of detail required early in process; and
- Carefully and thoroughly consulting with all relevant parties

Management procedures, proposed communications and meetings, and report preparation procedures all help assure that these elements of quality control are exercised at all levels within project teams that fully-informed oversight may be exercised by the client.

Quality control is not just the responsibility of project principals or project managers, although accountability rests there. Stetson managers are all experienced at supervising and directing complex multi-disciplinary engineering and resource management projects, including projects involving extensive formal Quality Control/Quality Assurance programs.

PROOF OF INSURANCE

Stetson maintains the following insurance coverage:

General Liability	\$1,000,000 per occurrence/\$2,000,000 aggregate
Professional Errors and Omissions	\$2,000,000 per claim /\$2,000,000 aggregate
Automobile Liability	\$1,000,000 per accident
Worker's Compensation	\$1,000,000 per accident

Umbrella coverage \$3,000,000 per occurrence/\$3,000,000 aggregate

5. FEE PROPOSAL

A fee schedule for each work task is provided in a separate sealed envelope. The fee schedule includes hourly rate for each personnel category, and any other additional charges to complete the services of this project.

Other costs associated with expenses such as travel to the City's office for meetings (mileage) and document reproduction (draft and final) are included.

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APPENDIX A

RESUMES

RESUMES



Name & Title: Steve Johnson, P.E., President/CEO and Managing Principal	Project Assignment: Principal Engineer
Years of Experience with Firm 38	Years of Experience With Other Firms 0
Education: Degree(s) / Year / Specialization: B.S. Civil Engineering / 1977 / California Polytechnic University, Pomona	Registrations / Certifications: Civil Engineer No. 32396, California 1981
Experience Record	
Mr. Johnson is President/CEO and Managing Principal of the Covina office of Stetson Engineers. Mr. Johnson is responsible for all engineering operations performed by the firm's southern California office, in Covina, California. Mr. Johnson's extremely broad experience covers the southern California work for well over a quarter century. As a Managing Principal, Mr. Johnson is responsible for all corporate management functions and professional engineering support services. Mr. Johnson has represented Stetson for over 30 years, continuous. Mr. Johnson is a designated expert for purposes of water system and water rights evaluation and appraisal. This includes qualification in U.S. Federal Court as an expert under the Daubert rules of qualification. He has provided expert witness testimony on water system/water rights condemnation actions, groundwater contamination cases, and flood damage evaluations and assessments. Mr. Johnson's expertise has supported numerous water systems and water rights transactions and settlements. He has also provided expert witness testimony of the impacts and decision-making associated with water supply contamination, before the California Public Utilities Commission, Administration Law Judge. Mr. Johnson is the designated "Project Engineer" for implementing cleanup of the largest groundwater contamination site in the nation, under the U.S. Environmental Protection Agency's Superfund Program. Under this assignment, Mr. Johnson coordinates with the U.S. EPA, six different water purveyors, the Main San Gabriel Basin Watermaster, the San Gabriel Basin Water Quality Authority, and numerous Responsible Parties and their engineering/legal representatives. This assignment has a current value of \$250 to \$300 million and will produce over 35,000 acre-feet of treated, potable groundwater annually. Mr. Johnson's responsibilities include all phases of project planning, financing, coordination, regulatory compliance, design, contract solicitation, construction management, operations, and performance monitoring for contamination plume control and cleanup. As a predecessor to this assignment, Mr. Johnson supervised the planning, design, construction, operations, and regulatory approval of the first groundwater treatment facility in the United States to successfully treat for Perchlorate and NDMA for potable consumption. This facility was also the first groundwater treatment facility to be permitted for drinking water supply under the California Department of Health Services Policy 97-005 for impaired water supplies. Mr. Johnson represents several prominent water agencies as "Engineer". These agencies include the Main San Gabriel Basin Watermaster, the Upper San Gabriel Valley Municipal Water District, the San Gabriel Valley Municipal Water District, and the San Gabriel Basin Water Quality Authority. Typical assignments include safe yield studies, groundwater contamination characterization and remediation, design, construction management, rate assessment, water supply studies, and reports to the board. Since the early 1980s, Mr. Johnson has been heavily involved with engineering solutions to contamination of drinking water supplies. This work involves a wide range of experience and expertise, including site and regional characterization of soil and groundwater contamination, hydrogeologic studies, groundwater basin modeling, development of cleanup and water supply plans, remediation studies, development and full implementation of treatment projects, and coordination with all regulatory agencies. The contaminants of concern include volatile organic compounds (VOCs), Perchlorate, NDMA, 1,4-dioxane, Chromium and others. This work has been performed in full cooperation with the U.S. Environmental Protection Agency, the State Department of Toxic Substance Control, the Department of Health Services, the State Water Resources Control Board, and the Regional Water Quality Control Board.	

RESUMES

Steve Johnson, Principal Engineer
(Continued)

The following projects are representative of Mr. Johnson's experience:

City of Los Angeles, Department of Water and Power, Supplemental Water Study.

City of Los Angeles, Department of Water and Power, Hoover Dam Power Contracts.

Upper San Gabriel Valley Municipal Water District

- Supervision of District Engineering Duties
- Area Wide Water Quality Monitoring Plan
- AB 1803 Water Quality Monitoring Plan
- AB 797 Water Conservation Plan
- Feasibility Studies - Use of Reclaimed Water
- Supervision of EPA Superfund Sub-Contract
- Drought Studies
- Puente Hills Landfill Investigation
- District Mapping
- Reclaimed Water Study
- Direct Use Project

San Gabriel River Watermaster, Named one of the three Watermasters in 2011

City of Bakersfield

- Design of Turnout Structure - Kern River
- Design of Turnout Structure - Canal
- Water System Master Plan
- Review of New Development Plans
- Design of Box Culvert
- Acquisition of New Facilities
- Water System Operations Study

Santa Ynez River Water Conservation District

- Design of Reservoir Renovation
- Design of Lake Cachuma Intake Facility
- Design of Well Fields (6.0 cfs, 4.0 cfs and 1.73 cfs)
- Design of Booster Station
- Administration of State Loan and Grant
- Supervision of Cathodic Protection
- Design of Well No. 15 Pumping Equipment
- Lake Cachuma Intake Maintenance
- Zone III Reservoir Design



RESUMES

Steve Johnson, Principal Engineer
(Continued)

- Cachuma Pipeline Rehabilitation
- SWP Facilities Design

East Pasadena Water Company Design of Water Main Extensions for Fire Service.

Kaiser Steel Valuation of Water Related Holdings at Fontana Plant.

City of Solvang

- Design of Wells No. 7 and 8 Water Supply

San Gabriel Valley Municipal Water District

- Feasibility Study Hydroelectric Generation Stations
- Continuing Developer Interaction Responsibilities
- Supervision of Periodic Pipeline As-Built Updates
- Feasibility Study and Acquisition for Turnout Structure
- Transmission Pipeline Rehabilitation Project
- State Water Project Entitlement Report
- Urban Water Management Plans
- Pipeline Extension Project

City of Industry Master Plan of Development

Main San Gabriel Basin Watermaster

- Supervision of Engineering Duties
- Basin Water Quality Studies
- Basin Modeling
- Enforcement of Pumping Control
- Operable Unit Cleanup Plans
- BPOU Cleanup Project
- Full Compliance Permitting

Puente Basin Watermaster Supervision of Engineering Duties

Buellton Community Services District

- Water System Design
- Sewer System Design

City of Torrance Feasibility Study on Hydroelectric Generation

Mr. Riley Metz Site Drainage Study and Improvement

Mr. Redmond Flood Damage Study

Boy Scouts of America Flood Damage Study

Rapid Transit District Waste Discharge Study

Mr. Lapin Flood Damage Study



RESUMES

Steve Johnson, Principal Engineer
(Continued)

U.S. Department of Navy, Camp Pendleton

- Water System Study
- Water System Design

City of Claremont Representative on Proposed Quarry Development

Cahoon Water Company Valuation Study

HLM Water System Valuation Study

Citizens Utilities Company Valuation of Jackson Water Works

County of San Bernardino Safe Yield Study

Walsh v. State of California Flood Damage Study

Three Valleys Municipal Water District Subagency Report

Morongo Water System Valuation Study

La Quinta Water System Valuation Study

City of Ontario Flood Damage Study

Serrano Park Homeowners Association Flood Plain Improvements

California Department of Fish and Game Valuation of Water Rights at Indian Joe Spring

Sunnymead Ranch Lake Reconstruction

City of Livermore and California Water Service Trade of Service Areas - Arbitration

Sparkletts Water Water Supply Study

Cancun Racquet Club Subsidence Evaluation

East Highlands Ranch Water Rights and Consultation Work

Covina Irrigating Company Valuation

Hartman Farms (Ohio) Coordination of basin recharge with rock and sand operations

Turner Ranches Valuation of Sanitary System

City of Barstow

- Water Rights
- Mohave River Water Quality Evaluations
- Contaminant Investigations

City of Glendora Conjunctive Use Study

Lewis Homes Management Corp Water Resources and Supply Studies

City of Oceanside Water Resources Study

City of Upland Water Rights Evaluation

RESUMES

Steve Johnson, Principal Engineer
(Continued)

San Gabriel Basin Water Quality Authority

- Consulting Services
- Arrow Well Project
- Big Dalton Project
- Monrovia Project

City of Bullhead City, Wastewater Treatment Plant Evaluation

Azusa Valley Water Company Valuation

American Water Works, Well Design

City of Covina, Valuation of Covina Irrigating Company

Suburban Water Systems, Valuation of Facilities

City of Whittier Urban Water Plans

Lewis Homes, Monrovia Nursery Water Resources

Beverly Acres Mutual Water User's Association Valuation

Southern California Water Company, Staff Projects

City of Oceanside - Water Resources Study

Prado Dam Flood Damage - Perrizo

Chino Basin Watermaster - Engineering

Santa Margarita Water District - Appraisal

San Gabriel Valley Water Co. v. Sanitation Districts

Tri-Cities/Camp Pendleton - Economic Evaluation of Conjunctive Use Water Supply Project

Three Valleys Water District - General Engineering

San Gabriel River Water Committee - General Engineering

City of Beverly Hills - Water Distribution System Analysis

Valley County Water District - Urban Water Management Plan

Valley County Water District - General Engineering

Montebello Land and Water Company

City of Oceanside - Water Rights and System Modeling

City of Oxnard - Water Quality

Raymond Basin - Perchlorate Study

Star Kist Foods - Water Rights Evaluation

Orange County Water District - Prado Basin Constructed Wetlands

East Highlands Ranch - Water Supply

Elsinore Water District Well Interference



RESUMES

Steve Johnson, Principal Engineer
(Continued)

LPVCWD Perchlorate/NDMA Facility

Tejon Ranch Water/Sanitation

City of San Diego Studies

DHS Permitting - Policy 97-005

SEMOU Cleanup Plans

SCWC SEMOU Water

San Jacinto-Hemet Groundwater Management Plan

Baldwin Park Operable Unit - Groundwater Cleanup Project

San Gabriel Valley Water Company (SGVWC) -- General Rate Case Filing Before the Public Utilities Commission for SGVWC's Fontana Water Company Division

People vs. Rosemead

CalTrans vs. San Antonio Lakes Partners, et al.

State of New Mexico, et al. vs. General Electric company

American States Water Company et al. vs. State of California et al., & Aerojet-General Corporation, et al.

Suburban Water Systems Rate Case before the Public Utilities Commission

Paulus Engineering, Inc. vs. Ridge Development, LLC

Summit Water Holdings, LLC/Harper Lake Basin

Villages of Avalon Community Association vs. Perris Public Utility Authority

People of the State of California and the City of San Diego vs. Kinder Morgan Energy Partners

Tahoe City Public Utility Districts vs. Tahoe Park Water Company; Lake Forest Water Company



RESUMES

Name & Title: Kevin Smead, P.E., Supervising Engineer	Project Assignment: Project Engineer
Years of Experience with Firm 32	Years of Experience with Other Firms 0
Education: Degree(s) / Year / Specialization: B.S. Civil Engineering / 1981 / California State Polytechnic University, Pomona	Registrations / Certifications: Civil Engineer No. 47859, California, 1991
Experience Record Mr. Smead has been employed by Stetson Engineers Inc. since 1980. He has participated in many hydrologic investigations of ground-water basins in the southern California area. He specializes in ground-water supply investigations, ground-water basin management and ground-water quality protection. <u>Upper San Gabriel Valley Municipal Water District</u> • Evaluate impacts of Metropolitan Water District new rate structure. • Prepare study identifying existing and potential water recharge facilities. • Develop projections of future supplemental water requirements. <u>Tri-Cities Municipal Water District</u> • Evaluate impact of Metropolitan Water District new rate structure regarding proposed lease of basin storage. <u>Main San Gabriel Basin Watermaster</u> • Develop and administrate the water quality monitoring program for water companies following monitoring requirements in Title 22. • Participate in the development and implementation of the Five-Year Water Quality and Supply Plan. • Develop staff reports reviewing potential impacts on ground-water contamination as a result of drilling new wells. • Prepare the annual Operating Safe Yield report. • Prepare the Annual Report, which reviews each year's activities, water rights history and water use. • Supervise the meter testing program. • Prepare report on feasibility by use of Reclaimed Water for ground-water recharge. • Review effects of proposed rate structure of Metropolitan Water District of Southern California. • Study impacts to groundwater quality resulting from construction of new wells. <u>San Gabriel River Watermaster</u> • Prepare an Annual Report identifying usable surface flow, unusable outflow and subsurface flow across Whittier Narrows. <u>San Gabriel Valley Municipal Water District</u> • Prepare water supply study identifying long-term supplemental water requirements. <u>Water System Valuations</u> • Beverly Acres Mutual Water Users Association • City of Perris • City of Industry • City of Beverly Hills • County Water Company • Santa Margarita Water District	



RESUMES

Kevin Smead, Project Engineer
(Continued)

Develop Urban Water Management Plans

- City of Whittier
- Upper San Gabriel Valley Municipal Water District
- San Gabriel Valley Municipal Water District
- Valley County Water District
- City of Azusa
- City of El Monte
- City of Arcadia
- City of Monterey Park
- Suburban Water Systems
- California Domestic Water Company
- City of South Pasadena
- Sunny Slope Water Company



RESUMES

Name & Title: Stan Chen, P.E., Civil Engineer	Project Assignment: Project Engineer
Years of Experience with Firm 15	Years of Experience with Other Firms 2
Education: Degree(s) / Year / Specialization: B.S. Environmental Engineering / 1999 / University of California, Berkeley M.S. Civil Engineering / 2000 / University of California, Los Angeles	Registrations / Certifications: E.I.T. No. 107911, State of California, July 9, 1999 P.E. No. 66883, State of California, June 25, 2004
Experience Record Mr. Chen has experience in water resource engineering including water system master plans, water supply plans, hydrologic studies, water rights and supply evaluation, and water quality studies. <u>San Gabriel Valley Water Company -- Fontana Division</u> - Prepared a Comprehensive Master Plan for San Gabriel Valley Water Company's Fontana Division - Prepared Water Supply Assessment reports for San Gabriel Valley Water Company's Fontana Division regarding different specific plans <u>San Gabriel Basin Water Quality Authority</u> - Evaluated differences between granular activated carbon specifications and costs between vendors <u>Los Angeles County Local Agency Formation Commission</u> - Prepared a regional comprehensive water study of Santa Clarita Valley water purveyors <u>Newhall County Water District</u> - Prepared a Water Supply Assessment of the Santa Clarita Valley <u>Drinking Water Source Assessment and Protection Program</u> - Conducted groundwater assessments for approximately 200 sources in the Main San Gabriel Basin and Raymond Basin <u>San Luis Rey Indian Water Authority</u> - Prepared current and projected water supply and demand analysis - Investigated water rights to the San Luis Rey River <u>San Luis Obispo, California</u> - Conducted water rights evaluation and costs - Evaluated nitrate treatment technologies for contaminated groundwater <u>Copa de Oro, California</u> - Performed water conservation study for a 1,200 unit development <u>Southern California Water Company</u> - Performed region wide evaluation of system performance based upon water quality, system capacity, and reliability issues - Conducted groundwater rights/supply cost evaluation due to contamination <u>City of Arcadia, California</u> - Prepared a Water Supply Assessment for the City of Arcadia <u>City of Alhambra, California</u> - Prepared a Water Supply Assessment for the City of Alhambra	



RESUMES

Stan Chen, Project Engineer
(Continued)

San Gabriel County Water District, California

- Prepared a Water Supply Assessment for the San Gabriel County Water District

Upland, California

- Performed Best Management Practice cost evaluation regarding stormwater runoff from a freeway into a residential development

Newport Beach, California,

- Evaluated hydraulic impacts of stormwater on property.



RESUMES

Name & Title: Jenny Arevalo, E.I.T., Associate Engineer II	Project Assignment: Project Engineer
Years of Experience with Firm 13	Years of Experience with Other Firms
Education: Degree(s) / Year / Specialization: B.S. Environmental Engineering / 2002 / University of California, Irvine	Registrations / Certifications: E.I.T. No. 116828, State of California, June 2003

Experience Record

Ms. Arevalo has experience in water resource engineering including water system master plans, water supply plans, hydrologic studies, water rights and supply evaluation, and water quality studies.

Develop Urban Water Management Plans:

- Upper San Gabriel Valley Municipal Water District
- City of Monterey Park
- Suburban Water Systems
- City of San Jacinto
- La Canada Irrigation Districts

San Gabriel River Watermaster

- Prepare an Annual Report identifying usable surface flow, unusable outflow and subsurface flow across Whittier Narrows

Main San Gabriel Basin Watermaster

- Participate in the development and implementation of the Five-Year Water Quality and Supply Plan.
- Prepare the Annual Report, which reviews each year's activities, water rights history and water use.
- Develop staff reports reviewing potential impacts on groundwater contamination as a result of drilling new wells.
- Prepare the annual Operating Safe Yield report.

Develop Water System Master Plan and Sewer Master Plan

- City of San Jacinto



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Phone: (626) 967-6202 • FAX: (626) 331-7065 • Web site: www.stetsonengineers.com

Northern California • Southern California • Arizona • Colorado

M0851

September 29, 2015

City of Banning
City Clerk's Office
99 E. Ramsey Street
P.O. Box 998
Banning, CA 92220

Subject: 2015 Urban Water Management Plan Update

Dear Ms. Calderon:

Stetson Engineers Inc. (Stetson) is pleased to provide the enclosed Fee Proposal to the City of Banning (City), in conjunction with our submittal to prepare the 2015 Urban Water Management Plan (UWMP) Update, in accordance with UWMP guidelines. Also enclosed is Stetson's standard schedule of hourly rates and charges.

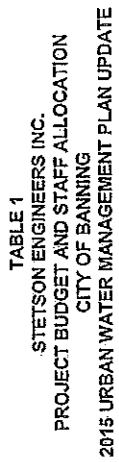
The enclosed proposed Fee Proposal is a "Not-to-Exceed" amount of \$68,000. Stetson has reviewed the requirements in the City's Request for Proposals and prepared the enclosed proposed fee based on Stetson's proposed scope of work.

Thank you for considering Stetson's Fee Proposal. We look forward to demonstrating Stetson's capabilities to the City of Banning.

Sincerely,

Stephen B. Johnson, P.E.
President
Stetson Engineers Inc.

J:\Jobs\08-Marketing\M0810_2015 UWMP Update\M0851 C of Banning\Cost Cover Letter.doc



	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	Task 9	Task 10
	Preliminary Work	Demand Analysis	System Description	System Supplies	System Demands by Customer Class	Water Supply Reliability/Water Shortage Contingency Planning	Demand Management Measures	Public and Stakeholder Outreach Program & Meetings	Demographic	Additional Services
Stephen B. Johnson	Principal	\$ 1,170	\$ 780	\$ 1,760	\$ 1,780	\$ 390	\$ 390	\$ 1,700	\$ 1,500	\$ -
Kevin Sheard	Supervising Engineer	\$ 1,950	\$ 1,104	\$ 1,360	\$ 1,104	\$ 552	\$ 552	\$ 2,760	\$ 2,208	\$ -
Shari Egan	Project Engineer	\$ 2,760	\$ 1,560	\$ 1,760	\$ 1,560	\$ 880	\$ 880	\$ 6,950	\$ 3,300	\$ -
Jenny Zischew	Nurse Practitioner	\$ 1,560	\$ 4,400	\$ 1,760	\$ 245	\$ 2,640	\$ 3,300	\$ 6,950	\$ 3,300	\$ -
GIS Specialist I	\$ 320	\$ -	\$ 744	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 213	\$ 195
Administrative I	\$ 300	\$ -	\$ -	\$ -	\$ -	\$ 260	\$ -	\$ 2,000	\$ 160	\$ -
Sub Total	\$ 5,076	\$ 5,876	\$ 5,076	\$ 5,076	\$ 5,076	\$ 1,332	\$ 1,332	\$ 12,200	\$ 7,968	\$ 3,300
Expense	\$ 100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 780	\$ 800	\$ -
Total	\$ 5,176	\$ 5,876	\$ 5,076	\$ 5,076	\$ 5,076	\$ 1,332	\$ 1,332	\$ 12,980	\$ 8,768	\$ 3,300

399



861 Village Oaks Drive, Suite 100 • Covina, California 91724
 Phone: (626) 967-6202 • FAX: (626) 331-7065 • Web site: www.stetsonengineers.com
 Northern California • Southern California • New Mexico • Arizona • Nevada • Colorado

Standard Fee Schedule (Effective January 1, 2014)

	\$\$ Per Hour
Principal	225
Special Project Director	225
Project Manager, Senior	195
Supervisor I	195
Supervising Soil Scientist	180
Supervisor II	180
Supervisor III	175
Senior I	154
Senior II	138
Senior III	127
Construction Manager	126
Construction Manager/Oversight	110
Senior Construction Inspector	110
Senior Field Geologist	126
Senior Associate	116
Associate I	110
Associate II	105
Associate III	100
Associate Soil Scientist	100
Senior Assistant	97
Assistant I	93
Assistant II	88
Assistant Soil Scientist	88
Assistant III	83
GIS Manager	110
GIS Specialist I	93
GIS Specialist II	83
Technical Illustrator	83
AutoCAD Technician	83
Soil Technician	73
Aide I	68
Aide II	58
Aide III	53
Project Coordinator I	127
Project Coordinator II	93
Project Coordinator III	83
Contract Management	95
Administrative I (word processing)	68
Administrative II	58
Administrative III	53



Direct Expense Rates

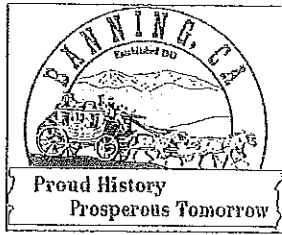
Expense Description	Billing Rate
Fax (In-House)	\$0.30/sheet
CAD (In-House)	\$15.00/hour
GIS Expense (In-House)	\$15.00/hour
Specialty Computer Expense (In-House)	\$5.00/hour
Mileage	\$/mile
Reproduction B & W (In-House)	\$0.15/sheet
Reproduction Color 8.5 x 11 (In-House)	\$0.89/sheet
Reproduction Color 11 x 17 (In-House)	\$1.89/sheet
Plotter Reproduction (In-House)	\$1.50/sq. ft.
4 x 4 Truck w/Drill Rig	\$150.00/day
Survey Equipment	\$120.00/day

*Mileage is billed at the current IRS approved mileage rate and may be subject to change.

All other project reimbursable expenses (i.e., telephone, commercial transportation, meals, lodging, postage, outside reproduction, etc.) will be billed at cost.

Note: Testimony fees are 150% of standard rates and apply to depositions, court time and time spent on standby at attorneys' request. Travel time and preparation time is charged at standard rates. Stetson Engineers Inc. authorizes only staff at associate classification or higher to testify as expert witnesses.

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City of Banning, CA



**Proposal to Prepare
City of Banning
2015 Urban Water Management Plan**

September 29, 2015

Submitted by:



West & Associates Engineering



September 29, 2015

SEP 29 2015

City Clerk's Office

Holly Stuart
Public Works Analyst
City of Banning
99 E. Ramsey Street
Banning, CA 92220

Subject: Proposal for 2015 Urban Water Management Plan

Dear Holly:

In accordance with your request for proposals (RFP), West & Associates is pleased to submit our proposal to develop the City's 2015 Urban Water Management Plan (UWMP).

In 2010-2011, I single-handedly prepared eight (8) UWMPs for agencies throughout Southern California, while working with SA Associates. I strive for highly professional reports, of which I have provided a sample in Section II of this Proposal. Most of the UWMPs I have completed were complete overhauls, as opposed to a more moderate update as your RFP has requested. In addition to the 2010 UWMPs, I am also working with SA Associates on several 2015 UWMPs throughout Southern California. Due to my extensive past and current experience, I have gained a close working relationship with Gwen Huff and Peter Brostrom of the Department of Water Resources (DWR), and they have become very familiar with me. This has allowed for 2015 UWMP success thus far, at a great value for these agencies. My focus in submitting a proposal for the City under West & Associates would be to provide the City with the same value that I have provided other clients while working with SA Associates, which allows for significant cost savings over other firms. I believe that UWMP preparation is actually quite easy, and I hope to make that the case for the City.

Although the UWMPs can easily be a single-person project, I have committed a team of experienced professionals to provide the leadership, management skills, and similar project experience to make your project a successful one. My relationship with most of these individuals extends back for many years and I am confident of their professionalism. In addition, I can guarantee the City that I will be personally involved in each page of the UWMP process.

I would like to thank you for the opportunity to submit our proposal. Please call me if you have any questions or desire additional information.

Sincerely,

Phillip West, P.E., QSD/QSP
Principal
philw@westaeng.com

enclosures



TABLE OF CONTENTS

Per the RFP, we have included the contents listed in Section 4.3, along with some additional information which should help the City evaluate our proposal as follows:

CONTENTS:

- COVER LETTER
- TABLE OF CONTENTS
- SECTION I: PROJECT TEAM & KEY STAFF BACKGROUND*
- SECTION II: QUALIFICATIONS/EXPERIENCE & REFERENCES
- SECTION III: PROJECT UNDERSTANDING, STRATEGY/APPROACH, & SCOPE OF WORK
- SECTION IV: QUALITY ASSURANCE PROGRAM
- SECTION V: PROJECT SCHEDULE
- SECTION VI: FEE ESTIMATE (IN SEPARATE ENVELOPE)

** Concise 1-page resumes are included in this Section*



SECTION I: PROJECT TEAM & KEY STAFF BACKGROUND

BACKGROUND EXPERIENCE

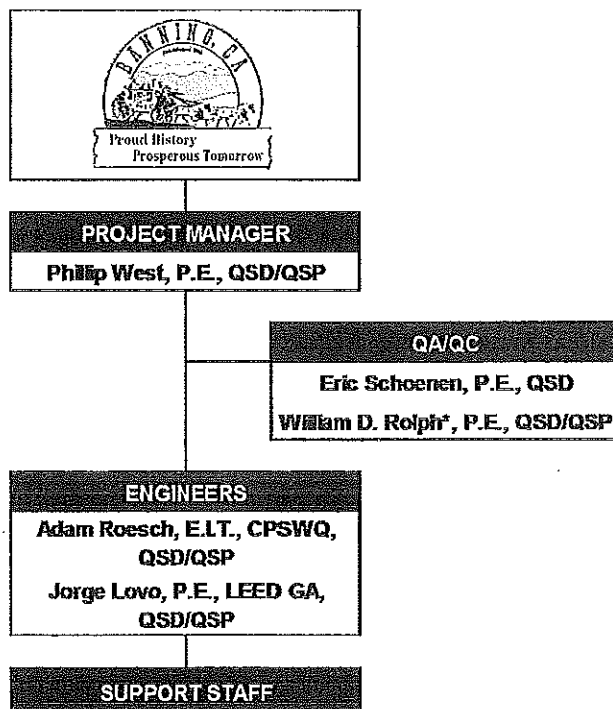
West & Associates provides Civil Engineering services to clients in the water/wastewater field. Mr. West's experience was gained through providing these services as a consultant himself to multiple agencies in the LA and Orange County areas for nearly 10 years before starting West & Associates. All of Mr. West's experience (or currently ongoing) projects are for public agencies. The West team of engineers and professionals are aware of the requirements of public agencies and are familiar with public procedures.

Our main fields of specialty are:

- Civil Engineering
- Water Supply Projects
- Wastewater Facilities Projects
- Construction Management and Construction Inspection Services
- Planning & Feasibility Studies
- Flood Control and Drainage Projects
- Surveying Services

STAFFING PLAN / PROJECT TEAM

The project team will consist of the individuals below. Mr. West will be the primary point of contact for the City. The team will meet, as needed, with City staff in your offices. Research will primarily be conducted online and by phone calls, and as necessary, we will keep in close contact with the Department of Water Resources (DWR).



Concise, one-page resumes of the above individuals are provided in this Section.

**Alternate QA/QC Team Member*



STAFFING ROLES

The Project Manager, Mr. Phillip West, is very competent, has considerable experience in preparing previous Urban Water Management Plans. He either personally prepared each of eight (8) 2010 UWMPs. He is in contact with the DWR and has kept himself apprised of any new developments, regulations, and changes to the 2015 UWMP requirements. Under his guidance, Mr. West will make certain that the project is on schedule and within budget.

The Engineers, primarily Mr. Roesch, will assist and receive direction from Mr. West in doing research and obtaining statistics and reports from the City to compile all the information necessary to produce a comprehensive, thorough, and clearly understandable report. They may also help Mr. West in the formatting of the final report.

Mr. Schoenen & Mr. Rolph will provide necessary review and give keen insight to assist with QA/QC into the development of the UWMP from start to finish. They will assure that the product is accurate, and is of high quality and value.

Resumes for our staff are included in this Section.

STAFFING AVAILABILITY

The following table provides a anticipated level of availability of the project team members. However, if we are the successful firm, we can like more fully commit the individuals to your project.

Team Member	Role	Availability*
Phillip West	Provide Project Management, Guidance, and act as Point of Contact for City.	100%**
Eric Schoenen	Provide Quality Assurance/Quality Control. Review draft and final reports for professional quality and for conformance to UWMP Act & DWR Requirements.	50%**
William Rolph	Provide Quality Assurance/Quality Control. Review draft and final reports for professional quality and for conformance to UWMP Act & DWR Requirements.	50%**
Adam Roesch	Conduct research, coordinate with agencies, review data, and prepare report.	100%**
Jorge Lovo	Conduct research, coordinate with agencies, review data, and prepare report.	50%**

**The project team members are currently working on several projects at the current time. However, due to staff expertise, the team members have ample experience working with multiple projects simultaneously without allowing each project to adversely affect the other.*

***100% availability is interpreted in this case as having the means to be fully attentive to your project without any restrictions on attending meetings. 50% availability is interpreted as having the means to be fully attentive to your project with some meeting attendance restrictions (while other current projects are being brought to a close). From our experience working on eight (8) UWMPs simultaneously, we believe that the more UWMPs an individual is responsible for, the better the familiarity, and the better the product.*

PHILLIP WEST, P.E., QSD/QSP Project Manager

OVERVIEW:

Mr. West serves as an Project Manager for projects related to water and wastewater systems. In the past few years, he has worked on a number of water supply and water planning projects for several public agencies. Other projects include water distribution, potable water treatment, storm drain, sewer, and street rehabilitation projects.

PROJECT EXPERIENCE:

EDUCATION:

California State University, Long Beach
B.S. Civil Engineering

REGISTRATION:

Registered Civil Engineer, California,
No. 77453

Qualified SWPPP Developer (QSD)
Qualified SWPPP Practitioner (QSP)
Certificate No. 25034

2010 URBAN WATER MANAGEMENT PLANS

Solely Responsible for the 2010 UWMPs for the following agencies:

- Azusa Light & Water
- Beverly Hills
- Lomita
- Lynwood
- Rialto
- San Fernando
- Santa Monica
- Torrance Municipal Water

CITY OF ARCADIA

- Prepared plans for the Orange Grove Disinfection System Upgrade Project. The project involved the installation of new DIP to connect the existing piping with three existing reservoirs. The project also involved the installation of a chlorine injector assembly, nitrate analyzers, drainage pipes, and concrete removal and replacement.

CITY OF ANAHEIM

- Recently prepared plans and specifications for the 8" Water Main Replacement in County Glen Way for the replacement of 5,300 ft. of 6 & 8-inch ductile iron pipe and 6 & 8-inch polyvinyl chloride (PVC) pipe.

CITY OF COMMERCE

- Currently providing design services to the City of Commerce for water main (fire flow), and pavement improvements to its Camp Commerce site in Lake Arrowhead, CA. The scope of services include evaluation of alternative alignments, coordination with outside agencies including Caltrans, San Bernardino County Fire Department, and Lake Arrowhead Community Services District (LACSD), and engineering design. The design includes a connection to an existing LACSD 8 inch main in State Hwy. 173 and structural rehabilitation of a snow drop concrete pad.

CITY OF GLENDORA

- Prepared plans for well head facilities and well pump for new well No.14. The new well is located at Willow Springs Park near the intersection of Leadora Avenue and Willow Springs Lane east of Sellers School. The site is located in a residential area and is approximately 0.5 acre. The well capacity is approximately 350 gallons per minute and the Pumping level is at 480 feet below ground surface. The well casing is 18-inch diameter and the has an inflatable packer to allow isolation of groundwater between 385 feet and 410 feet below ground in the event water quality issues are encountered. Disinfection provisions is a temporary sodium hypochlorite feed system utilizing a drum and drum pump. The project also involved field verification of SWPPP/BMP items at the site.

KINNELOA IRRIGATION DISTRICT (Pasadena, CA)

- Currently preparing plans & specifications for design of the East-West Tank Connector Pipeline consisting of 2,800 ft of 12" DIP, including connections to existing main, Design of 960 ft of 4" DIP, including connections to existing 4" steel tunnel line, Design of 2 Los Angeles County Flood Control Channel crossings.

LONG BEACH WATER DEPARTMENT

- Currently preparing plans and specification for the East 27th Street and Via Passilo Cast Iron Water Main Replacement Project which consists of the replacement of approximately 4,000 feet of 6 & 8 inch cast iron & ductile pipe.
- Provided inspection for the Groundwater Treatment Plant Chemical Tank Replacement Project – Phase I. The project involved the replacement of three existing polyethylene chemical storage tanks (two 13,500 gallon Sodium Hydroxide Tanks and one 10,000 gallon Cationic Polymer Tank) located within LBWD's Groundwater Treatment Plant, along with chemical piping, vent piping, liquid level indicators, and SCADA equipment.

ERIC SCHOENEN, P.E.
Quality Assurance/Quality Control

OVERVIEW:

Mr. Schoenen has over 20 years of experience with a mix of land surveying, design, plan check, conditions of approval, strategic planning, and capital improvement projects. He has over 16 years of experience working for a Water Utility Franchise. Experience includes budget estimating, scheduling, technical report writing, and City Council Agenda Reports. Responsible for coordination with professional consultants and staff to implement CIP projects as a project manager.

PROJECT EXPERIENCE

EDUCATION:

California Polytechnic University,
Pomona
B.S. Civil Engineering, 1988
University of California, Riverside
Supervisory Excellence I and II, 1998

REGISTRATION:

Registered Civil Engineer, California

URBAN WATER MANAGEMENT PLANS

- Assisted with Quality Assurance/Quality Control for several 2010 UWMPs, including the City of Santa Monica, Beverly Hills, Torrance, and Azusa. Currently scheduled to provide Quality Assurance/Quality Control for 2015 UWMPs for various agencies, including City of Santa Monica & City of Lomita.

CITY OF SANTA MONICA

- Currently providing construction management and inspection services for the Water Main Replacement/Upgrade Project (SP 2297) which includes replacing and/or upgrading existing facilities and the abandonment of old facilities. The project consists of approximately 10,000 ft. of 6" to 21" PVC pipe on Olympic Blvd., Lincoln Ct., Pennsylvania Ave., 16th Ct., 17th Ct., 18th Ct., 20th Ct. Euclid Ave., and Ocean Ave. Some nighttime work will be involved because of heavy vehicular and pedestrian traffic on portions of the project.

LONG BEACH WATER DEPARTMENT

- Currently providing engineering services for design of the East 27th Street and Via Passilo Cast Iron Water Main Replacement Project which consists of the replacement of approximately 4,000 feet of 6 & 8 inch cast iron & ductile pipe.

CITY OF LYNWOOD

- Provided engineering services for the State Street and Tweedy Boulevard Water Main Replacement Project. The project included the design of 8 and 12-inch DIP to replace 6-inch CIP within the routes. Total length of replacement for the project was approximately 2,900 feet.

CITY OF POMONA

- Also currently providing construction management and inspection for the Water Main Replacement - Park Avenue to replace about 2,000 linear feet of a 12 inch steel water distribution main in Park Avenue between Orange Grove and McKinley Avenue with a new 16-inch DIP main, including new hydrants and service connections. This project also aims to remove/replace about 520 linear feet of VCP sewer in Holt Avenue, about 220 linear feet of VCP sewer in White Avenue, and about 92 linear feet of VCP sewer in/adjacent to Via Estrella.
- Provided construction management and inspection services for Westmont Services Lateral Replacement Project. The project included 20 locations. Work included replacing 183 existing ¾-inch polyethylene laterals with 1-inch copper tubing from the meter connection to the water main within the right of way, replacing 23 meter boxes and relocating 8 meter boxes to the sidewalk in addition to replacing cracked/damaged meter boxes and lids
- Provided construction management services for the Phillips Ranch Water Service Laterals and Flush Tanks/Lamp Hole Replacements and New Manhole Installation projects under the City's FY 2008-09 Water & Sewer CIP. Project included replacing approximately 464 service laterals ranging in size from ¾" to 2½".
- District 1, 2, and 5 Water Main Replacement Project: prepared plans and specifications for District 1, 2 and 5 Water Main Replacement Project for approximately 4,220 feet of 8", 10", and 12" ductile iron water mains in various streets.

JORGE LOVO, P.E., LEED G.A., QSD/QSP Engineer

EDUCATION:

B.S. Civil Engineering
University of Hawaii

REGISTRATION:

Registered Civil Engineer, California
No. C75632
Registered Civil Engineer, Canada
Board of Professional Engineers

CERTIFICATION:

LEED Green Associates – Green
Building Certification Institute, ID
No.
10779963
Construction Management, University
of
Quebec, Canada
Professional Studies in Technique of
Architecture, College of Old
Montreal

Qualified SWPPP Developer (QSD)
Qualified SWPPP Practitioner (QSP)
Certificate No. 25596

OVERVIEW:

Mr. Lovo has over 14 years of experience designing and managing a variety of water-related projects and programs ranging from water, wastewater, recycled water, and storm water facilities including conveyance, water quality & treatment, pump stations, and storage. Providing technical leadership on small to large sized projects; supporting teams winning new business; interacting with clients, agencies and other consulting firms; preparing detailed engineering calculations, CAD drawings, estimates, master planning, facilities condition assessment, construction support, preparation of plans, specifications and others documents for permitting and construction.

PROJECT EXPERIENCE:

URBAN WATER MANAGEMENT PLANS

Currently preparing several 2015 UWMPs for various agencies, including City of Santa Monica, City of Lomita, & San Gabriel Valley Municipal Water District.

CRESCENTA VALLEY WATER DISTRICT

- Conducting a preliminary feasibility study to use recycled water at Los Angeles County's Two-Strike Park.

ROSE HILLS MEMORIAL PARK

- Recently designed the recycled water retrofit for 600 acres of Rose Hills Memorial Park and Cemetery. The design included approximately 4,500 LF of 8" potable water/fire protection pipeline, 8,000 LF of 4" and 8" potable water pipeline, and modifications to the four (4) on-site wells and four (4) reservoirs. The project team is coordinating with Rose Hills staff, Upper San Gabriel Valley Municipal Water District, Los Angeles County Sanitation Districts, San Gabriel Valley Water Company, Los Angeles County Department of Public Health, and the Los Angeles County Fire Department. This project is funded by DWR Proposition 84, Round 3 – Drought Grant and MWD On-Site Recycled Water Retrofit.

WET INFRASTRUCTURE FACILITIES AND LAND DEVELOPMENT FOR THE CITIES OF TORRANCE, COMPTON, EL SEGUNDO, AND AZUSA

Civil Engineer for a variety of wet infrastructure projects ranging from water supply, wastewater collection, drainage and hydrology studies, storm water conveyance, pump stations, recycled water, site grading, access roads design, pre and post land development run-off, BMPs, LID, and storage facilities.

- Water resources studies for groundwater and well construction, Santa Clarita, CA.
- Groundwater assessment, well design, pumps layout, wellhead treatment options, & water rights allocations.

STRATEGIC PLANNING ASSESSMENT FOR REGIONAL USE OF RECYCLED WATER

- Strategic planning & design for up to 200 mgd of purified recycled water from the Los Angeles County Sanitation District to the Main San Gabriel Basin. The assessment included advanced water technologies (UV, RO, MF), ground water replenishment (GWR), spreading grounds, water quality, extraction wells, wellhead treatment pumping requirements, conveyance, as well as, reservoir reconnaissance studies (RA).
- Delta Wetlands Project, San Joaquin–Sacramento Delta Islands, CA (Western Development):
- Revamping of two Delta islands into reservoirs capable of storing 215,000 acre-feet of water; fatal flaw analysis; construction techniques and preparation of technical documents; project sensitivity analysis; coordination with agencies, internal teams, and other participant consulting firms.

ADAM ROESCH, E.I.T., CPSWQ, QSD/QSP Engineer

OVERVIEW:

Mr. Roesch serves as an assistant engineer for various projects, including water main, wells, sewer, storm, & street projects. Due to his knowledge of engineering principles, Mr. Roesch provides valuable engineering assistance. Also, due to his past and part-time experience in environmental engineering/water quality, Mr. Roesch provides valuable technical assistance, especially in areas related to NPDES permitting.

PROJECT EXPERIENCE

EDUCATION:

California State University, Long Beach
B.S. Civil Engineering

REGISTRATION:

Engineer in Training, California

Certified Professional in Storm Water
Quality (CPSWQ)
Certificate No. 1022

Qualified SWPPP Developer (QSD)
Qualified SWPPP Practitioner (QSP)
Certificate No. 25508

SOFTWARE:

Microsoft Office
Adobe
Autodesk (AutoCAD)

URBAN WATER MANAGEMENT PLANS

- Assisted with preparing revisions to the 2010 UWMP for the City of Lynwood. Currently involved in preparing several 2015 UWMPs for various agencies, including City of Santa Monica & City of Lomita.

CITY OF ARCADIA

- Assisted with preparing plans for the Orange Grove Disinfection System Upgrade Project. The project involved the installation of new DIP to connect the existing piping with three existing reservoirs. The project also involved the installation of a chlorine injector assembly, nitrate analyzers, drainage pipes, and concrete removal and replacement.

CITY OF ANAHEIM

- Recently prepared plans and specifications for the 8" Water Main Replacement in County Glen Way for the replacement of 5,300 ft. of 6 & 8-inch ductile iron pipe and 6 & 8-inch polyvinyl chloride (PVC) pipe.

CITY OF RIALTO / VEOLIA WATER SERVICES

- Currently providing engineering services for the preparation of Specifications for several water utility replacement projects in the City of Rialto. Veolia Water has leased the City of Rialto's water utility and is planning to replace hundreds of water services, water meters, fire hydrants, and sewer manholes throughout the City's limits.
- Recently prepared plans & specifications for the Well 1 Replacement project. The project involved a replacement well at the City's Well 1 & 2 well site located at the banks of the Lytle Creek. The new well will be rated for 2,500 gpm at 1,000 ft bgs and will include a building enclosure.

CITY OF SIERRA MADRE

- Currently assisting with preparing plans and technical specifications for the Grand View Sewer Main Improvement Project. The project involves utility research, the coordination with outside utility agencies such as MWD, the removal and replacement of approximately 400 linear feet of 10-inch VCP along Grand View Avenue as well as 750 square feet of street rehabilitation.

KINNELOA IRRIGATION DISTRICT

- Currently preparing plans for the East-West Tank Connector Pipeline Project. The project involves improving the reliability and service of the District's water distribution system by connecting the distribution system of its East Tank and West Tank Reservoirs with a 12-inch water line. In addition to the 12-inch water main, the project also involves the installation of a 4-inch DIP main alongside the 12-inch DIP main in order to abandon an existing 4-inch waterline that runs through private properties. Mr. Roesch performed the utility research, coordinated with utility companies within the project vicinity, and is currently assisting in preparing the plans.

LONG BEACH WATER DEPARTMENT

- Currently preparing plans and specification for the East 27th Street and Via Passilo Cast Iron Water Main Replacement Project which consists of the replacement of approximately 4,000 feet of 6 & 8 inch cast iron & ductile pipe.



SECTION II: QUALIFICATIONS/EXPERIENCE & REFERENCES

EXPERIENCE/REFERENCES

Below is a list that contains contact references of public agencies for which Mr. West* has prepared 2010 UWMPs:

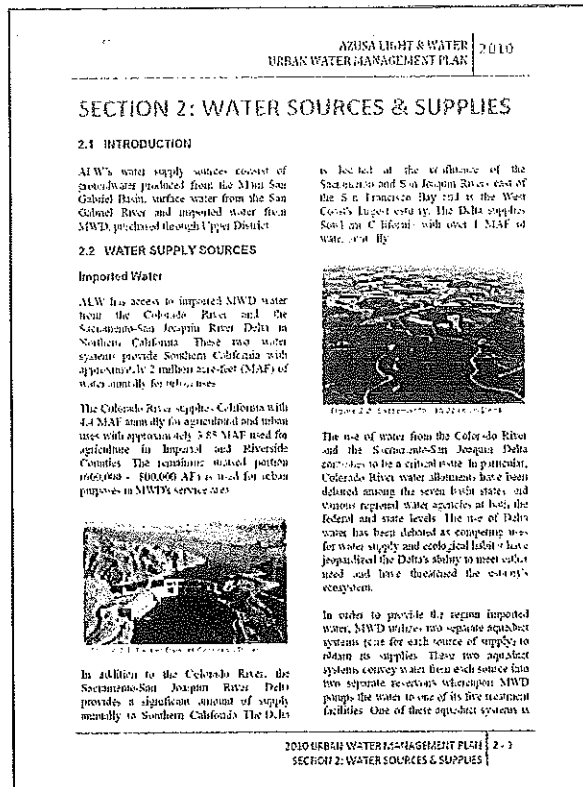
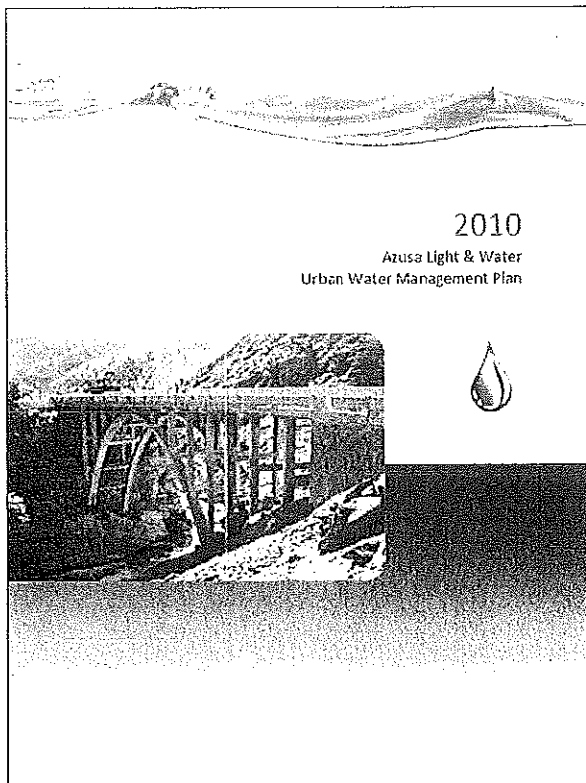
2010 UWMPs					
Agency	Contact Person	Telephone #	E-Mail	Address	Dates of Engagement
Azusa	Chet Anderson Asst. Director	(626) 812-5209	canderson@ci.azusa.ca.us	729 N. Azusa Ave. Azusa, CA	Nov. 2010 – July 2011
Beverly Hills	Daniel Cartegena	(310) 285-1189	dcartagena@beverlyhills.org	455 N. Rexford Dr. Beverly Hills, CA	Sept. 2010 – August 2011
Lomita	Tom Shahbazi	(310) 325-7110	tshahbazi@lomitacity.com	24300 Narbonne Lomita, CA	Nov. 2010 – July 2011
Lynwood	Jose Molina Utility Services Mgr.	(310) 603-0220 Ext. 800	jmolina@lynwood.ca.us	11330 Bullis Rd. Lynwood, CA	March 2011 – June 2011
Rialto	Nadeem Syed	(760) 323-8166 Ext. 124	nadeem.syed@veolia.com	4375 E. Mesquite Palm Springs, CA	March 2011 – August 2011
San Fernando	Ron Ruiz (former PW Dir)	(818) 898-1222	rruiz@sfcity.org	117 Macnell St. San Fernando, CA	March 2011 – July 2011
Santa Monica	Gill Barboa Water Resources Mgr.	(310) 458-8230	gill.borboa@smgov.net	1212 5th St. Santa Monica, CA	Feb. 2011 – July 2011
Torrance	Chuck Schaich Water System Analyst	(310) 618-6219	cschaich@torranceca.gov	20500 Madrona Torrance, CA	Feb. 2011 – August 2011
2015 UWMPs (current)					
Agency	Contact Person	Project Status			
Lomita	Tom Shahbazi	Just underway			
Santa Monica	Jessica Arden Resources Egr.	Not yet started			
Foothill Municipal Water Dist.	Nina Jazmadarian, General Mgr.	Not yet started			
San Gabriel Valley Municipal Water Dist.	Darin Kasamoto, General Mgr.	Just underway			

*When contacting the references, please refer to Mr. West's time with SA Associates



SAMPLE OF PAST WORK

As indicated by the table on the previous page, Mr. West has extensive experience in the UWMP preparation process. As a result, we strive to prepare high-quality UWMPs that will not only meet requirements but also act as a source document of clear, precise, and organized information. To reflect the quality of our work, we have included a sample portion of our 2010 UWMP for Azusa Light & Water below:



Full samples of the 2010 Urban Water Management Plans prepared by Mr. West can be found on the State of California Department of Water Resources website. Please see the links on the following page:

- ❖ 2010 UWMP for the City of Beverly Hills:
<http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Beverly%20Hills,%20City%20of/>
- ❖ 2010 UWMP for the City of Santa Monica:
<http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Santa%20Monica,%20City%20of/>
- ❖ 2010 UWMP for the City of Azusa:
<http://www.water.ca.gov/urbanwatermanagement/2010uwmps/Azusa,%20City%20of/>

In preparing the City's 2015 UWMP, we intend to provide the City with the same attention to detail while providing the necessary updates in accordance with the most recent DWR guidelines.



SECTION III: PROJECT UNDERSTANDING, STRATEGY/APPROACH, & SCOPE OF WORK

PROJECT UNDERSTANDING

It is our understanding that the City of San Bruno (City) is seeking engineering services for the preparation of the City's 2015 Urban Water Management Plan. As mandated by the State of California's Urban Water Management Planning Act, every urban water supplier providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet of water annually, is required to prepare and adopt an Urban Water Management Plan (UWMP) containing prescribed requirements. The Plan needs to be periodically reviewed at least once every five years. An UWMP is required in order for a water supplier to be eligible for State grants and loans and drought assistance. An UWMP is considered to be a foundation document and a source of information for Water Supply Assessments (Senate Bill 610) and Written Verifications of Water Supply (SB 221). In addition, an UWMP may serve as a long-range planning document for water supply, a source of data for development of a regional water plan, and a source document for cities and counties as they prepare their General Plans. These planning documents are linked, and their accuracy and usefulness are interdependent.

The 2015 UWMP will be in accordance with the 1983 Urban Water Management Planning Act and subsequent amendments, including the passage of SBx7-7 in 2009 (20%x2020 -Steinberg). As with the 2010 UWMPs, the 2015 UWMPs must have a public notification period of 60 days prior to the public hearing and are to be submitted to DWR by July 1, 2016. According to the California Department of Water Resources (DWR) website, the 2015 UWMP Guidebook is scheduled to release by July 1, 2015 (one year prior to the UWMP submittal date). Finally, we acknowledge that the City desires its 2015 UWMP to be prepared as an update of its 2010 UWMP.

CITY WATER SYSTEM UNDERSTANDING

The City of Banning was incorporated in 1913 and is located in the western part of Riverside County. The City encompasses about 23.2 square miles along the San Geronio Pass, and its Sphere of Influence (SOI) encompasses another 8.5 square miles. The City's SOI is essentially County lands which are under the City's advisory. The City's northerly borders, along with its Sphere of Influence (SOI) northerly borders, coincide with the northerly borders of Riverside County and the southerly borders of San Bernardino County. According to most recent data, the City has a population of 30,325 persons. Substantial portions of the City are already developed, but a large portion remains undeveloped. Most of the undeveloped areas are located in the northerly part of the City. The City does expect land development to continue at a steady rate, with growth estimates at around 2%.

With regard to the City's water system, the City of Banning Public Works and Utilities Department currently provides water service to the entire City as well as unincorporated areas of the county that bound the south City limits. The City owns and operates wells, reservoirs, and a distribution line system to deliver domestic water within the Banning planning area. The following are just a few highlights of the City's water system, with information provided by RFP and our own research:

- The City maintains 11,006 metered connections
- 100% of the water that it supplies from local groundwater aquifers. The wells are located in five separate ground water storage units. The City currently operates 21 active ground water production wells and co-owns 3 production wells with the Beaumont Cherry Valley Water District (total of 24 active wells). The 24 wells have a design capacity of 24,300 gallons per minute (GPM). In 2014 the City produced and provided approximately 8,500 acre-feet. Water service is provided. Two highest producing units are Banning Canyon and Beaumont Units.
- Ground water recharge is obtained from precipitation infiltrating into the ground and from subsurface inflow (i.e. underflow) from storage unit to storage unit
- The City maintains spreading (percolation) ponds to enhance percolation
- The City also has an imported connection to (San Geronio Pass Water Agency) SGPWA
- Since 1999, the City also provides wholesale water to High Valley Water District
- The City also just recently begun distributing recycled water as a result of its Phase 1 Recycled Water Project. Water is produced from its water treatment facility located off the SE corner of City off of Charles St. Some of this recycled water is used for the percolation ponds.



SBx7-7 BASELINES & TARGETS

Based on our experience on past and current UWMP projects, since the City of Banning is primarily a retail supplier (a small amount is wholesaled to High Valleys Water District), the provisions of SBx7-7 (Water Conservation Act of 2009) **apply directly** to the City. Per SBx7-7 provisions, each agency's requirements differ*.

We have analyzed the City's 2010 UWMP, and we note that the 10-year average baseline (2001 - 2010) per capita water use average was estimated to be a **very-high 315 gallons per capita per day (GPCD)**. Unfortunately, this is due to the land-use characteristics of the City. The City's water use according to the 2010 DWR form 38 was only 60% residential. Also, because of the City's climate, residential water use is higher than its residential counterparts in cooler coastal climates.

Because the City's baseline is much higher than the hydrologic region wherein it resides, the City **must meet the requirements of SBx7-7 Method 1 (strict 20% reduction)**. Fortunately, for the City, there appears to be a trend towards greater efficiency. According to the 2010 number in the 2010 UWMP, the daily per capita use was estimated to be 256 GPCD. Per the numbers described on the previous page, we have $(8,500 \text{ AF} \times 325,851 \text{ Gal/AF} / 30,325 \text{ persons} \times 365 \text{ days}) = 250 \text{ GPCD}$. **Thus, it appears the City is currently in compliance with SBx7-7**.**

*Senate Bill X7-7 requires water agencies in the State to achieve a 20% reduction in urban per capita water use by December 31, 2020. The law requires the State (DWR) to make incremental progress towards this goal by reducing per capita water use by at least 10% on or before December 31, 2015. This requirement varies by agency depending on water use efficiency and may be less than a strict 20% reduction (Method 1), a minimum 5% reduction from 5-year baseline if under a 5% reduction from the hydrologic region target (Method 3), other more or no reduction required for agencies with water use less than 100 GPCD.

**Note: SBx7-7 compliance does not include any other water reduction targets enforceable by the State of California, such as executive order B-29-15 signed by Governor Brown and enforced by the State Water Resources Control Board.

KEY UPDATES TO 2015 UWMPs

Per our discussions with Gwen Huff and Peter Brostrom of DWR, as well as our participation in recent webinars, and our review of the draft 2015 Guidebook, we understand the following to be some of the key updates to the UWMPs:

1. Updates to Water Shortage Contingency Plan
 - Shortage contingency section of UWMP to discuss specific water features (ponds/fountains/pools).
 - Water features are to be defined.
2. Enforcements of SBx7-7
 - Beyond showing baselines and targets, UWMPs must show mid-term (2015) compliance.
 - Beginning in 2016, agencies must comply with mid-term goals to be eligible for State funds.
3. Water Losses
 - Agencies must indicate the quantity of water losses, if not already shown in UWMPs
4. Updates to DMMs
 - Fewer DMMs required in the 2015 UWMP
 - Focus to be on the extent of the DMMs as opposed to the description of the standard 14 DMMs



STRATEGY / PROJECT APPROACH

Due to our past and current experience, we will prepare the 2015 UWMP in accordance with a work plan we have developed for preparing 2015 UWMPs. We tailor the work plan for each specific agency. For the City, our strategy/approach is as follows:

1. Collect and review available data from the City and outside agencies. Study the data and become highly familiar with the data. The more the author knows about a subject, the greater the efficiency and the ability to avoid mistakes and provide a highly professional touch.
2. Per SBx7-7, evaluate Current Drought conditions, Current Mid-Term (2015) Standing, and Impacts of SBx7-7 on the City. Determine Requirements for Meeting 2020 Goals. We have already provided the City with a preliminary analysis of its SBx7-7 targets on the previous page.
3. After review of Data & SBx7-7 in 1 & 2 above, focus on the **development process** of preparing the Draft & Final UWMPs. Although the **data required** of the City's UWMP is the **same** as other retail agencies, the **development process** is a bit more complex than a lot of other build-out agencies. That is, because the City is expanding and contains multi-faceted land-use, the modeling/forecasting to address the UWMP requirements is a bit more complex. We fully understand this and will work closely with City staff to keep the focus where it should be. We will ensure the Draft and Final 2015 UWMPs are fully satisfactory.
4. Utilize QA/QC staff and coordinate with support staff to help with editing and printing/delivery. This will ensure that the six (6) hard copies of the Draft and six (6) hard copies of the Final UWMP are **delivered on time and in the highest quality**.
5. Assist the City with Advertisement, Public Outreach, Council Relations (Including Attending Council Meeting).
6. Submit Adopted UWMP to DWR*.

The work involved with categories 1, 2, and 5 involve City staff assistance; however, we will do our best to minimize City staff time involvement for this work in order to create additional value for the City.

*Note: After submittal to DWR, feedback is expected concerning the content of the City's UWMP as it relates to the legal requirements of the Water Code. It is anticipated that DWR may take up to four years to provide feedback on the City's UWMP.

SCOPE OF WORK

Your RFP provides a typical scope of services for this project. We will provide the services as described in your RFP and as supplemented below:

A. Preliminary Water System Analysis and Data Collection

Work to be performed under this work item shall include, but not be limited to, gathering all data pertinent to the preparation of the City's UWMP, reviewing the 2010 UWMP, conducting a kick-off meeting, establishing internal contacts with City staff, establishing contacts with outside agencies necessary to obtain additional data and assistance as it becomes necessary, and conducting a thorough review of all data received as it relates to the UWMP requirements.

B. Preparation of Draft Urban Water Management Plan/Progress Meetings with the City

This work item shall include the preparation of the City's UWMP per the latest requirements, and shall include the following content:

1. Describe the service area of the City. Include current and projected population in five-year increments over a 25 year period. This data will be provided by the City.



2. Identify and quantify the existing and planned sources of water available to the City over the same five-year increments as in Task 1 above.
3. Describe the groundwater basin from which the City extracts groundwater, and provide information such as the static pumping levels, water quality, extraction rate, total storage, and recharge. This data will be provided by City.
4. Describe the reliability of the water supply and vulnerability to seasonal or climatic shortages, and provide data for an average water year, a single dry water year, and multiple dry water years.
5. Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.
6. Quantify past, current, and projected water use over the same five-year increments as in Task 1, and identify the uses among water use sectors, including*:
 - a. Single-family residences
 - b. Multifamily
 - c. Commercial
 - d. Industrial
 - e. Institutional and governmental
 - f. Landscape
 - g. Sales to other agencies
 - h. Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination
 - i. Agricultural
7. Describe the City's water demand management measures (DMMs). This description will include:
 - a. A description of the planned efforts of the water agency in implementing each of the following DMM categories*:
 - (1) Water Waste Prevention Ordinances
 - (2) Metering
 - (3) Conservation Pricing
 - (4) Public Education & Outreach
 - (5) Programs to assess and manage distribution system real loss
 - (6) Water conservation program coordination and staffing support
 - (7) Other*
 - b. A schedule of implementation for all water demand management measures proposed or described in the Plan.
 - c. A description of the methods that the City will use to evaluate the effectiveness of water demand management measures implemented or described under the Plan.
 - d. An estimate, if available, of existing conservation savings on water use within the City's service

*Note: Per our recent telephone discussions with DWR staff, there are fewer DMMs required in the 2015 UWMP, and the focus of the text on the DMMs in the 2015 UWMPs will be on the *extent* of the DMMs the City is actually implementing as opposed to the *description* of the DMMs the City may or may not be implementing. As shown from the list above, there are much fewer DMMs than in the 2010 UWMP.



area, and the effect of such savings on the City's ability to further reduce demand.

8. Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration will be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do the following:
 - a. Take into account economic and non-economic factors, including environmental, social, health, customer impact, and technological factors.
 - b. Include a cost-benefit analysis, identifying total benefits and total costs.
 - c. Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.
 - d. Include a description of the City's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.
9. Prepare a detailed description of expected future projects and programs, other than the demand management programs, that the City may implement to increase the amount of the water supply available to the City in average, single-dry, and multiple dry water years.
10. Describe the opportunities for development of desalinated water, including ocean water, brackish water, and ground water, as a long-term supply.
11. Provide the wholesale agency with water use projections in five-year increments to 20 years or as far as data is available.
12. Prepare an Urban Water Shortage Contingency analysis, which includes the following elements:
 - a. Stages of action to be undertaken by the City in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions that are applicable to each stage.
 - b. An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the City's water supply.
 - c. Actions to be undertaken by the City to prepare for, and implement during, a catastrophic interruption of water supplies, including a regional power outage, an earthquake, or other disaster.
 - d. Additional mandatory prohibitions against specific water use practices during water shortages, including prohibiting the use of potable water for street cleaning.
 - e. Consumption reduction methods in the most restrictive stages.
 - f. Penalties or charges for excessive use.
 - g. The revenues and expenditures of the City, and proposed measures to overcome those impacts.
 - h. A draft water shortage contingency resolution or ordinance.
 - i. A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.
13. Evaluate the requirements of Senate Bill No. 7 to achieve a 20% reduction in urban per capita water use by December 31, 2020 and by at least 10% by December 31, 2015.
14. Provide, to the extent available, information on recycled water and its potential for use as a water



source in the City's service area.

15. Include information, to the extent practicable, relating to the quality of existing sources of water available to the City over five-year increments over the next 25 years and the manner in which water quality affects water management strategies and supply reliability.
16. Provide an assessment of the reliability of the City's water service, which will include an assessment of the reliability of the City's water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the City with the total projected water use over the next 25 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years.
17. Prepare a report outlining the findings, conclusions, and recommended actions pursuant to the Urban Water Management Planning Act. Two (2) copies of the draft Plan will be submitted to the City for review. A reproducible copy of the final Plan, incorporating the City's comments, will be submitted to the City.

D. Finalization of UWMP/Coordination with Public/Submission to Department of Water Resources

Work to be performed under this work item shall include, but not be limited to, submission of final UWMP to City staff, providing assistance to City staff in conducting a public hearing, attending said public hearing, and providing assistance to City staff for the adoption and resolution of the City's 2015 UWMP. Once the City adopts its 2015 UWMP, we will provide assistance to submit the approved plan to DWR.

CITY FURNISHED SERVICES

It is anticipated that City will provide the following:

1. Historic and current water demands & service connections.
2. Historic and current water production/supply.
3. Information on DMM or conservation measures currently adopted and being practiced.
4. Miscellaneous data as-needed for preparation of 2015 UWMP.



SECTION IV: QUALITY ASSURANCE PROGRAM

QUALITY CONTROL METHODS

For this project, we have designated a Quality Control position who will thoroughly review internal drafts of the 2015 UWMP. In addition, we utilize computerized Quality Control methods by using Adobe PDF software as opposed to hard copies to check for formatting and marginal errors normally detected after printing has taken place in order to avoid internal paper waste (i.e. being "green").

Our goal is to present our clients with a superior design product and responsive service. To accomplish this, we apply a sound company policy which emphasizes technical strength, professional conduct, efficiency, and communication. We will accomplish our Quality Assurance goals by adhering to review and checking procedures that correspond to our basic philosophy on quality assurance.

Our basic philosophy is described below:

- The review and checking procedure must be a systematic approach with sufficient flexibility to be workable with a wide variety of projects. The timing and level of review must be consistent with project needs.
- Responsibility for the quality of the final product rests jointly with the Project Manager/Engineer and the reviewer/checker.
- Responsibility for scheduling review and checking rests with the Project Manager/Engineer.
- All projects must be reviewed by an experienced individual not directly involved in the project, although general familiarity with the project and the client would be desirable.
- All projects must be "signed off" by the checker following review and/or checking.

QUALITY CONTROL GUARANTEE

West & Associates guarantees the quality of this project. As is often the case with UWMPs, the Dept. of Water Resources (DWR) may issue comments on the 2015 UWMP several years after its submittal. At that time, we will be available to assist the City to address any comments to the full satisfaction of DWR. **Our goal is to not merely complete the scope of work and be in good standing with the City's contract, but to ensure the City is in good standing with DWR.**



SECTION V: PROJECT SCHEDULE

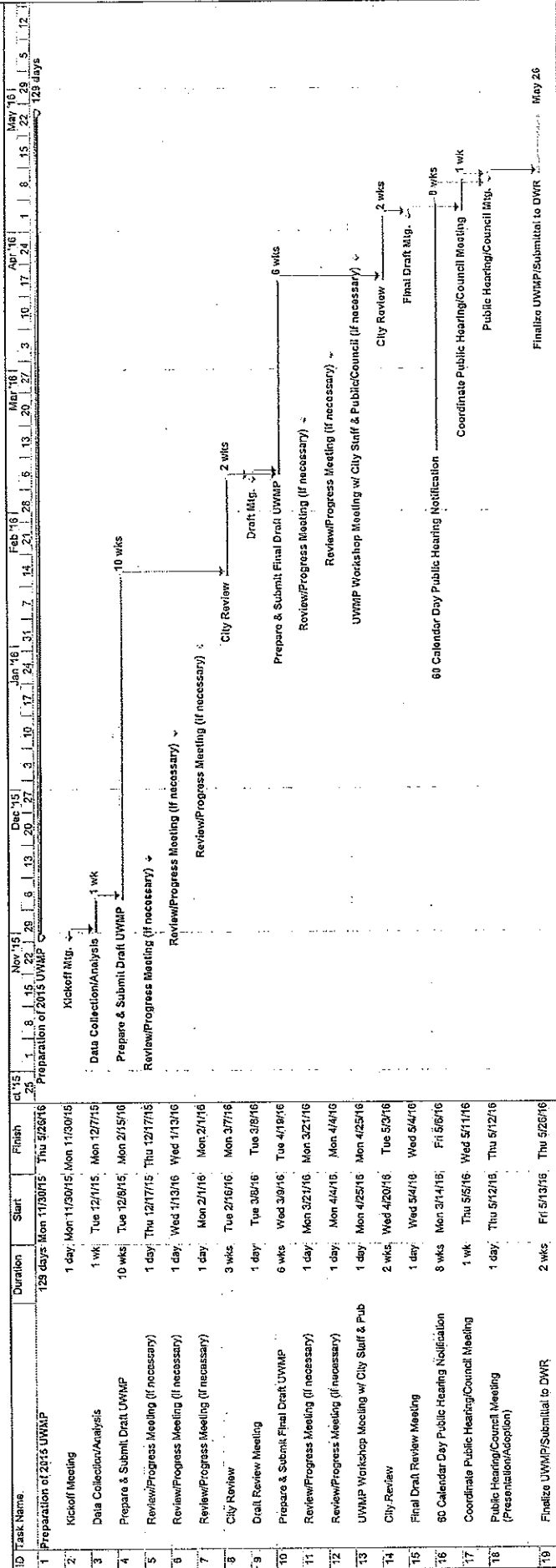
PROJECT SCHEDULE

We have included our project schedule in MS Project format for the preparation of the City's 2015 UWMP on the following page.

The assumed project start date of November 30, 2015 shown coincides with an assumed proposal review and contract approval process (with a Notice to Proceed date on November 30, 2015). If the Notice to Proceed is issued at a different date, we will update our schedule accordingly. According to State requirements, all UWMPs must be submitted to the Department of Water Resources no later than July 1, 2016. By finishing the Final Draft by the end of May, the City will have sufficient time to hold the necessary meetings and adopt the plan before preparing a submittal to the State Department of Water Resources.



**City of Banning
Proposal for
2015 Urban Water Management Plan
Project Schedule**





SECTION VI: Fee Estimate

FEE SCHEDULE*

Task No.	Item	PM \$180	Engr \$122	QA/QC \$140	Sec. \$80	Total Hours	\$
NON OPTIONAL WORK							
Pt. 1 - Data Collection, Review, & Report Preparation							
1	2010 UWMP Review/Analysis	6	12	2	2	22	\$2,984
2	Data Collection/Analysis	8	12	2	2	24	\$3,344
3	Prepare & Submil 1st Draft UWMP for Staff Review	32	128	14	12	186	\$24,296
4	Prepare & Submil "FINAL" Draft UWMP for City Council Hearing/Adoption	24	88	10	8	130	\$17,096
5	Finalize UWMP, Submit to DWR, Input Data to DWR DOST Website	2	16	4	4	26	\$3,192
Subtotal		66	244	30	26	366	\$50,912
Pt. 2 - Coordination, Meetings, Etc.							
1	Kick-Off Mtg & Minutes	5	5	5	2	17	\$2,370
2	Progress/Review Meetings (8) & Minutes	32	36		6	74	\$10,632
3	Workshop(s): Public/Stakeholder Outreach & Coordination	8	10		2	20	\$2,820
4	Council Meeting (Public Hearing/Adoption)	5	5		4	14	\$1,830
5	Miscellaneous Coordination with Outside Agencies, Public, etc.	6	12		2	20	\$2,704
Subtotal		56	68	5	16	145	\$20,356
Direct Costs (printing, reproduction, mileage, etc.)							\$3,732
NON-OPTIONAL WORK		122	312	35	42	511	\$75,000

*Note: Tasks listed above do not entirely coincide with tasks of the RFP (Scope of Services). For ex, the Tasks of Section 2 are mostly lumped into Tasks 3 & 4 of Pt. 1 above.

HOURLY CHART RATE AND EXPENSE REIMBURSEMENT SCHEDULE

Position	Hourly Rates
Project Manager	\$180.00
Engineer	\$122.00
Quality Assurance/Quality Control	\$140.00
Secretary	\$ 80.00

Reimbursable In-House Costs

Photo Copies	\$ 0.15/each
Blueprints	\$ 0.50/S.F
Vehicle mileage, between engineer's office and project site and/or client offices, will be billed at	\$ 0.58/mile
Reproduction, special photograph, printing, and any other services performed by subcontractor will be billed at	cost + 15%
Postage Delivery Service, Express Mail	cost + 15%

NOTE: All rates listed above are effective to December 31, 2016

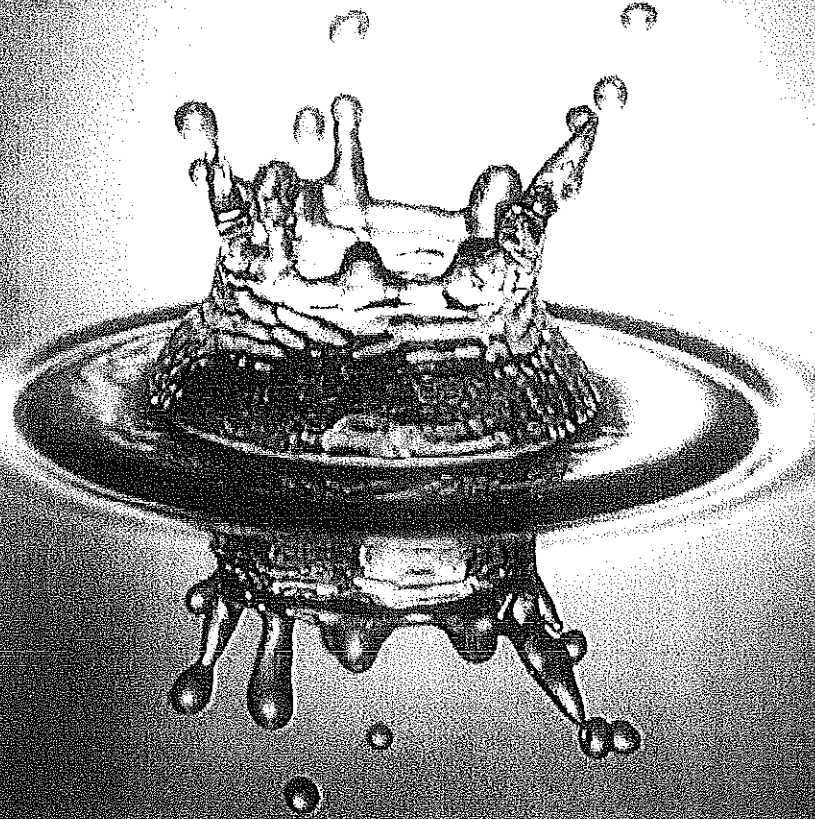
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City of Banning

PROPOSAL:

2015 Urban Water Management Plan Update

Submission Deadline: September 29, 2015 at 5:00PM



Prepared By:



RMP
Risk Management Professionals, Inc.

300 Goddard, Suite 200 ♦ Irvine, California 92618 ♦ 949/282-0123 ♦ www.RMPCorp.com

A. COVER LETTER



Risk Management Professionals

300 Goddard, Suite 200, Irvine, California 92618

Phone: (949) 282-0123 • Fax: (949) 743-2932 • E-mail: info@RMPCorp.com • www.RMPCorp.com

City Clerk's Office

September 29, 2015

City of Banning
City Clerk's Office
99 E. Ramsey Street
P.O. Box 998
Banning, California 92220

Transmittal: 2015 Urban Water Management Plan Update Proposal and Cost Estimate

To whom it may concern,

Please see the attached proposal for updating the 2015 Urban Water Management Plan (UWMP) for the City of Banning ("City"). Please also note the following characteristics that make *Risk Management Professionals* (RMP) uniquely-qualified to create a high-value UWMP update for the Authority.

- RMP is an engineering consulting firm that has been supporting California facilities since 1995 and UWMP Development/Updates since 2005.
- Members of the RMP Team assigned to the 2015 UWMP Updates have been supporting UWMP creation since 2005. Team members are primarily engineers and include an Environmental Engineer with a Master's Degree and specific geotechnical and groundwater experience.
- The California Department of Water Resources (DWR) has accepted 100% of all RMP-submitted UWMPs. RMP's UWMP strategy is to ensure that the UWMP is tailored to each city's specific needs to maximize its value in ongoing Water Conservation Planning.
- RMP's support of a wide-spectrum of water system safety, security, and environmental programs (e.g., California Accidental Release Prevention [CalARP], Security Vulnerability Assessment [SVA], Sewer System Management Plan [SSMP]) provides the Project Team with a unique perspective on each agency's UWMP.
- RMP has an active outreach program that includes UWMP Webinars aimed at dissemination of technology and keeping agencies informed of regulatory developments.
- RMP maintains an UWMP webpage (<http://www.RMPCorp.com/UWMP>) that identifies regulatory developments, as well as providing additional background regarding our experience and capabilities.

Please note that this proposal is valid for ninety (90) days from the date on this letter.

On behalf of RMP, thank you for considering the RMP Project Team during the selection process. Please feel free to contact me at (949) 282-0123 extension 233, or e-mail UWMP@RMPCorp.com regarding any questions or comments.

Sincerely,

Timothy Lee
Project Engineer
Risk Management Professionals, Inc.
300 Goddard, Suite 200, Irvine, California 92618
Email: Tim.Lee@RMPCorp.com
Phone: (949) 282-0123 ext. 233

B. QUALIFICATIONS OF FIRM/PROJECT TEAM

QUALIFICATIONS OF FIRM/PROJECT TEAM



RMP is an Orange County-based engineering consultancy specializing in Urban Water Management Plans (UWMPs), SSMPs, Hazard Mitigation Plans (HMPs), Emergency Response Plans (ERPs), Emergency Operations Plans, Training in the National Incident Management System (NIMS) and Incident Command System (ICS), Emergency Drill Coordination, Process Safety Management (PSM) Programs, Risk Management Plans, Compliance Audits, SVAs, Recycled Water Management Plans, California Urban Water Conservation Council (CUWCC) Best Management Practice (BMP) Reports, and Groundwater Monitoring Plans. Since its formation in 1995, RMP has established an extensive experience base and applied its expertise to a wide-spectrum of clients, including water agencies and wastewater treatment plants. RMP has been at the forefront of the application of water system planning by providing industry advice and sharing practical experiences through broadcasting platforms such as webinars and outreach seminars, as well as actively maintaining a shared knowledge base intended to track and follow the latest regulatory changes and news.

The Project Team collectively has managed projects for more than 50 water agencies, including UWMP updates since 2005 for more than 10 water agencies and municipalities per cycle. RMP has consistently produced successful and effective UWMPs as evidenced in previous UWMP projects and experience, noted below.

Water System Project Experience – RMP recognizes the importance of a reliable, consistent water supply, and has developed numerous plans devoted to evaluating and protecting water infrastructure.

The development of these plans included many elements contributory to the proposed UWMP update. The fundamental basis for the update/development of an effective UWMP is an in-depth understanding of the specific water infrastructure involved in the evaluation. Applicable experience and skills that RMP will contribute to the UWMP include:

- Efficient collection of large volumes of statistical data
- Coordination with external agencies and retailers
- Familiarity and engineering experience with a wide range of water system designs
- System reliability assessments
- Water system technical expertise with both small water agencies and multi-jurisdictional water agencies utilizing the following treatment and water conservation technologies:
 - Desalination
 - Brackish water treatment

- o Chlorination disinfection
- o Chloramine disinfection
- o Reverse osmosis
- o Ultraviolet and ozone disinfection

Public Participation – RMP has extensive experience in planning, organizing, and coordinating public participation events for various types of projects. RMP has also been directly involved as presenters of 2010 and 2005 UWMPs at public hearings for UWMP adoption for numerous water agencies and municipalities.

In addition, the company has encapsulated its experience in working with the public in the book: "Practical Guide to Risk Management Communications". RMP has also authored the California Office of Emergency Services Guidebook on Risk Communications.

Service & Flexibility – RMP recognizes that successful projects result from the combined expertise of its staff and client involvement. At RMP, client input is one of the cornerstones of project success. Moreover, RMP has a dedicated Information Security Plan to ensure the integrity and protection of client data. The company strives to ensure that its products and services are seamlessly aligned with client needs, and where appropriate, team members are happy to discuss mechanisms for maximizing value and reducing cost by varying task scope or through direct involvement of the City staff.

Project Management – RMP has well-defined, rigorous procedures for project management to ensure that quality products are produced on-time and within budget. These techniques have been developed and refined over the company's 20-year history and contribute to its success and reputation. Key elements of the team's management approach include the following.

- Emphasis on communication with the client and within the project team;
- Emphasis on quality and technically accurate products;
- Key senior staff involvement at all project stages;
- Dedicated project personnel to ensure quality assurance and quality control;
- Routine comparisons of planned versus actual budget and schedule to ensure project deadlines are met and any contingencies are accounted for.

Urban Water Management Plan and Best Management Practice Reporting

RMP has developed and coordinated numerous UWMPs, which included water supply and demand projections and assessments of water supply reliability during normal, dry, and multiple-dry years. In addition, the Plans emphasized water conservation, monitored the implementation of Demand

Management Measures (DMMs), described planned water supply programs, investigated opportunities for utilizing recycled or desalinated water, and included extensive public participation and agency coordination.

RMP evaluated and modeled the sufficiency of the sources utilized by the urban water suppliers (e.g., groundwater, wholesale) and worked extensively with local stakeholders to ensure the UWMPs were synchronized with regional and local plans.

RMP has also assisted urban water suppliers with the submittal of BMP status reports to the CUWCC. This included the evaluations and calculations associated with the following BMPs.

- Water survey programs for single-family and multi-family residential customers
- Residential plumbing retrofit
- System water audits, leak detection and repair
- Metering with commodity rates for all new connections and retrofit of existing connections
- Large landscape conservation programs and incentives
- High-efficiency clothes washing machine financial incentive programs
- Public information programs
- School education programs
- Conservation programs for Commercial, Industrial, and Institutional (CII) accounts
- Wholesale Agency assistance programs
- Retail conservation pricing
- Conservation coordinator
- Water waste prohibition
- Residential Ultra Low-Flush Toilet (ULFT) replacement programs

As part of these evaluations, RMP provided assistance in the development and implementation of DMMs to meet demands and address water shortage requirements.

Recycled Water Management Plan and Sewer System Management Plan

Analogous to UWMP development efforts, RMP has developed programs to ensure that recycled water is used in accordance with the State Water Resources Control Board Order 2009-0006-DWQ, Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water (SWRCB Order 2009-0006-DWQ), and the State of California Water Reclamation Criteria (Title 22), which is administered by the California Department of Public Health (CDPH). This program is designed to manage and maximize the use of recycled water to utilize resources easily available within the City. As part of this objective, RMP

developed documentation to fulfill the Operation and Maintenance (O&M) Plan requirements of SWRCB Order 2009-0006-DWQ, which contains the following elements.

- O&M Plan
- Irrigation Management Plan
- Title 22 Engineering Report
- Design and Construction Rules and Regulations
- Recycled Water Use Agreement
- Recycled Water Use Supervisor Responsibilities and Training

The development of the O&M Plan element of the plan included an overview of the recycled water system and equipment, cross-connection control program and auditing, signage requirements, and a description of use area operations. Additionally, this portion of the plan included an evaluation of compliance with the required and recommended BMPs for recycled water use.

As part of the Irrigation Management Plan element of the plan, RMP developed Water Use Budgets that accounted for the soil conditions, climatic conditions, recycled water characteristics, and the use requirements of the species irrigated. The United States Environmental Protection Agency's (USEPA's) WaterSense Water Budget Tool was used to estimate the agronomic application rate. This tool is also utilized in the implementation of water use budgets for large landscape areas as part of the UWMP development.

Additionally, RMP has developed SSMPs as part of a state-mandated requirement for California public collection system agencies that own or operate sanitary sewer systems greater than one mile in length. The goal for these plans is to reduce Sanitary Sewer Overflow, protect public health and environment and improve the overall maintenance and management of sewer systems including neighborhood lift stations. The SSMP included the following elements.

- Goals
- Organization
- Legal Authority
- O&M Program
- Design and Construction Standards
- Overflow Emergency Response Plan
- Fats, Oils, and Grease (FOG) Control Program
- System Evaluation and Capacity Assurance

- Monitoring, Measuring and Program Modifications
- SSMP Audits
- Communication Program

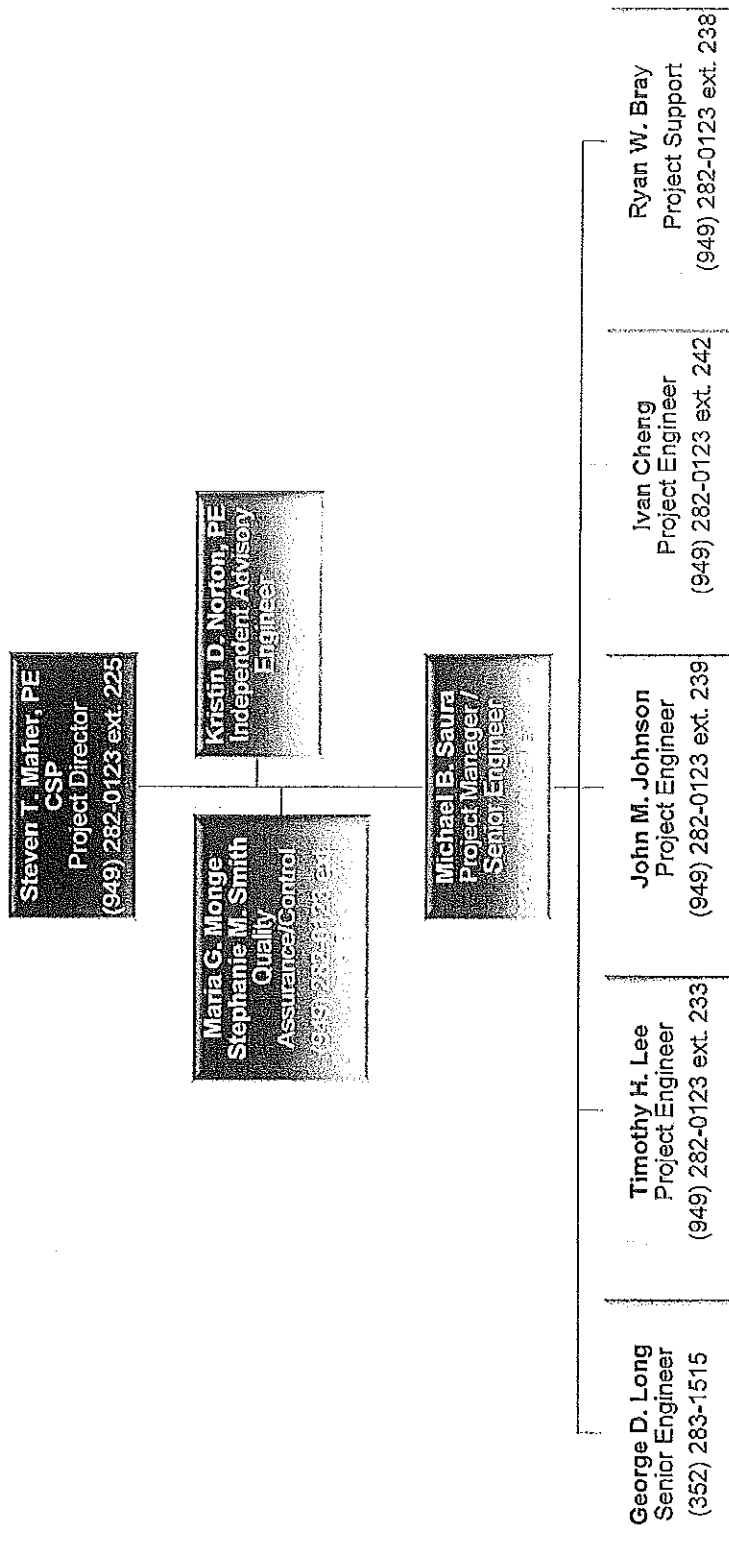
The SSMP is similar to the UWMP in that it requires the agency to develop strategies to provide continuous service and minimize potential hazards to the public.

Project Team

The Project Team includes engineering professionals who have extensive experience developing planning documentation for water and wastewater agencies, including UWMPs, SSMPs, Recycled Water Management Plans, Groundwater Monitoring Plans, ERPs, SVAs, Emergency Operations Plans, Training in NIMS and ICS, Emergency Drill Coordination, PSM Programs, Risk Management Plans, and Compliance Audits, as well as comprehensive grant applications. Resumes for all Project Team members dedicated to this project can be found in Attachment A of this proposal. These resumes can identify significant additional accomplishments which would further demonstrate this Project Team as a leader in the development of UWMPs.

The Project Team, as depicted below in the organization chart, is functionally organized to address the activities needed to achieve the City's project objectives. This team approach will ensure that the assigned tasks are conducted with the highest quality standards using state-of-the-art tools and methodologies.

Mr. Steve Maher, PE CSP will serve as Project Director, and will be responsible for overall operations of the project, ensuring the team's resources are adequately allocated to the project. **Ms. Maria Monge** will provide quality assurance/control and documentation reviews. **Ms. Stephanie Smith** will provide backup for Ms. Monge for quality assurance/control and documentation reviews, as well as provide overall support for the project. **Ms. Kristin Norton, PE** will serve as a Project Advisor based on fifteen (15) years of UWMP experience and will be responsible for Plan review and ensuring overall Plan compliance. **Mr. Michael Saura** will serve as the Project Manager and the primary contact on project administrative matters, and maintain correspondence with City personnel. He will also be responsible for the delivery of services in accordance with the established scope of work. **Mr. George Long, Mr. Timothy Lee, Mr. John Johnson, Mr. Ivan Cheng, and Mr. Ryan Bray** are key personnel that will provide technical support for project completion. Quality control will be provided by a cross-review of key project deliverables and will be the responsibility of the Project Manager, the Quality Assurance/Control personnel, and the individual task participants. Additional project work will be conducted under direct supervision of the aforementioned managers. Support services will be the responsibility of the managers and project engineers.



C. REFERENCES

C. REFERENCES

RMP has diverse experience working with over 50 water agencies, cities, districts, municipalities, and counties. These relationships will allow the Project Team to efficiently update the City's existing UWMP.

RMP has selected the following 2010 UWMP references for the Risk Management Professionals's convenience. The RMP Project Team previously developed the UWMPs for the agencies/cities, listed below, that were successful in complying with the 2010 planning requirements within the acceptable deadline and with minimal comments from the DWR. Key RMP personnel involved in the 2010 UWMP updates are shown in the tables below.

Table C-1: Key RMP Personnel Involved During 2010 UWMP Updates

Project Member(s)	Member Title	Function Performed
Steven T. Maher, PE CSP	Project Director	Project Coordination
Kristin D. Norton	Senior Engineer/Project Manager	Project Management
George D. Long, Senem Surmeli, Carlos Cheek, Michael Saura	Project Engineer	Supply Source Descriptions and Calculations
Judith Sicairos, Matthias Braedel, Juliana Townsend	Project Engineer	Demand Projections and Reliability Calculations
Ken Hufford, Casey Sbicca	Project Engineer	Conservation Strategies and Contingency Planning
Maria G. Monge, Ester M. Brawley	Quality Engineer	Quality Assurance & Agency Coordination

Table C-2: Reference List of Completed 2010 UWMP Update Projects

Agency/City	Primary Contact/ Email	Telephone No.	Contract Dollar Amount	Key RMP Personnel
City of Morgan Hill	Anthony Eulo Anthony.Eulo@morganhill.ca.gov	(408) 778-6480	\$40,000	Steve Maher, Kristin Norton, George Long, Michael Saura, Maria Monge
City of Paramount	Sarah Ho SHo@paramountcity.com	(562) 220-2157	\$25,000	Steve Maher, Kristin Norton, George Long, Michael Saura, Maria Monge
City of Compton	Alex Santos ASantos@comptoncity.org	(310) 605-6240	\$25,000	Steve Maher, Kristin Norton, George Long, Michael Saura, Maria Monge
Triunfo Sanitation District / Oak Park Water District	Scott Quady ScottQuady@vrsl.com	(805) 658-4658	\$20,000	Steve Maher, Kristin Norton, George Long, Michael Saura, Maria Monge
City of El Segundo	Lifan Xu lxu@elsegundo.org	(310) 524-2368	\$25,000	Steve Maher, Kristin Norton, George Long, Michael Saura, Maria Monge
City of Huntington Park	Christina Dixon CDixon@hpcga.gov	(323) 584-6323	\$25,000	Steve Maher, Kristin Norton, George Long, Michael Saura, Maria Monge

D. STRATEGY AND IMPLEMENTATION OF PLAN

D. STRATEGY AND IMPLEMENTATION OF PLAN

As part of the proposed project scope, RMP will prepare an UWMP update for the City in accordance with the applicable regulations (including recent and anticipated changes for the 2015 cycle) and guidance documents: the Urban Water Management Planning Act ("Act"); the 2015 Urban Water Management Planning Worksheets; the 2015 Urban Water Management Plan Demand Management Measures Worksheets; Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use; and the 2015 UWMP Guidebook developed by the California DWR. The UWMP will address water conservation efforts the City has undertaken and will incorporate these changes into the water supply calculations. The UWMP will also implement necessary provisions of Senate Bill X7-7, requiring a twenty percent per capita urban water use reduction by December 31, 2020. These provisions include determining the City's baseline daily per capita water use through a method approved in the Guidebooks, and determining the interim and final water use targets to ensure per capita reduction of twenty percent by December 31, 2020. The UWMP will address changes in the documentation of the DMMs in accordance with the new regulations, quantify distribution system water loss utilizing methodology as provided by the latest 2015 UWMP Guidebook, and provide a description of distribution system asset management programs.

Narrative Description of Project

Experienced RMP Team Members will diligently prepare an efficient, cost-effective, and accurate UWMP Update for the City. RMP will implement the updated 2015 California DWR Guidebook recommended methodologies (updated version to be released in mid-October 2015) to complete the UWMP and ensure that all tables on the DWR Worksheets are addressed and completed.

After collecting the information, the Project Team will conduct additional research and thoroughly review the provided documentation, including, but not limited to, the following: City of Banning 2010 UWMP, Highland Springs Conference and Training Center, *Petitioner v. City of Banning, Respondent*, SCC/Black Bench, LLC, *Real Party* and all consolidated cases RIC 460950, RIC 461035, RIC 461069, and new DWR requirements. Since water supply infrastructure is a complicated network of interconnected water agencies, extensive coordination with regional and wholesale agencies is necessary to ensure that important information is exchanged and documents are reviewed by all interested parties.

The water service reliability assessment will be developed by comparing the projected supply and demand over the next twenty years, in five-year increments. This comparison will be completed for normal, single-dry, and multiple-dry water years to plan and prepare for realistic water supply scenarios. In addition, factors resulting in inconsistent supply (i.e., water quality, climate, legal, and environmental) will be identified and described. The water service reliability assessment will identify any gaps between the projected demand and the availability of water to meet that demand. RMP will describe any current or planned water supply projects that will increase

the City's water supply to meet the growing demands, including any desalination, recycled water, and transfer or exchange opportunities.

In addition, the Water Shortage Contingency Plan will address the stages of action during a potential water shortage and the associated consumption reduction methods, penalties, and monitoring procedures. The Project Team will also address supply shortages due to catastrophic incidents (i.e., earthquake, regional power outage, and terrorism) and the steps that will be taken to economically recover from the incident.

Towards the conclusion of the project, draft copies of the 2015 UWMP Update Report will be developed and undergo a thorough quality control review process by the Project Team prior to distribution of the draft report copies to the City.

Issues of Special Concern

It is imperative to understand and address any issues or special concerns that may affect the City's vital water supply. The introduction of Senate Bill 610: Water Supply Assessments and Senate Bill 221: Written Verifications of Water Supply placed a much greater emphasis on developing an UWMP that will provide the basis for growth within the City's service area by ensuring an adequate water supply for proposed developments. RMP acknowledges the need to pay close attention to the projected growth and associated demands, as well as the projected availability of the water supply and will update the UWMP to reflect the concerns associated with the aforementioned Senate Bills.

Additionally, in light of the California 20x2020 Water Conservation Plan finalized in 2010 and the supporting legislation passed in November 2009 (Senate Bill X7-7), the City will be required to update the UWMP to provide baseline data and implement strategies to meet the twenty percent reduction in water use by 2020. RMP will work closely with the City to meet these requirements.

Project Management

RMP has well-defined, rigorous procedures for project management to ensure that quality products are produced on-time and within budget. These techniques have been developed and refined over its 20-year history and contribute to our success and reputation. Key elements of the firm's management approach include:

- Emphasis on communication with the client and within the project team;
- Emphasis on quality;
- Key senior staff involvement at all project stages;
- Periodic comparisons of planned versus actual budget and schedule; and

The following meetings shall be facilitated to startup and support the project:

Kick-off Meeting

The Project Team will kick-off the project with a meeting to discuss the project timeline, scope, and the implementation of the 2015 UWMP. This meeting will also serve as a mechanism to collect information and to verify the accuracy of existing information.

Progress Meetings

Progress Meetings will be routinely held with the City representatives and key members of the Project Team at relevant intervals (assumed nine meetings). This would involve periodic comparisons of planned versus actual budget, schedule, and updates.

Review Background Information and Relevant Data in Support of the Project

The Project Team will review pertinent documents and determine the City's current resources (e.g., maps, reports, general and specific plans such as: existing UWMP, Water Supply Assessment, equipment, water supply, billing records, and demographic information). Furthermore, the Project Team will discuss and describe existing water management tools and options that are used to maximize resources and meet projected demands.

Plan Preparation and Contents

The UWMPs will contain the following information, as broken down by sections below.

Preliminary Work

RMP will facilitate a kickoff meeting intended to collect data from the City representatives to discuss and prepare the UWMP. At the conclusion of this meeting, RMP shall formalize a technical memorandum, in the form of an information request sheet, identifying all items needed to adequately perform the UWMP update. RMP will also provide the City with a detailed schedule (i.e., Gantt Chart) to help identify all key dates and milestones anticipated during the duration of the project. It will also include references made to other relevant documents to prepare the UWMP.

Demand Analysis

The 2015 UWMP will update the existing water demand analyses to reflect demands through 2040, and will reflect adopted General Plan population changes, changes in water use and savings from current and future water conservation ordinances/measures. RMP will review existing documentation and data for demand from previous years and existing demand factors, and utilize this data to update demand projections, demand factors, and determine consumption by customer class, as well as analyze indoor and outdoor water use.

The water demand projections will be defined using a model that is acceptable to the City. Furthermore, baseline demand projections will be calculated and incorporate potential residual impacts of current and anticipated CALGreen Codes and appliance/fixture standards in place.

System Description

The UWMP will include a complete description of the water collection and distribution system for the City. It will include a description of the climate, population, demographics, as well as the physical system. The physical description will be based on information as well as maps and drawings provided by the City.

System Demands by Customer Class

The UWMP will discuss a variety of demographic and financial factors which may affect water use supplied by the City including, but not limited to:

- Current and projected population (projected in five-year increments from 2020 to 2040) level and density
- Annual total production and consumption of water by customer class (e.g., residential, industrial, commercials, etc.)
- Unit water demands for each major user, as well as indoor and outdoor water use
- Climate characteristics based on the last 30 years' information on the National Oceanic and Atmospheric Administration (NOAA) website and California Irrigation Management Information System (CIMIS) website, including standard monthly average of rainfall, temperature, and the evapotranspiration rate
- Housing density
- Future commercial and industrial development

Water billing data gathered from the City will be reviewed in order to determine the water demand factors associated with each customer type/class and perform a water demand analysis.

In addition, the UWMP will address distribution system water losses by the City over the course of the most recent 12-month period and reporting will be conducted based on the American Water Works Association water system balance methodology. If applicable and adequate information is provided by the City, the estimated water savings will be accounted for as part of the water use projection values.

This task will also include discussions regarding existing potable and non-potable water demands, future potable and non-potable water demands for 10 year, 20 year, and buildout, low income household demands, baselines and targets of 2010 UWMP GPCD, and water use reduction plans.

System Supplies

The UWMP will include a description of the reliability, or the vulnerability, of the water supplies to seasonal or climatic shortage. This description will include the following:

- All supply sources for the City, that may include groundwater, desalinated water, recycled water, purchased, transferred, or exchanged water, as well as any other identified sources.
- Identification of factors resulting in inconsistency of supply (e.g., legal, environmental, water quality, climatic).
- If applicable, for water provided by wholesalers (including emergency connections), the City will obtain the written information provided by these agencies, including the reliability of the wholesale supplies.

Water Supply Reliability/ Water Shortage Contingency Planning

The Project Team will quantify each supply identified in Acre-Feet per Year (AFY) for the determined normal year, single-dry year, and the multiple-dry year period, and coordinate with the City's staff to determine the basis of water year data to be used for normal water year, single-dry year, and multiple-dry year periods. The UWMP will identify of factors resulting in inconsistency of supply (e.g., legal, environmental, water quality, climatic), and describe plans, if any, to supplement or replace inconsistent water sources with alternative sources.

The objective of this task is to discuss the urban water shortage contingency that helps to control water consumption in the City's service area during a water supply shortage. The 2015 UWMP update will include an urban water shortage contingency analysis, which includes the following sub-tasks.

Stages of Action

The UWMP update will include the identification of the stages of action (within its authority) that the City will take in response to a water supply shortage. One of these stages will be designed to address a 50 percent reduction in water supply. In addition, the specific water supply conditions that trigger activation of each stage of action will also be included.

Estimate of Minimum Supply for Next Three Years

The Project Team will quantify the minimum water supply available during the next three years (from 2016 to 2019) based on the driest three-year historic sequence for the City.

Catastrophic Supply Interruption Plan

The objective of this task is to provide a plan during the event of catastrophic supply interruption in the City's service area. In this task, the Project Team will evaluate the vulnerability of each source and the delivery and distribution systems to events such as earthquakes, regional power outages, system failures, terrorist attack, and other events specific to the City's water sources. In addition, the UWMP will include specific actions designed to minimize the impacts of supply interruption on the service area. RMP has extensive experience evaluating water system vulnerability to each of the aforementioned events through the completion of SVAs and HMPs.

Prohibitions, Penalties, and Consumption Reduction Methods

The following prohibitions, penalties, and consumption reduction methods will be detailed in the UWMP.

- Mandatory prohibitions against specific water use practices during water shortages; including the stage when prohibition becomes mandatory.
- Consumption reduction methods used to reduce water use in the most restrictive stages with up to a 50 percent reduction, including the stage when the method takes effect and the projected reduction associated with the method. Reduction methods often include customer allocations, irrigation limited to certain days, restriction on decorative fountains, refilling swimming pools, etc.
- Excessive use penalties or charges for excessive use and the stage when penalties take effect.

Analysis of Revenue Impact of Reduced Sales during Shortages

The objective of this task is to examine the plan for recovering from the financial impact during shortages. To achieve this objective, the UWMP will describe how the City's planned consumption reduction methods,

penalties, and prohibitions are likely to impact revenues, and how implementing a water shortage program is likely to impact the City's expenditure. In addition, the plan will list proposed measures that the City plans to overcome the financial impacts during the shortages.

Draft Water Shortage Contingency Resolution/Ordinance

The Project Team will review the City's Water Shortage Contingency Ordinance as part of the Water Shortage Contingency Plan.

Reduction Monitoring Procedure

The Project Team will review and update the Reduction Monitoring Procedure, as necessary.

Demand Management Measures

The Act requires that information related to DMMs be provided by water suppliers in their UWMPs. A narrative description that addresses the nature and extent of the seven (7) DMMs must be completed. The seven (7) DMMs that must be addressed are:

1. Water waste prevention ordinances,
2. Metering,
3. Conservation pricing,
4. Public education and outreach,
5. Programs to assess and manage distribution system real loss,
6. Water conservation program coordination and staffing support, and
7. Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

As part of the 2015 UWMP Guidebook update and regulatory changes, RMP will ensure compliance of the methodology in which the DMMs will be presented and documented.

Public and Stakeholder Outreach

The Project Team will be available to assist the City in coordinating with relevant agencies as needed for adoption of the UWMP. The Project Team will also be prepared to attend, present the report, and respond to any questions about the UWMP during public outreach efforts. The City will be responsible for these public outreach efforts. Any comments from the public hearing would be reviewed and incorporated into the adopted Final Draft Report. The Project Team will assist with the submission of the adopted UWMP, and at the City's discretion, complete the UWMP Checklist (Optional Element), and submit the UWMP electronically. RMP will plan for a minimum of two public/stakeholder meetings and a public hearing.

Deliverables

RMP shall deliver six (6) hard copies and an electronic (PDF) copy of the draft 2015 UWMP to the City, as well as regional agencies for comment. RMP shall deliver six (6) hard copies and electronic (Word and PDF) copies of the final 2015 UWMP to the City, as well as the DWR. Any supporting documentation utilized (e.g., Word files, Excel files, GIS files, PDF files, etc.), any documentation detailing any assumptions, documentation

showing how calculations were derived, methodology for unit demand analysis, methodology of service area population, and methodology for residential and non-residential growth will be provided to the City upon completion of the UWMP.

UWMP Submittal

RMP will complete the submittal of the City's 2015 UWMP update to the DWR, the California State Library, and any county within which the City provides water supplies.

Climate Change (OPTIONAL ELEMENT)

Although not specifically included as a mandatory requirement in the Act, if the City opts to perform the optional element, RMP will address the potential impacts of climate change on the City's water system for the 2015 UWMP Update. It is noted that "inclusion of potential climate change impacts in a water supply planning document is consistent with other water supply programs and environmental requirements being implemented in California". The following topics will be covered within this section:

- General Overview of Climate Change
- Effects of Climate Change
- Minimizing the Effects of Climate Change

Energy Intensity (OPTIONAL ELEMENT)

Although not specifically included as a mandatory requirement in the Act, if the City opts to perform the optional element, RMP may include within the UWMP, the estimated amount energy consumed and demanded by the water system associated with the following water-related processes: extraction/diversion of water supplies, conveyance of water supplies to various water treatment plants or distribution systems, treatment of water supplies, distribution of water supplies through its water distribution systems, treatment of water supplies in comparison to the non-treated water supplies, placement/storage of water, and any other energy-related water processes. The methodology for estimating the energy intensity of the system will be provided as part of the upcoming 2015 UWMP Guidebook.

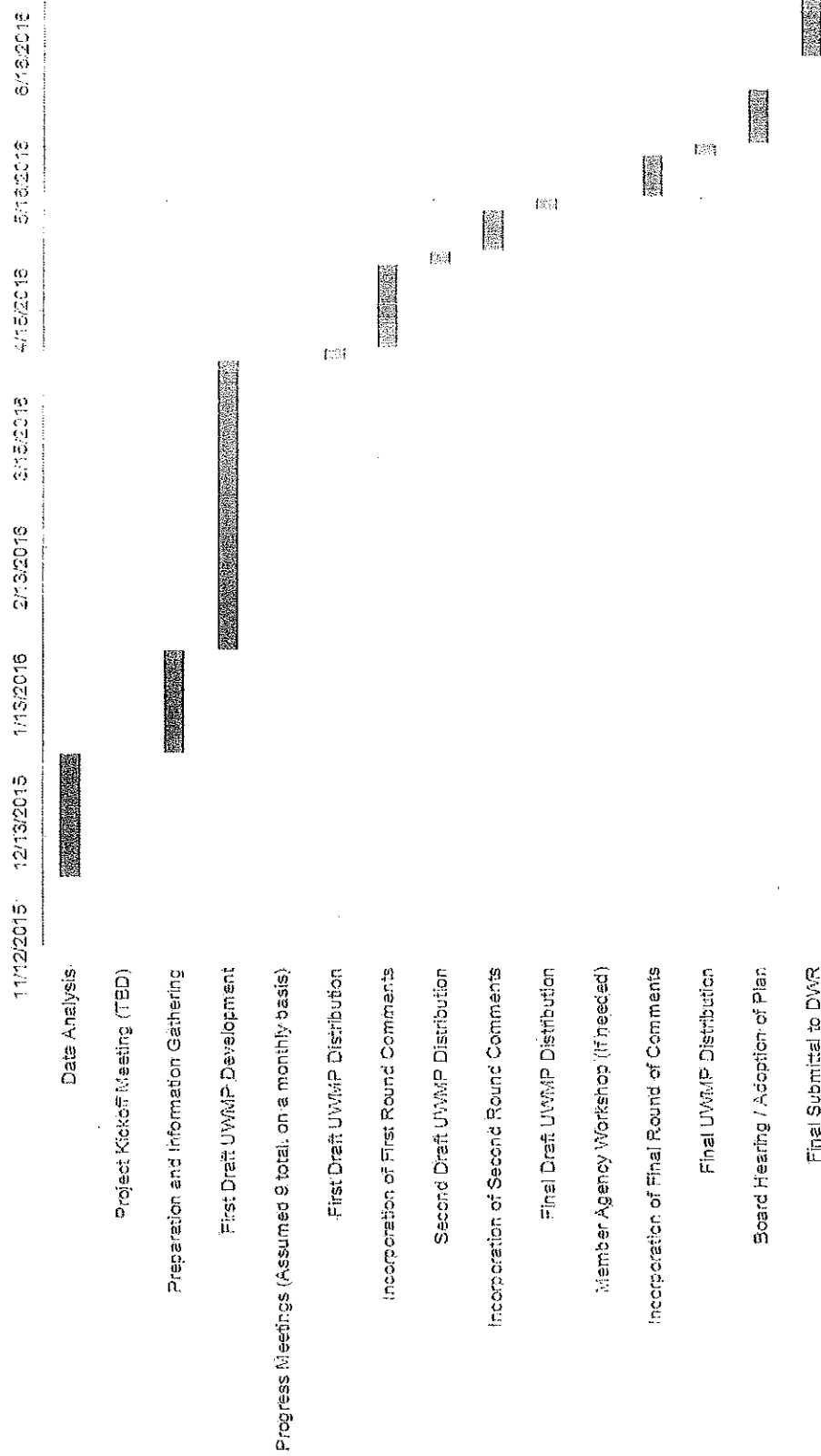
Project Schedule and Proposed Gantt Chart

The following Table D-1 and Figure 1 depict a tentative timeline for the expected target dates, as provided by the City, and the submission deadline to the DWR by July 1, 2016. An anticipated release of the UWMP Guidebook in mid-October 2015 is also incorporated into schedule. Dates may be amended to meet the needs of the City.

Table D-4: City of Banning 2015 UWMP Proposed Project Schedule

City of Banning - 2015 UWMP Update Schedule (Tentative)			
Task	Start Date	End Date	Duration
Data Analysis	11/30/2015	12/30/2015	30
Project Kickoff Meeting (TBD)	TBD	TBD	1
Preparation and Information Gathering	12/30/2015	1/24/2016	25
First Draft UWMP Development	1/24/2016	4/3/2016	70
Progress Meetings (Assumed 9 total, on a monthly basis)	TBD	TBD	9
First Draft UWMP Distribution	4/3/2016	4/6/2016	3
Incorporation of First Round Comments	4/6/2016	4/26/2016	20
Second Draft UWMP Distribution	4/26/2016	4/29/2016	3
Incorporation of Second Round Comments	4/29/2016	5/9/2016	10
Final Draft UWMP Distribution	5/9/2016	5/12/2016	3
Member Agency Workshop (If needed)	TBD	TBD	1
Incorporation of Final Round of Comments	5/12/2016	5/22/2016	10
Final UWMP Distribution	5/22/2016	5/25/2016	3
Board Hearing / Adoption of Plan	5/25/2016	6/7/2016	13
Final Submittal to DWR	6/15/2016	7/1/2016	16

Figure 1: City of Banning 2015 UWMP Proposed Project Timeline



E. PROPOSED QUALITY ASSURANCE PROGRAM (QA/QC)

E. PROPOSED QUALITY ASSURANCE PROGRAM

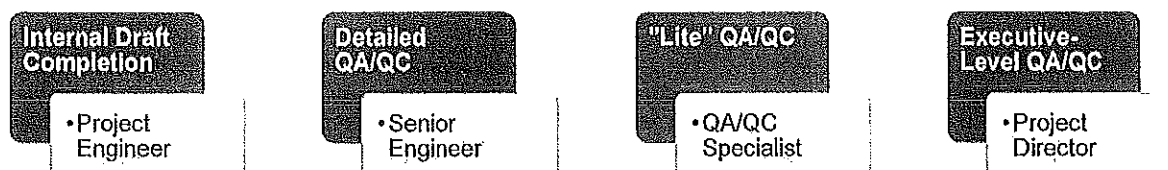
RMP has established a Quality Assurance Program (QAP) in order to ensure only the highest quality products are delivered to the City. RMP continues to hold high standards of quality for all projects that also incorporates the timeliness of a product deliverable involving continuous monitoring of the current progress status and comparisons against the proposed timeline to ensure all City/regulatory deadlines are met while minimizing contingency. The QAP aims to ensure that project deliverables meet all applicable regulatory requirements, standards, and best practices. Designated personnel performing Quality Assurance/Quality Control (QA/QC) must ensure that the products and services meet or exceed City expectations. To further improve the QAP employed at RMP, it is the responsibility of the QA/QC personnel to ensure that the efforts exerted during the QA/QC process continue to yield tangible results in the most time-effective manner.

QC relies on the fundamental assumptions that:

- Product quality is validated through means of reviewing and monitoring all project-related work activities with a mutual understanding of project scope, requirements, motives, and deadlines;
- Quality control is an ongoing, inherent element adhered to, as part of each product development stage, and constant monitoring is performed,
- Only qualified individuals, who have demonstrated excellence in their field, perform project duties;
- The designated Project Manager assigns qualified personnel to ensure QC is conducted with a high level of scrutiny, in a timely manner.

The QAP employed at RMP consists of a hierarchy of QA methods intended to provide disciplinary focus to certain areas of a product or service and to distill the most valuable input, thus bypassing unnecessary administrative overhead time and effort.

A typical QA/QC conducted for a UWMP is depicted in the flowchart below.



ATTACHMENT A. KEY PERSONNEL RESUMES

Steven T. Maher, PE CSP

PROFESSIONAL HISTORY:

Risk Management Professionals, Inc.; Irvine, CA; Principal Engineer; 1995-Present

EQE International, Inc.; Irvine, CA; Technical Manager; 1993-1995

Westinghouse; Pittsburgh, PA; 1980-1993

EDUCATION:

Master of Science, Mechanical Engineering, Carnegie-Mellon University, 1983

Bachelor of Science, Mechanical Engineering, Duke University, 1979

CERTIFICATIONS:

Professional Engineer - Chemical Engineering - California

Professional Engineer - Mechanical Engineering - Pennsylvania

Certified Safety Professional - Systems Safety

Sandia RAM-WSM Methodology Certification

Incident Command System IS-100

National Incident Management System (NIMS) IS-700

National Response Plan (NRP) IS-800

PROFESSIONAL

AFFILIATIONS:

American Institute of Chemical Engineers (AIChE)

American Society of Mechanical Engineers (ASME)

Local Chapter of the Society for Risk Analysis

Refrigerating Engineers and Technicians Association (RETA)

Mr. Maher has over 35 years of experience in safety and regulatory program implementation. For the past 32 years, he has been

RMP

responsible for the project management and technical performance of a broad spectrum of process safety, risk management, security vulnerability assessment, emergency preparedness, Urban Water Management Plan (UWMP), and loss prevention projects for the following systems:

- potable water treatment and distribution systems,
- wastewater treatment and distribution systems,
- chlorination systems,
- anhydrous/aqueous ammonia systems,
- power generation,
- chemical & petroleum.

Mr. Maher has played an active role in "setting the pace" for helping industry address regulatory requirements that apply to water and wastewater facilities. These activities have included serving on prestigious guideline development and best practices steering committees, such as the Center for Chemical Process Safety (CCPS). Mr. Maher also authored one of the sections in the "LEPC Region I - California Accidental Release Prevention Program (CalARP) - Implementation Guidance Document".

Mr. Maher is actively involved in the development and implementation of key safety and security programs that apply to water and wastewater facilities. He has published and presented numerous technical papers, a list of which can be provided upon request. He has authored/co-authored books and technical manuals/guidebooks, and has frequently been an invited speaker at the annual CalCUPA Conference.

Kristin D. Norton, PE CFSE

PROFESSIONAL HISTORY:

Risk Management Professionals, Inc.;
Irvine, California; Senior Engineer;
2007-Present.

Risk Management Professionals, Inc.;
Mission Viejo, California;
Engineering Technical Specialist;
2002-2007.

EDUCATION:

*Mechanical Engineering, Bachelor of
Science, University of Southern
California, Los Angeles.*

CERTIFICATION:

*Professional Engineer – Mechanical
Engineering – California*

*Certified Functional Safety Expert
(CFSE)*

*Exida Functional Safety I&II, SIL
Verification Training*

*Chevron CVX-SIS-201 SIS
Engineering 1 Certified*

*Chevron CVX-SIS-202 Safety
Objective Analysis / Safety
System Function Analysis for
Facilitators Certified*

*Chevron RiskMan2 Major Hazards
Facilitation Certified*

*Sandia Risk Assessment
Methodology for Water Utilities
(RAM-WSM) Certified*

*FEMA Incident Command System
(ICS-100 & ICS-200)*

*National Incident Management
System (IS-700) Certified*

PROFESSIONAL AFFILIATIONS:

*American Institute of Chemical
Engineers (AIChE)*

*Southern California Society for Risk
Analysis (SCSRA) – Past
President and Current Council
Member*

Ms. Kristin D. Norton is an
Independent Advisory Engineer
for Risk Management
Professionals, and, as such,



provides detailed project management and oversight, as
well as technical guidance to various Project Teams.

Ms. Norton has experience managing significant projects
and understands the necessary planning to coordinate
large, involved projects and has extensive experience
establishing and maintaining schedules, closely
monitoring project progress and budgets, and
implementing the formal quality control and security
program.

Ms. Norton's Urban Water Management Plan (UWMP)
experience incorporates the 2005 and 2010 update
years for potable water suppliers in the state of
California. Ms. Norton has been involved with the
calculations for water use projections, water supply and
demand for single dry and multiple dry years, as well as
assessments of the economic feasibility of water the
conservation programs, among many other elements, to
ensure that the plans met all requirements established
by the California Department of Water Resources.

Ms. Norton has assisted in the development of Spill
Prevention Control and Countermeasure (SPCC) Plans
and had presented an overview presentation at several
workshops providing SPCC outreach to facilities that are
required to comply with the rule. She has also written a
paper on this subject that was presented to the
Manufacturers Council of the Central Valley

Ms. Norton has developed Emergency Response Plans
(ERPs), which include specific security, operational, and

natural hazard emergency scenarios, while coordinating a response that is consistent with Incident Command System (ICS) specifications to allow for a smooth interface with the operations of the emergency response agency.

Ms. Norton has conducted Chemical Facility Anti-Terrorism Standards (CFATS) submittals and Security Vulnerability Assessments (SVAs) in accordance with the requirements set forth by the Department of Homeland Security CFATS. Additionally, Ms. Norton has developed Site Security Plans and Department of Transportation Security Plans.

Ms. Norton's project experience is extensive throughout all product lines offered by Risk Management Professionals, including the following:

- SVAs
- ERPs
- UWMPs
- SPCC Plans
- HAZID/HAZOP Studies
- Layer of Protection Analyses
- SIS Lifecycle Services
- Risk Management Plans/Process Safety Management Programs and Regulatory Compliance Audits
- Quantitative Risk Assessments

While Ms. Norton has experience in diverse product lines, all completed projects have used high-end risk analysis techniques for decision-making and are focused within the following disciplines:

- water treatment and distribution systems / wastewater treatment and collection systems,
- petroleum (production, refining),
- power generation facilities,
- biofuel refining,
- chemical manufacturing,
- refrigeration systems, and
- cogeneration NOx reduction systems.

Michael B. Saura

PROFESSIONAL HISTORY:

Risk Management Professionals, Inc.;
Irvine, California;
Senior Engineer / Group Manager
(2013 – Present)

Risk Management Professionals, Inc.;
Irvine, California;
Project Engineer (2011 – 2013)

STO Design Group, Inc.
Water Systems Project Engineer
(2006-2010)

EDUCATION:

Bachelor of Science, Mechanical
Engineering, University of the
Philippines, Diliman (2006)

CERTIFICATION / TRAINING:

Tesoro LAR Layer of Protection
Analysis (LOPA) Training

Chevron CVX-SIS-201 SIS
Engineering 1

Chevron CVX-SIS-202 Safety
Objective Analysis / Safety System
Function Analysis for Facilitators

Occidental Petroleum Critical
Mitigating Element/Key Mitigating
Element (CME/KME) Methodology
Facilitation Certified

Engineer-in-Training Certificate,
Spring 2009

PUBLICATIONS:

"PSM Challenges for Unregulated
Upstream Facilities," Kristin Norton,
Michael Saura, Colin Scholtz –
Presented at the 9th Global Congress
of Process Safety, San Antonio, TX,
April 29 to May 1, 2013

Mr. Saura has over eight years of engineering experience, four of which are in Water Systems Engineering, and four in Process Safety. Mr. Saura has experience managing significant projects and understands the necessary planning to coordinate these types of projects. He has extensive experience establishing and maintaining schedules, closely monitoring project progress and budgets, while implementing formal quality control. His mechanical and design engineering background, coupled with a strong interest in analyzing processes to find potentially hazardous operations to be eliminated or mitigated, makes Mr. Saura a valuable asset to Risk Management Professionals.

Mr. Saura has the expertise and capabilities to provide excellent project management and technical support to Risk Management Professionals' Project Teams. His broad project experience throughout various product lines shows his experience in various fields and multiple processes and facilities.

Mr. Saura was involved with the design and construction of water systems including water treatment (chemical treatment and mechanical filtration) and water features such as lakes, pools, spas, and water works. His responsibilities include project management of multi-million dollar commercial pool, spa, and water feature design projects throughout the world, fluid dynamics and hydraulics calculations, CAD development of construction drawings, coordination with other

engineering groups, architects and appropriate government entities for design approval and construction.

Mr. Saura has extensive experience assisting in the development of 2010 Urban Water Management Plan (UWMP) updates for potable water suppliers in the state of California. Mr. Saura has been involved with the calculations for water use projections, water supply and demand



for single dry and multiple dry years, as well as assessments of the economic feasibility of water the conservation programs, among many other elements, to ensure that the plans met all requirements established by the California Department of Water.

Mr. Saura has been involved with the development of Spill Prevention Control and Countermeasure (SPCC) Plans, which include site evaluations of a facility's oil storage and spill prevention methods to ensure that the risk of a spill into the environment is minimized.

He has been extensively involved in the development of California Accidental Release Prevention (CalARP), RMP, and Process Safety Management (PSM) Programs for a diverse spectrum of facilities. As a part of these efforts, he has conducted Process Hazard Analyses (PHA) using the Hazard and Operability (HAZOP) and What-if Study methodologies, piping and instrumentation diagram (P&ID) reviews and updates, Offsite Consequence Analyses (OCA), external events analyses, dispersion modeling applications, recommendations review, program development, and United States Environmental Protection Agency (USEPA) and Administering Agency submittals.

Mr. Saura's experience in diverse product lines may be summarized with the following list.

- Water Treatment and Distribution Systems
- Petroleum (Production, Refining)
- Power Generation Facilities
- Gas Processing
- Refrigeration Systems
- LPG Transfer and Storage Facilities
- Agricultural Facilities

George D. Long

PROFESSIONAL HISTORY:

*Risk Management Professionals, Inc.;
Irvine, California; Senior Engineer*

*Applied Research Laboratory of the
Navy, Pennsylvania State
University; University Park,
Pennsylvania; Graduate
Research Assistant*

EDUCATION:

*Master of Science, Biomedical
Engineering, Pennsylvania State
University, University Park,
Pennsylvania*

*Bachelor of Science, Chemical
Engineering, University of Florida*

CERTIFICATION & TRAINING:

*Chevron CVX-SIS-201 SIS
Engineering 1 Certified*

*Chevron CVX-SIS-202 Safety
Objective Analysis / Safety
System Function Analysis for
Facilitators Certified*

*Chevron RiskMan2 Major Hazards
Facilitation Certified*

Oxy Permian PHR / CME Certified

PROFESSIONAL AFFILIATIONS:

*American Institute of Chemical
Engineers (AIChE)*

PUBLICATIONS:

*"Paradigm Shift in the Regulatory
Application of Safety Management
Systems to Offshore Facilities" –
Presented at the 7th Global
Congress on Process Safety,
Chicago, IL, March 13-16, 2011*

Mr. George Long has the
experience, expertise and
capabilities to provide strong
project management and



technical support to Risk Management Professionals' Project Teams. His exceptional analytical and problem-solving skills provide a high level of support for all projects in order to ensure project completion, regulatory compliance, and client satisfaction.

Mr. Long has assisted in the development of Urban Water Management Plans (UWMPs) for potable water suppliers in the state of California during the 2010 update year. These plans include 20-year water supply and demand projections, as well as an assessment of the water supply reliability during normal, dry, and multiple-dry years. In addition, the plans examined the economic feasibility of water conservation programs, described planned water supply programs, investigated opportunities for utilizing recycled or desalinated water, addressed catastrophic supply interruption, and included public participation and neighboring agency coordination. Furthermore, Mr. Long has presented UWMPs at public hearings on behalf of numerous agencies and municipalities during the 2010 cycle. Mr. Long has also presented via a live webinar aimed at providing best practice tips and pointers in early-2011 to assist other agencies and municipalities in developing their UWMPs.

Mr. Long's experience also includes Emergency Response Plan (ERP) development and updates.

These plans include critical emergency response actions that address each scenario associated with security issues separately in terms of activation of a procedure, responsible persons and required tools.

Mr. Long's chemical engineering background, combined with his strong ability and interest in analyzing processes to eliminate or mitigate potentially hazardous operations, makes him a valuable asset to Risk Management Professionals. Mr. Long has been involved in a variety of engineering projects, including work in the following fields:

- Wastewater Treatment Systems
- Chlorination Systems
- Ammonia Refrigeration Systems
- Oil and Gas (Production, Transport, Refining)
- Carbon Capture
- Geothermal Power Generation
- Chemical Production Facilities
- Food Processing

Mr. Long has extensive project experience in the product lines offered by Risk Management Professionals, including:

- Urban Water Management Plans (UWMP)
- Sewer System Management Plans (SSMP)
- Emergency Response Plans (ERP)
- Hazard and Operability (HAZOP) Studies
- BowTie Risk Analysis
- Risk Management Plans (RMP) / Process Safety Management (PSM) Programs
- California Accidental Release Prevention (CalARP) Programs
- Operating Procedures Development
- Toxic and Flammable Gas Dispersion Modeling
- Regulatory Compliance Audit and Support

Maria G. Monge

PROFESSIONAL HISTORY:

*Risk Management Professionals, Inc.;
Irvine, California; Principal
Consultant; 1995-Present*

CERTIFICATIONS:

Incident Command System (ICS) IS-100

National Incident Management System (NIMS) IS-700

National Response Plan (NRP) IS-800

*Sandia RAM-WSM Methodology
Certified*

*Sandia VAM-CFSM Methodology
Certified*

AWWA Tabletop Facilitation Trained

*EPA Emergency Response Planning
Workshop*

PROFESSIONAL AFFILIATIONS:

*Refrigeration Engineers and
Technicians Association, RETA*

*Southern California Society for Risk
Analysis (SCSRA)*

*American Water Works Association
(AWWA)*

*National Association of Female
Executives*

LANGUAGES:

*Spanish - Verbal (Fluent), Reading
(Fluent), Writing (Fluent)*

Ms. Monge has 29 years of experience in the health and safety field. Since 1995, Ms. Monge has been a Principal of

RMP

Risk Management Professionals Inc., which provides general risk management and loss prevention support for industry (e.g., refrigeration, water and wastewater, petroleum [production, refining, and offshore], chemical, power generation, storage, processing, and aerospace).

Ms. Monge has been involved in a variety of activities associated with Security Vulnerability Assessments (SVAs), Emergency Response Plan (ERP) development, process safety, and risk management. Ms. Monge served as the Project Manager for Los Angeles Urban Area (LAUA) Response Plan Development / Assessment Project. She has developed and / or updated over 35 ERPs for water and chemical facilities, was Project Manager for eight (8) SVAs for water systems, and was a key participant in numerous others.

Ms. Monge has been involved in the development/update of SVAs for numerous water facilities at the Tier I, Tier II, and Tier III levels. Ms. Monge supported these projects as a lead team member with a high degree of professionalism. She also has

extensive experience with the organization, development, and production of emergency response plans for wastewater facilities, water districts, ammonia refrigeration facilities, and gas processing facilities.

Ms. Monge has a deep understanding and extensive experience with the development of California Accidental Release Prevention (CalARP), Process Safety Management (PSM), and Risk Management Plan (RMP) Programs for various types of facilities, including water and wastewater chlorination systems. As part of the development of these programs, she has been a key member of teams that have developed, for many clients, Process Safety Information (PSI),

Mechanical Integrity (MI), Process Hazard Analysis (PHA), Off-Site Consequence Analysis (OCA), ERPs, Operating Procedures, Pre-Startup Safety Reviews (PSSRs), Recommendation Tracking, Management of Change (MOC), Compliance Audits, and Piping and Instrumentation Diagrams (P&IDs). The majority of the CalARP/RMP/PSM Program development activities that she has participated in involved facilities in California, Oregon Washington, Texas, Hawaii, New York, Montana, and Arizona. Additionally, Ms. Monge has traveled to the Philippines, Trinidad, Australia, Mexico, and Japan to provide Client support for various Hazard and Operability Studies (HAZOPs) and Layer of Protection Analysis (LOPA)/Safety Integrity Level (SIL) Teams.

Ms. Monge has extensive experience in process safety and risk management. She has also developed Fault Tree Analyses, Facility Prioritization, Facility Characterization, Scenario Identification and Analysis (SIA), and Risk Assessment Programs. Ms. Monge has extensive experience with PHA/HAZOP software packages such as PHAPlus, PHAPro, and PHAWorks.

Ms. Monge's Risk Communication/Public Relations experience along with her organizational skills have been instrumental in organizing several major Workshops, Seminars, community forums, and public meetings. These efforts have included events for Risk Management Professionals, clients, and professional organizations.

Stephanie M. Smith

PROFESSIONAL HISTORY:

*Risk Management Professionals, Inc.,
Irvine, California, Project
Engineer, 2013-Present.*

*AMEC Environment and
Infrastructure, Inc., Irvine,
California, Staff Engineer, 2008-
2013.*

*Geomatrix Consultants, Inc., Newport
Beach, California, Staff Engineer,
2006-2008.*

*Risk Management Professionals, Inc.,
Mission Viejo, California,
Engineering Technical Specialist,
1995-2006.*

EDUCATION:

*Environmental Engineering, Master of
Science, University of Southern
California, Los Angeles,
California.*

*Environmental Engineering, Bachelor
of Science, California Polytechnic
State University, San Luis Obispo,
California.*

CERTIFICATION:

*California Engineer-in-Training
Certification, Civil Engineering.*

TRAINING:

HAZWOPER; 2015.

*Refinery Safety Overview Training,
2015.*

First Aid, CPR, and AED; 2015.

PROFESSIONAL AFFILIATIONS:

*Refrigerating Engineers and
Technicians Association (RETA),
corporate member.*

*RETA Los Angeles Chapter Board
Member; 2015.*

Ms. Stephanie Smith graduated
from California Polytechnic
State University with a Bachelor
of Science degree in



Environmental Engineering and the University of
Southern California with a Master of Science degree in
Environmental Engineering. Ms. Smith specializes in
environmental engineering and process safety
engineering.

Her environmental engineering experience in the
geotechnical and groundwater field includes the
management of groundwater dewatering systems and
inclinometer monitoring for slide stabilization projects for
several projects in the Southern California area. Much
of her operations and maintenance (O&M) management
experience involved reporting to the Los Angeles and
Santa Ana Regional Water Quality Control Boards and
following guidelines and requirements published in
various National Pollutant Discharge Elimination System
(NPDES) permits. She was part of a team that designed
and managed the O&M activities for a soil vapor
extraction (SVE) system in Santa Monica, California, and
has additional experience with several other SVE system
O&M management projects. Her involvement with Spill
Prevention, Control, and Countermeasures (SPCC)
plans has provided a well-rounded approach to her
environmental experience in the area of storm water.
She has participated in underground storage tank
investigations, is knowledgeable in various methods of
well construction and destruction, and has been involved
with Phase I Assessments.

Her process safety experience includes performing updates and providing guidance on the
California Accidental Release Prevention (CalARP) and United States Environmental Protection

Agency's (USEPA's) Risk Management Plan (RMP) Programs; performing updates and providing guidance on the Occupational Safety and Health Administration's (OSHA's) Process Safety Management (PSM) Program; knowledge and providing services in other safety programs (i.e., confined space, fall protection, respiratory protection and Hazardous Waste Operations and Emergency Response [HAZWOPER]); providing training on CalARP, RMP, and/or PSM Programs; conducting Triennial Compliance Audits; conducting Process Hazard Analyses (PHAs)/Hazard Reviews (HRs) and developing a Quantitative Risk Analysis (QRA).

Ms. Smith is an active member of the Refrigerating Engineers and Technicians Association (RETA) through Risk Management Professionals' corporate membership. She also serves on the RETA Los Angeles Chapter Board for the 2015 year.

John M. Johnson

PROFESSIONAL HISTORY:

*Risk Management Professionals, Inc.;
Irvine, California; Senior Engineer
/ Group Manager; 2015-Present*

*Risk Management Professionals, Inc.;
Irvine, California; Project
Engineer; 2013-2015*

EDUCATION:

*Chemical Engineering, Bachelor of
Science, University of California,
Riverside*

*Chemical Engineering, Master of
Science, University of California,
Riverside*

TRAINING:

*Chevron CVX-SIS-201 SIS
Engineering 1 Certified*

*Chevron CVX-SIS-202 Safety
Objective Analysis / Safety
System Function Analysis for
Facilitators Certified*

*Occidental Petroleum Critical
Mitigating Element/Key Mitigating
Element (CME/KME) Methodology
Certified*

PROFESSIONAL AFFILIATIONS:

*American Institute of Chemical
Engineers (AIChE)*

Materials Research Society (MRS)

Mr. John Johnson graduated from University of California, Riverside, with a Master of Science degree in Chemical



Engineering with an emphasis on environmentally benign manufacturing processes. During the course of his education, Mr. Johnson developed technical writing and analytical skills and currently provides technical support to a variety of projects as an Engineering Manager with Risk Management Professionals.

Mr. Johnson has experience in managing California Accidental Release Prevention (CalARP), United States Environmental Protection Agency (USEPA) Risk Management Plan (RMP), and California Occupational Health and Safety (Cal/OSHA) Process Safety Management (PSM) Program projects for municipalities, water treatment facilities, and private industry. His focus for these programs is in chlorine for water agencies.

He has assisted in the development of Hazard Mitigation Plans (HMPs) for several municipalities in the state of California. These plans include a risk assessment of probable hazards, including the estimated frequency of occurrence and extent of impact. In addition, the Plans identified possible mitigation projects and examined the

economic feasibility of the projects through a qualitative cost-benefit analysis. Development of each HMP also included public participation and neighboring agency coordination.

Mr. Johnson understands the significance of the various regulatory elements required for the timely completion of a successful project including the essential planning and monitoring of project progress, the supervision of the project budget, and the necessity of quality control throughout the project. Mr. Johnson's project experience has been vigorous throughout various product lines offered by Risk Management Professionals, including the following:

- CalARP/RMP/PSM Programs

Ivan Cheng

PROFESSIONAL HISTORY:

*Risk Management Professionals, Inc.;
Irvine, California; Project
Engineer; 2013-Present*

EDUCATION:

*Chemical Engineering, Bachelor of
Science, University of California at
Irvine, California*

CERTIFICATIONS:

*Engineer In Training – Chemical
Engineering – State of California*

PROFESSIONAL AFFILIATIONS:

*American Institute of Chemical
Engineers (AIChE)*

Tau Beta Pi (TBP)

Omega Chi Epsilon (OXE)

Mr. Cheng graduated from the
University of California, Irvine
with a Bachelor of Science
degree in Chemical

RMP

Engineering with an emphasis on process safety and
reliability. Since joining Risk Management
Professionals, Mr. Cheng has conducted activities
related to the California Accidental Release Prevention
(CalARP), United States Environmental Protection
Agency (USEPA) Risk Management Plan (RMP), and
California Occupational Safety and Health
Administration (Cal/OSHA) Process Safety
Management (PSM) Programs. He has excelled in
projects with municipalities, water treatment facilities,
and private industry. This involvement has given him

additional perspective and experience in safety consulting.

Mr. Cheng has been involved in a variety of engineering projects, including work in the following
fields:

- Wastewater Treatment Systems
- Chlorination Systems
- Ammonia Refrigeration Systems
- Oil and Gas (Production, Transport, Refining)
- Geothermal Power Generation
- Chemical Production Facilities
- Food Processing

Mr. Cheng has been actively involved in the development and implementation of safety programs
for a number of different industries. He has provided support for a wide spectrum of projects
including:

- CalARP/RMP Programs
- PSM Programs
- Process Hazard Analysis (PHA), including Hazard & Operability (HAZOP) Studies
- What-If and Checklist Analysis

- Fire/Explosion Consequence Modeling
- Toxic/Flammable Gas Atmospheric Dispersion Modeling
- Quantitative Risk Analysis (QRA)

Mr. Cheng's chemical engineering background, coupled with his strong interest in analyzing processes to find potentially hazardous operations to be eliminated or mitigated, makes him a valuable asset to Risk Management Professionals and their clients. Mr. Cheng has experience in providing assistance to facilities in maintaining compliance as directed by federal, state, and local regulations.

Timothy H. Lee

PROFESSIONAL HISTORY:

*Risk Management Professionals, Inc.;
Irvine, California; Project
Engineer; 2014-Present*

EDUCATION:

*Bachelor of Science, Chemical
Engineering, University of
California, San Diego*

PROFESSIONAL AFFILIATIONS:

*American Institute of Chemical
Engineers (AIChE)*

Mr. Timothy H. Lee graduated

from the University of
California, San Diego with a
Bachelor of Science degree in

RMP

Chemical Engineering. Since joining Risk Management Professionals, Mr. Lee has been immersed in the Urban Water Management Plan (UWMP) effort for the 2015 updates. With the award of several projects early in the process for the 2015 UWMP updates, he has facilitated several kick-off meetings and managed the information gathering in anticipation for the 2015 UWMP Guidebook

(Guidebook) release planned for mid-October 2015. His current projects include two (2) cities located in the Los Angeles area within the Central Basin Municipal Water District. His experience with other municipalities has enabled him to effectively manage these projects and liaison with many individuals. Mr. Lee presented a webinar in February 2015 in regards to the 2015 UWMP updates and what to expect. He has a follow-up webinar scheduled for October 2015 following the Guidebook release from the California Department of Water Resources.

Mr. Lee has also been involved in multiple aspects of United States Environmental Protection Agency (US EPA) Risk Management Plan (RMP), Occupational Health and Safety Administration (OSHA) Process Safety Management (PSM) Program, and California Accidental Release Prevention (CalARP) Program development. Mr. Lee has led efforts in:

- PSM Programs and their individual elements for municipalities and private industry;
- Process Hazard Analysis (PHA), including Hazard & Operability (HAZOP) Studies and support; and
- Offsite Consequence Analysis (OCA) studies.

While Mr. Lee has experience in diverse product lines, all completed projects have used high-end qualitative and/or quantitative risk analysis techniques for decision-making. He has been involved in a variety of engineering projects across several industries, including the following fields.

- Chlorine Systems
- Aqueous and Anhydrous Ammonia Systems
- Oil and Gas (Production, Transport, Refining)

Ryan W. Bray

PROFESSIONAL HISTORY:

*Risk Management Professionals, Inc.;
Irvine, California; Project
Coordinator; 2013-Present*

*Risk Management Professionals, Inc.;
Irvine, California; Communications
Specialist; 2010-2013*

CERTIFICATIONS:

*Incident Command System (ICS) IS-
100*

Mr. Bray has five (5) years of experience in the health and safety field. Since 2013, Mr. Bray has been a Project

RMP

Coordinator at Risk Management Professionals and has been immersed in multiple aspects of the Federal Emergency Management Agency (FEMA) and the California Governor's Office of Emergency Services (CalOES) Hazard Mitigation Plan (HMP). His exceptional problem-solving and organizational skills

provide a high level of support for all projects in order to ensure project completion, regulatory compliance, and client satisfaction.

HMPs include a risk assessment of probable hazards, including the estimated frequency of occurrence and extent of impact. In addition, the Plans identified possible mitigation projects and examined the economic feasibility of the projects through a qualitative cost-benefit analysis. Development of each Plan also included public participation and neighboring agency coordination. Mr. Bray's extensive HMP experience has focused on:

- City and County Emergency Planning
- Hazard and Risk Assessment
- Benefit-Cost Analysis
- Grant Writing and Applications
- Urban Water Management Planning

While Mr. Bray has experience in diverse product lines, all completed projects have used risk analysis techniques for decision-making. He has provided project coordination and marketing across several industries including the following.

- Municipalities
- Ammonia Refrigeration
- Power Generation Facilities
- Chemical Manufacturing
- Oil & Gas
- Agriculture

Risk Management Professionals, Inc. Cost Summary for the City of Banning 2015 Urban Water Management Plan Update September 29, 2015						
Requested Tasks	Position Hourly Rate	PC \$175	IAE \$160	SE \$150	PE I \$120	Task Cost Total
Project Management						
Project coordination, scheduling, and management	2			6	8	\$2,210
Task 1: Data Collection and Review						
1-1: Research, identify, and review existing data that is available				2	12	\$1,740
Task 2: Agency Coordination / UWMP Development						
2-1: Preliminary Work				2	12	\$1,740
2-2: Demand Analysis				2	12	\$1,740
2-3: System Description				1	8	\$1,110
2-4: System Supplies				2	12	\$1,740
2-5: System Demands by Customer Class				2	12	\$1,740
2-6: Water Supply Reliability/Water Shortage Contingency Planning				4	24	\$3,480
2-7: Demand Management Measures				2	12	\$1,740
Task 3: Meetings and Presentations						
3-1: Project Kick-off Meeting (Assumed 1 meeting, estimated half-day length, includes one-way travel time to the City)				6	6	\$1,620
3-2: Progress Meetings and Final Meeting (Assumed 9 meetings, estimated at 3 hours in length, includes one-way travel time to the City)					45	\$5,400
3-3: Public/Stakeholder Meetings (Assumed 2 meetings, estimated at 4 hours in length, includes preparation and one-way travel time to the City)					18	\$2,160
3-4: UWMP Public Hearing (Assumed 1 meeting, estimated at 4 hours in length, includes preparation of presentation and one-way travel time to the City)				2	12	\$1,740
Task 4: Review, Comment Incorporation, and Plan Adoption						
4-1: Internal Draft Review of UWMP	2	10		2	8	\$3,210
4-2: Incorporation of First Round Comments				1	6	\$870
4-3: Incorporation of Second Round Comments				1	8	\$1,110
4-4: Preparation of Final 2015 UWMP Update				2	6	\$1,020
Subtotal Hours	4	10		37	221	
Subtotal Cost	\$700	\$1,600		\$5,550	\$26,520	
Subtotal Labor Cost						\$34,370
Overhead Fees						
Estimated Travel Costs						\$1,610
Materials, Overhead, and Administrative (MOA) Fee						\$6,119
Total "Not to Exceed" Cost (Excluding Optional Elements)						\$42,099
[OPTIONAL] Additional Recommended Elements						
O-1: Water Supply and Demand Effects Related to Climate Change				2	12	\$1,740
O-2: Calculation of Energy Intensity of System				2	12	\$1,740
O-3: Completed UWMP Checklist					4	\$480
Subtotal Hours	0	0		4	28	
Subtotal Cost	\$0	\$0		\$800	\$3,360	
Subtotal Labor Cost						\$3,960
Overhead Fees						
Estimated Travel Costs						\$0
Materials, Overhead, and Administrative (MOA) Fee (Optional Elements Only)						\$277
Total "Not to Exceed" Cost (Including Optional Elements & Original Cost)						\$46,336
Definitions: PC = Principal Consultant IAE = Independent Advisory Engineer SE = Senior Engineer PE I = Project Engineer I Notes: - The above MOA Fee includes 12 (3") Binders (Drafts: 6 copies, Finals: 6 copies) - Risk Management Professionals provides electronic files to the client, including MS Word, PDF, MS Excel, and GIS files of the complete and final copy of the work scope. Any modifiable files are provided in Microsoft Office format. Risk Management Professionals does not consider the final deliverables proprietary resulting in no extra charge for the electronic files. - Hours associated with certain elements are subject to change as the tasks associated with these elements are still under review by the DWR until further notice. The anticipated release date for the finalized 2015 UWMP Guidelines is mid-October 2015. - Any unused hours will not be billed to the Client. In the event that the hours needed exceed the hours quoted in this proposal, additional scope will be communicated to the client immediately for approval. - Any additional activities not outlined in the scope of work above may be provided at additional cost. - Travel will be billed to the Client at cost. This estimate assumes reasonable advance notification for travel arrangements. Any schedule delays or late notification of project scheduling may potentially increase travel costs for the project. - Risk Management Professionals' payment terms are net 30 days. A 3% late fee will be applied to all invoices over 60 days late.						

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Section A: Cover Letter

Section B: Qualifications of Firm/Project Team

Section C: References

Section D: Strategy and Implementation Plan

Section E: Proposed Quality Assurance Program (QA/QC)

Attachments

Attachment 'A': Resumes

Attachment 'B': Project Schedule

CONTACT INFORMATION

Prepared for:



City of Banning
99 E. Ramsey Street
Banning, CA 92220
Contact: Holly Stuart
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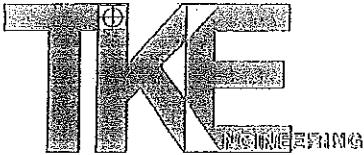
Prepared by:



TKE Engineering, Inc.
2305 Chicago Avenue
Riverside, CA 92507
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e-mail: mthornton@tkeengineering.com



City of Banning
2015 Urban Water Management Plan



T K E E N G I N E E R I N G , I N C .

September 29, 2015

Holly Stuart, Public Works Analyst
CITY OF BANNING
99 E. Ramsey Street
Banning, CA 92220

REC
City Clerk's Office

Subject: Request for Proposal for 2015 Urban Water Management Plan

Dear Ms. Stuart,

Thank you for the opportunity to present this material outlining TKE Engineering's (TKE) qualifications to provide professional engineering services to the City of Banning (City). Enclosed herein are our qualifications to provide engineering services for developing a 2015 Urban Water Management Plan. TKE is a full service, multi-disciplinary consulting firm located at 2305 Chicago Avenue, Riverside, CA 92507. TKE was established in 2000 and over the past fifteen years has developed into one of Southern California's leading consulting engineering firms. TKE is highly qualified to perform the services required for successful long-term resource planning. We are enthusiastic about the opportunity to assist the City in bettering its water resource reliability and reaching its goals of providing affordable, reliable, and high-quality drinking water to City customers.

Why should the City choose TKE to provide design engineering services? Please consider the following:

- 1. Our Team-**The City will benefit greatly by continuing the vision, leadership, and dedication to community exhibited by TKE's project team. Our experience in the Inland Empire and Coachella Valley region, numerous accomplishments and management skills will help maintain continuity in the planning and management of water resources. In particular, Michael Thornton, our Principal in Charge, has a vast amount of experience with all aspects of water resource planning and management, including the long-term management of the limited water resources within Southern California, and more specifically the Inland Empire and Coachella Valley. In addition, Steven Ledbeiter, our project manager, also has a vast amount of experience with water resource planning documents having assisted Mr. Thornton with numerous tasks in the Inland Empire and Coachella Valley. His excellent project management skills will provide a great benefit to the City, in particular, his experience with water supply and demand analysis, will ensure the limited water resources are used efficiently providing the maximum value to the public and improve water source reliability. More detailed information about each member of our project team is presented in our proposal. After reading our proposal, we are sure you will be pleased with the amount of specialized experience our team brings to this project.
- 2. Our Experience and Qualifications-**TKE is a full-service, multi-disciplinary firm that has a comprehensive knowledge of the water resources and challenges throughout the Inland Empire and Coachella Valley Region and Urban Water Management Plan requirements and does not require the services of a subconsultant. As described in our proposal, TKE has a vast amount of water resource planning experience, having been involved in water resource planning and management throughout the Inland Empire and Coachella Valley over the past 10 years. TKE's broad range of successful services includes turnkey program and project management and delivery for a diverse array of water resources projects. The City benefits from our broad range of experience through our intimate understanding of the Inland Empire and Coachella Valley and our past history of successfully overcoming water supply challenges.
- 3. Our Commitment-**TKE is committed to assisting the City in achieving its goal of providing affordable, reliable, and high-quality drinking water to its customers. To deliver comprehensive water resource planning, the City desires to partner with consultants to develop planning documents that meet the requirements set forth by the Department of Water Resources, meet the needs of the City's service area and the San Geronimo Pass, and provide recommendations on meeting those requirements and needs. TKE is committed to completing all design service tasks working closely with the City's project management. To begin to demonstrate this commitment, TKE researched guidance documents and available records prior to proposal preparation. Developing a 2015 Urban Water Management Plan will include significant challenges and requires a consultant with the 'right' experience, especially as the State struggles with ongoing drought and anticipated long-term climate changes. Challenges include, but are not limited to, developing water demand baselines and targets, ensuring compliance with water use targets by 2020 and recent updates to demand management measures.

including drought legislation. TKE has completed similar plans requiring such analysis and is highly qualified to provide all of the services that the City will require for successful project completion.

Prior to beginning any services, TKE's Project Manager will meet to discuss plan requirements and scheduling needs. Our Project Manager will be in contact with City staff to ensure all needs are met within the allotted schedule and are within their allocated budgets. It is this personal touch and contact that define our "local service" approach. We consider ourselves community builders and take ownership of projects assigned to TKE, ensuring that our personnel will be allocated on an as needed basis in order to complete all projects on schedule.

Our broad array of services and in-house team provides the City a trusted consultant to turn to in any challenge, no matter how simple or complex. We pride ourselves in the management and completion of special, atypical projects and thrive on challenging budgets and deadlines. It is this commitment to service and diverse array of offerings that makes us unique and drives our long-standing relationship with our client base and it is these qualities and that make us "the right fit" for the City of Banning.

4. Our Value-TKE's management team and staff are fundamentally committed to creating value in each task that we perform. As such, we have created a professional culture wherein each member of our staff constantly strives for increased efficiency, ultimately allowing us to provide highly professional services at competitive rates. This culture of constant value creation and increased efficiencies ensures that the services contracted to and provided by TKE will always mean good stewardship of public resources.

Thank you for your consideration. TKE very much appreciates the opportunity to submit a comprehensive proposal to provide engineering design services for development of the 2015 Urban Water Management Plan. If you have any questions, please call me at (951) 680-0440 or e-mail me at mthornton@tkeengineering.com.

Sincerely,



Michael P. Thornton, P.E., P.L.S., M.S.
President
TKE Engineering, Inc.

Section B: Qualifications Of Firm/Project Team

FIRM

TKE Engineering, Inc. (TKE) is a full-service, local, multi-disciplinary firm with a wide range of experience in public improvement projects. TKE employs a team of 20 engineers, surveyors, inspectors, drafters, and administration support staff. More than 90% of TKE's core staff has been with us for ten years or more, creating an extremely cohesive team. TKE is a corporation founded in 2000, and in the last fifteen years it has developed into one of Southern California's premier full service consulting engineering firms. TKE was established with the goal of providing exceptional service for municipal projects in order to benefit our community. As a result of the focus of a firm on this mission, TKE has earned a reputation for thoroughness, rapid turnaround, cost efficiency and overall quality of work. We are a highly motivated, dynamic firm with the goal of being your preferred consultant.

Our broad range of successful services includes water resources engineering, turnkey design, program and project management, construction management, inspection, and delivery for a diverse array of public projects. The City of Banning (City) will benefit from our broad range of experience through our intimate understanding of the common pitfalls for each project variation and our past history of successfully overcoming these challenges. TKE's intimate understanding of water resources throughout the Inland Empire and Coachella Valley and our past history of successfully planning and managing these resources. In addition, TKE's extensive experience in the Inland Empire and Coachella Valley includes participation in development of a Water Management Plan for the Mission Creek, Garnet Hill and Upper Whitewater Subbasins together with development of the Coachella Valley Integrated Water Management Plan (both the original version and the most current update). As such TKE has developed a comprehensive understanding of water resources throughout the Inland Empire and Coachella Valley including natural recharge, subsurface flows from adjacent groundwater basins, deep percolation of applied water (return flows), and artificial recharge. Furthermore, TKE experience includes extensive experience related to groundwater quality issues in the basin and effective strategies to manage the water quality. Finally, TKE continues to assist other Inland Empire and Coachella Valley agencies with demand and growth projections.

TKE has also prepared numerous 2010 UWMP's for agencies including the Coachella Water Authority UWMP. This past experience together with our research of current requirements allows TKE the abilities to provide the City a comprehensive and cost effective UWMP.

The following is a listing of relative services provided by TKE:

Civil Engineering

TKE's Civil Engineering projects have included:

- Urban Water Management Plans
- Water Resource Studies
- Master Plans
- Water Supply Assessments / Water Supply Verifications
- Rate Studies
- Infrastructure Master Planning/Capital Improvement Program (CIPs) development and management
- Hydrologic Studies/Hydraulic Design
- Potable and Recycled Water Infrastructure Funding, Planning, Design, Bidding and Construction
- Sanitary Sewer Infrastructure Funding, Planning, Design, Bidding and Construction
- Sewer and Water System Hydraulic Analysis
- Storm Water Pollution Prevention Plans (SWPPP)
- Sediment and Erosion Control Facilities
- Hydromodification Studies/Water Quality Management Plans (WQMPs)

PROJECT TEAM

TKE has assembled an elite team of professionals to provide the City with professional engineering services. Our team has a wealth of experience working together and has developed an excellent working partnership that will be an invaluable resource to the City. This knowledge improves overall project management, reduces the opportunity for costly mistakes and delays, and allows our staff to provide very effective and efficient service to you.

Mr. Thornton, TKE's President, is in charge of all TKE projects. He has over 28 years of experience in engineering planning, design, land surveying and construction management for public works projects. He has worked on a variety of public works engineering projects including sewer improvements, water improvements, street improvements, park improvements, bike trail improvements, drainage improvements, and reclaimed water system improvements projects. Mr. Thornton has been responsible for managing including funding administration, planning, evaluating, and designing these projects and has provided construction engineering and surveying services for many of these same projects. Mr. Thornton has been providing Inland Empire agencies with consulting services for more than a decade. He can be reached by phone at (951) 680-0440 or by email at mthornton@tkeengineering.com.

Mr. Ledbetter has over 14 years of professional experience in the civil engineering industry. As a

Section B: Qualifications Of Firm/Project Team

project manager, he has handled various critical and challenging projects from planning through design and implementation; all while ensuring that projects are executed as per specification in the stipulated time with quality. He has a well-rounded background with experience in utility master planning including computer modeling, analysis, and report preparation; water supply planning including feasibility studies, urban water management plans, water supply assessments and verifications; storm water compliance reporting including water quality management plans and storm water pollution prevention plans. He can be reached by phone at (951) 680-0440 or by email at sledbetter@tkeengineering.com.

Resumes have been provided in Attachment 'A.'

QUALIFICATIONS AND EXPERIENCE

TKE has extensive experience with an excellent reputation in both the development of resource planning documents and master planning documents. Throughout our history of fourteen years serving Southern California, we have provided engineering design and management support services for areas throughout the Inland Empire and Coachella Valley. We have successfully completed complex and challenging planning documents for a variety of municipal agencies who have continued to request that we partner with them in delivering much needed planning tools to their communities.

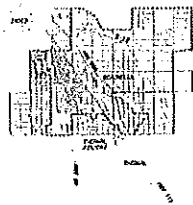
Our water resource planning experience has included the full services of technical analysis, including growth and demand projections, supply reliability analysis, analysis of water conservation measures and programs, and coordination with other regional and local water purveyors necessary for the completion of challenging water resource planning documents.

We are sure that the successful results of our past performance in the delivery of water resource planning documents, along with our firm's proven ability to utilize our experience for a complete and well-engineered approach to resource management, will provide a valuable resource to the City. Project experience has been provided on the following pages.

Section C: References

Please see the Table below for a small, but representative list of agencies who have and continue to request TKE Engineering (TKE) to assist them in delivering valuable projects to their communities. We respectfully request that you verify our qualifications with the listed references.

AGENCY	CONTACT NAME	PHONE NUMBER	DATES SERVICES PROVIDED (FROM/ THROUGH)
CITY OF COACHELLA	MR. JONATHAN HOY, CITY ENGINEER	(760) 398-5744	2010-PRESENT
CITY OF EL MONTE	MR. CESAR ROLDAN, SENIOR ENGINEER	(626) 580-2057	2008-PRESENT
CITY OF CALIMESA	MR. BOB FRENCH, PUBLIC WORKS DIRECTOR	(909) 795-9801	2012-PRESENT
MISSION SPRINGS WATER DISTRICT	MR. ARDEN WALLUM, GENERAL MANAGER	(760) 329-5169	2001-PRESENT
CITY OF FONTANA PUBLIC WORKS DEPARTMENT	MR. CHUCK HAYS, DIRECTOR OF PUBLIC WORKS	(909) 350-6530	2000-PRESENT
SAN BERNARDINO MUNICIPAL WATER DEPARTMENT	MR. MIGUEL GUERRERO, PRINCIPAL ENGINEER	(951) 684-7580	2003-PRESENT
RUBIDOUX COMMUNITY SERVICES DISTRICT	MR. STEVE APPEL, ASSISTANT GENERAL MANAGER	(951) 684-7580	2000-PRESENT
EAST VALLEY WATER DISTRICT	MR. ELISEO OCHOA, PROJECT MANAGER	(909) 888-8986	2012-PRESENT



2010 Urban Water Management Plan Update

City of Coachella, CA

Client Contact
Mr. Jonathan D. Hoy
City of Coachella
(760)398-3502
jhoy@coachella.org

Project Cost
N/A

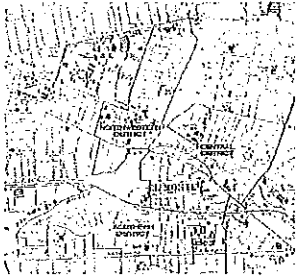
Completion Date
July 2011

Project Team
Michael P. Thornton, P.E., L.S.
Steven W. Ledbetter, P.E.

Description: Update to the City's 2005 Urban Water Management Plan. TKE prepared the long-term resource planning documents for the City to analyze the adequacy of the City to meet the water demand needs, both existing and future, of various customer categories over a 20-year planning period, including normal, single dry, and multiple dry water years, consistent with California Water Code Section 10610 through 10656 and SBX7-7. Reports included system descriptions, demand analysis, system supplies, supply reliability and shortage analysis, demand management measures, and demand reduction analysis (20% by 2020).

Services: Services included records research, water supply and demand analysis, report preparation, and community meetings.

Section C: References



2010 Urban Water Management Plan Update

City of El Monte, CA

Client Contact
Mr. Brian P. Hellein
City of El Monte
(626)580-2250
bhellein@ci.el-monte.ca.us

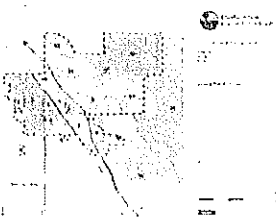
Project Cost
N/A

Completion Date
July 2011

Project Team
Michael P. Thornton, P.E., L.S.
Steven W. Ledbetter, P.E.

Description: Update to the City's 2005 Urban Water Management Plan. TKE prepared the long-term resource planning documents for the City to analyze the adequacy of the City to meet the water demand needs, both existing and future, of various customer categories over a 20-year planning period, including normal, single dry, and multiple dry water years, consistent with California Water Code Section 10610 through 10656 and SBX7-7. Reports included system descriptions, demand analysis, system supplies, supply reliability and shortage analysis, demand management measures, and demand reduction analysis (20% by 2020).

Services: Services included records research, water supply and demand analysis, report preparation, and community meetings.



2035 General Plan Update Water Supply Assessment

City of Coachella, CA

Client Contact
Mr. Jonathan D. Hoy
City of Coachella
(760)398-3502
jhoy@coachella.org

Project Cost
N/A

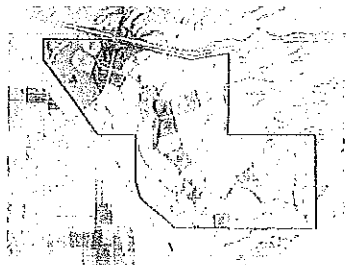
Completion Date
October 2013

Project Team
Michael P. Thornton, P.E., L.S.
Steven W. Ledbetter, P.E.

Description: The proposed 2035 General Plan Update aids the City in establishing its new identity, an identity that will be realized during the next growth cycle. The 2035 General Plan Update is the community's statement of the community's values and its vision for its future. As part of that vision, a CEQA environmental review is prepared to evaluate impacts related to future growth outlined in the General Plan. A water supply assessment was prepared for inclusion as part of the General Plan Update CEQA. In accordance with SB 610, TKE provided an assessment of water supplies available to serve all development up to 2035, including normal, single dry, and multiple dry water years.

Services: Services included records research, water supply and demand analysis, report preparation, and community meetings.

Section C: References



La Entrada Water Supply Assessment

City of Coachella, CA

Client Contact
Mr. Jonathan D. Hoy
City of Coachella
(760)398-3502
jhoy@coachella.org

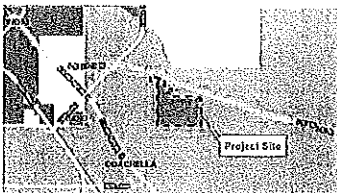
Project Cost
N/A

Completion Date
October 2013

Project Team
Michael P. Thornton, P.E.,
L.S.
Steven W. Ledbetter, P.E.

Description: The proposed La Entrada development includes 7,800 dwelling units (mixture of high, medium, low and very low density), mixed-use development with up to 1,520,000 square feet of commercial floor area, schools, parks/recreation, and open space, on 2,200 acres of vacant land within the northeastern sections of the City of Coachella with an estimated water demand of 5,400 acre-feet per year. In accordance with SB 610, TKE provided an assessment of water supplies available to serve the development over a 20-year period, including normal, single dry, and multiple dry water years.

Services: Services included records research, Project specific water demand analysis, City wide water supply and demand analysis, report preparation, and community meetings.



Vista Del Agua Water Supply Assessment

United Engineering Group / City of Coachella, CA

Client Contact
Mr. Beau D. Cooper
United Engineering Group
(909)466-9240
bcooper@unitedeng.com

Project Cost
N/A

Completion Date
Ongoing

Project Team
Steven W. Ledbetter, P.E.

Description: The proposed Vista Del Agua development includes 1,640 single family and multi-family residential units on 275 acres of vacant land within the northern sections of the City of Coachella with an estimated water demand of 1,317 acre-feet per year. In accordance with SB 610, TKE provided an assessment of water supplies available to serve the development over a 20-year period, including normal, single dry, and multiple dry water years.

Services: Services included records research, Project specific water demand analysis, City wide water supply and demand analysis, report preparation, and community meetings.

Section D: Strategy and Implementation Plan

SCOPE OF WORK

Task 1. Project Management, Meetings and Coordination

TKE will provide support as necessary to coordinate and attend project meetings (i.e. kickoff, eight (8) progress, and final). Deliverables will include meeting minutes, progress reports, and project schedules, as necessary. This task includes time for coordination with the main water purveyors of the region related to their 2015 updates. TKE estimates ten (10) meetings will be included.

Task 2. Preliminary Work and Records Research

TKE will research, collect and review existing documentation related to requirements of the California Urban Water Management Planning Act, water code changes, the City's 2010 UWMP including: regional purveyors' records, City records (e.g. demographics, rainfall, annual production and water use, water sales, water loss, etc.), water quality data, water system and recycled water master plans, recycled water feasibility studies, groundwater management plans, conservation measures and reporting (i.e. demand management measures), the regional purveyor's 2015 UWMP updates, and other pertinent City data. Additionally, TKE will meet with City staff to vet all data needs for preparation of the 2015 UWMP prior to beginning work. Results of said meeting will be formalized in a memorandum to the City. We will acquire all documentation necessary to produce information necessary for inclusion into the 2015 UWMP update.

Task 3. Report Preparation

TKE will prepare the 2015 UWMP report in accordance with the requirements of the California Urban Water Management Planning Act and the Department of Water Resources 2015 UWMP Guidebook. The report will be used as an update to the 2010 UWMP provided to TKE and will incorporate all revised data for the time period since the last UWMP issuance. Additionally, TKE will prepare both a draft and final report. The draft 2015 UWMP will be circulated to the City and other regional agencies for comment. TKE will incorporate comments from outside agencies, as appropriate. Further, the plan will include all supporting documentation (e.g. citing sources, calculations and spreadsheets, letters, notices, reference reports, any written work product, and maps and exhibits). The 2015 UWMP elements include the following:

Subtask 3.1 Plan Preparation

This section will discuss regulatory requirements requiring UWMP preparation and compliance, a summary of coordination efforts and plan review with regional water purveyors and other agencies, and any regional planning efforts.

Subtask 3.2 System Description

This section will provide a description of the City's history and governance. In addition, discuss the City's service area boundary including existing and future development, overlap with outside agencies (i.e. County of Riverside), and areas within the City's service area not served by the City, together with graphics. Finally, this section will discuss the City's climate and demographics including population, growth rates, and housing units. Since the City provides water service to unincorporated areas of the county, population counts will be derived from Census Block and Tract Maps.

Subtask 3.3 System Demands

This section will discuss the City's historic, existing, and future water demands through 2040 by sector (e.g. single family residential, commercial, etc.), unit water demands, water sales, water transfers and exchanges, water losses, water savings, and groundwater recharge and storage efforts. In addition, TKE will review recent water billing data to verify water demand factors, analyze indoor and outdoor water use, and determine demand for lower income households. Demand projections will take into account City coeds and standards already in place (i.e. CalGreen Codes and appliance/fixture standards). Although not required, TKE can provide a discussion on the potential of climate change to affect the City water demands.

Subtask 3.4 Baselines and Targets

Water suppliers are required to reduce their urban water use by the Water Conservation Act of 2009 (SBX7-7); which requires a Statewide reduction in water use by 20% by the year 2020. To track the City's progress in meeting this goal, TKE will establish water use baselines and targeted water use levels for the years 2015 and 2020. This section will discuss the methodologies used to determine baselines and targets, City required baselines and targets, the City's compliance with the interim 2015 target, and assess the City's progress toward meeting 2020 targets.

Subtask 3.5 System Supplies

This section will provide a comprehensive discussion of all water supply sources available to the City including groundwater sources, surface water sources, storm water sources (i.e. capture and recharge or groundwater banking), recycled water sources and opportunities, desalination water opportunities, water exchanges and transfers, water rights, and water purchases. In addition, water

Section D: Strategy and Implementation Plan

supply related agreements and management documents will be summarized as it related to potential impacts on water supplies. Lastly, this section will highlight planned and future water supply projects and programs in the City's portfolio.

Subtask 3.6 Water Supply Reliability

This section will discuss the long-term reliability of the City's water supplies. Water supply reliability will be determined by a number of factors including, but not limited to, availability and quantity of water supply sources, anticipated growth within the City's service area, precipitation, climate change, and water quality impacts. TKE will prepare a water supply and demand analysis based on average year, single year, and multi-year dry periods. Lastly, TKE will summarize the City's options and management tools to maximize local water supply sources and reduce impacts to the region.

Subtask 3.7 Water Shortage Contingency Planning

This section will discuss how the City will prepare for and respond to water shortages. Water shortages may derive from any number of sources including extended drought periods, interruptions to imported water supplies, earthquakes that damage production and supply infrastructure, power outages, etc. TKE will describe the City's water shortage stages of actions and associated voluntary and mandatory water use reductions, monitoring and enforcement options, and consumption reduction methods. In addition, this section will discuss catastrophic supply interruptions and a minimum three year supply analysis (i.e. suspension of Delta/imported water supplies).

Subtask 3.8 Demand Management Measures

This section will provide a comprehensive discussion on water conservation measures, both existing and planned. While the City is not a signatory to the California Urban Water Conservation Council Memorandum of Understanding, the City is committed to and actively participating in various water conservation measures. TKE's analysis will evaluate the City's participation and effectiveness in implementing water conservation best management practices. In addition, TKE will evaluate and summarize recent changes in Demand Management Measure reporting.

Subtask 3.9 Plan Implementation

This section will provide a summary of how the City will implement the adopted 2015 UWMP in accordance to the provisions and timelines set forth provided in 2015 UWMP.

Task 4. Public Notice, Hearing, and Adoption

TKE will prepare all materials related to outreach, notices, public hearings, and adoption of the 2015 UWMP in accordance with DWR requirements, including: agency notifications, public notice, public comment periods, staff report, adoption resolution, public hearing and council

presentation, and report submittal. TKE estimates three (3) meetings will be included to complete this task.

PROJECT SCHEDULE

A project schedule has been included in Attachment 'B'.

Section E: Proposed Quality Assurance Program

QUALITY ASSURANCE/QUALITY CONTROL

TKE takes pride in our reputation for thoroughness, rapid turnaround, cost efficiency and overall quality of work, and believes that a high level of quality is needed on all PS&E packages. High quality planning and design yields the following tangible results:

- Ease of oversight
- Smoother processing
- Healthy number of bidders
- Consistent bids
- Minimized construction support cost
- Absence of design-related change orders
- Reduced claims and dispute resolution costs

TKE believes that the most successful quality assurance program is one that is applied inherently throughout the entire planning and design process and all design activities. This program requires not only formal procedures for checking, but encourages the conscientious effort of experienced people to always "create quality" in every task performed throughout the planning and design process.

This program has become a natural element in all aspects of TKE's planning, design, and management activities, and will guide our work on this contract:

- Staff training and development
- Assignment of experienced staff
- Continuity of staffing
- Project-specific work plan
- Schedule compliance
- Comprehensive field review and compilation of site data
- Established design procedures
- Established detailing standards
- Established checking procedures, including independent in-house QA/QC review
- Dual (independent) quantity estimates
- Review by Constructability expert

This Quality Assurance/Quality Control program is in place to ensure that PS&E documents prepared by TKE continue to exceed the standards of our clients and that we will deliver the project on schedule and within budget.

PROJECT APPROACH

Successful plan delivery is our goal. Our definition of successful plan delivery is:

- Plan completion that meets all Water Code and DWR requirements
- Plan completion within budget
- Plan completion on schedule

Our goal is not limited to the development of the plan only, but includes the incorporation of value engineering and feasibility review. Through the examination of specific planning alternatives, we will identify the most cost effective project alternative that meets conservation goals and will provide for the greatest opportunity for efficient use of resources, which allows us to consistently deliver plans that use public resources in a very wise and responsible manner. We have developed this planning approach in order to maintain an expertise in our core business of planning with tight budgetary constraints.

Our approach to your plan, recognizing that both schedule and budget are of primary concern, dictates that plan development decisions must be made quickly but carefully. When this is coupled with the various constraints present with any planning effort, it is critical that the City choose a consultant with a proven track record of delivering. With a familiar team of senior level planning, design, and construction professionals, TKE is the right choice for this project.

With plans of this nature, our experience tells us that there must be a proactive approach to completing the work. This approach includes early identification of critical water supply elements, experience with common challenges, and adhering regulatory requirements throughout the entire process. In preparing this plan, our team spent numerous hours reviewing available records and the RFP to establish key issues so we can be prepared to mobilize on a moment's notice to assist you.

Critical Issues

Identification of Critical Plan Elements

Our approach to this critical issue will be to immediately initiate field review, perform very thorough records research, and document all the critical plan elements so they can be presented in the 2015 UWMP. This will provide a head start on water supply planning and water conservation measures in order to ensure proper adherence to planning goals.

Experience with Common Challenges

Water Code Changes

TKE's extensive experience with previous UWMP's will provide a vast knowledge of seemingly simple but often overlooked legislative details regarding compliance. TKE is extremely familiar with legislative changes that have passed since the 2010 UWMP completion that have a direct impact on compliance in the 2015 UWMP. For example, this plan will require a detailed analysis on water loss and notifying DWR of any City owned and operated water features.

Section E: Proposed Quality Assurance Program

TKE will ensure the 2015 UWMP remains compliant with all recent legislative changes.

UWMP Requirements

TKE will fully review and respond to each UWMP requirement. DWR has rejected UWMP in the past for not specifically addressing each and every UWMP requirement. If specific requirements do not apply to the City, TKE will state the reason way to avoid any plan review challenges. Further, TKE will complete the UWMP checklist and include in the plan appendices to verify all regulatory requirements have been met.

Accurate Population and Growth Projection

One of the critical issues with UWMP development is ensuring the population in the City's service area is accurately documented. Improper population accounting will skew water use baselines and targets that the City will be required to adhere to. Since the City's service area extends into unincorporated areas of the county, readily available demographic information cannot be used. TKE will prepare a detailed analysis using Census Block and Tract Maps to determine existing population and growth forecasts.

Baselines and Targets

TKE's team will evaluate water use baselines and targets and the City's progress toward meeting them. If the City hasn't met interim 2015 targets, TKE will provide a plan of action consisting of certain water conservation measures to get the City on track to meeting water reduction goals established in the plan. Further, if the City is not on track to meet goals, TKE will provide recommendation to more aggressive water conservation measures that have proven successful with other agencies we have intimate experience with.

Timely Adoption

TKE is familiar with the plan submittal date of July 1, 2016 and will ensure the final plan is ready in advance of the public notification and hearing requirements.

ATTACHMENT 'A': RESUMES



Mr. Michael Thornton, P.E., L.S., M.S.

Project Role:
Principal-in-Charge
Project Manager

Education
MS, Civil Engineering,
California State
University, Long Beach
BS, Civil Engineering,
California State
Polytechnic University,
Pomona

Registration
Registered Civil Engineer,
PE 44226 (CA)
Professional Land
Surveyor, LS 6867 (CA)

Affiliations
Riverside-San Bernardino
Counties Branch,
American Society of Civil
Engineers
American Water Works
Association
California Rural Water
Association

Mr. Thornton, TKE's President, is in charge of all TKE projects. He has over 29 years of experience in engineering planning, design, land surveying and construction management for public works projects. He has worked on a variety of public works engineering projects including street improvements, park improvements, bike trail improvements, drainage improvements, and reclaimed water system improvements projects. Mr. Thornton has been responsible for managing including funding administration, planning, evaluating, and designing these projects and has provided construction engineering and surveying services for many of these same projects.

Related Experience

- *Mission Creek and Garnet Hill Water Management Plan, Mission Springs Water District* – Mr. Thornton represented Mission Springs Water District (MSWD) at technical coordination meetings during development of the development of the Water Management Plan (WMP). His responsibilities included representing MSWD at the meetings, review of technical memorandums and other project deliverables, review of modeling results, preparation of reports and presentation for incorporation in the final report, review and comments to the final report. In addition, he provided numerous presentations to the MSWD's board of directors during plan development as well as during the plan adoption.
- *Coachella Valley Regional Water Management Group (CVRWVG)* – Mr. Thornton continues to represent Mission Springs Water District (MSWD) at technical coordination meetings. His responsibilities included representing MSWD at the meetings, review of technical memorandums and other project deliverables, assistance with grant funding applications, and presentations to MSWD board of directors. While representing MSWD at these meetings, Mr. Thornton was responsible for review of the Coachella Valley Integrated Regional Water Management Plan update.
- *2010 Urban Water Management Plan Update, City of Coachella, CA* – Mr. Thornton directed staff in preparing the long-term resource planning documents for the City to analyze the adequacy of the City to meet the demand needs, both existing and future, of various customer categories over a 20-year planning period, including normal, single dry, and multiple dry water years, consistent with California Water Code Section 10610 through 10656 and SBX7-7. Reports included system descriptions, demand analysis, system supplies, supply reliability and shortage analysis, demand management measures, and demand reduction analysis (20% by 2020).
- *2010 Urban Water Management Plan Update, City of El Monte, CA* – Mr. Thornton directed staff in preparing the long-term resource planning documents for the City to analyze the adequacy of the City to meet the demand needs, both existing and future, of various customer categories over a 20-year planning period, including normal, single dry, and multiple dry water years, consistent with California Water Code Section 10610 through 10656 and SBX7-7. Reports included system descriptions, demand analysis, system supplies, supply reliability and shortage analysis, demand management measures, and demand reduction analysis (20% by 2020). The City's reliance

ATTACHMENT 'A': RESUMES



Mr. Steven Ledbetter, P.E.

Project Role Project Manager

Education

BS, Civil Engineering
(Environmental),
California State
Polytechnic University,
Pomona

Registration

Registered Civil Engineer,
PE 84044 (CA)

Affiliations

Riverside-San Bernardino
Counties Branch,
American Society of Civil
Engineers

Certifications

Certificate (2007),
CAD Pilot Boot Camp
for AutoCAD Civil 3D

Certificate (2010),
Caltrans 24 Hour Training
for Water Pollution
Control Managers

Mr. Ledbetter has over 14 years of professional experience in the civil engineering industry. He has been a part of the TKE Engineering's project team since 2003. He has handled various critical and challenging projects from planning through design and implementation; all while ensuring that projects are executed as per specification in the stipulated time with quality. He has a well-rounded background with experience in: preparation and analysis of street and utility improvement plans and specifications including potable and non-potable water, wastewater, and drainage; utility master planning including computer modeling, analysis, and report preparation; water supply planning including feasibility studies, urban water management plans, water supply assessments and verifications; storm water compliance reporting including water quality management plans and storm water pollution prevention plans and; and grant writing for various State and Federal agencies.

Related Experience

- *2010 Urban Water Management Plan Update, City of Coachella, CA* – Mr. Ledbetter prepared the long-term resource planning documents for the City to analyze the adequacy of the City to meet the demand needs, both existing and future, of various customer categories over a 20-year planning period, including normal, single dry, and multiple dry water years, consistent with California Water Code Section 10610 through 10656 and SBX7-7. Reports included system descriptions, demand analysis, system supplies, supply reliability and shortage analysis, demand management measures, and demand reduction analysis (20% by 2020).
- *2010 Urban Water Management Plan Update, City of El Monte, CA* – Mr. Ledbetter prepared the long-term resource planning documents for the City to analyze the adequacy of the City to meet the demand needs, both existing and future, of various customer categories over a 20-year planning period, including normal, single dry, and multiple dry water years, consistent with California Water Code Section 10610 through 10656 and SBX7-7. Reports included system descriptions, demand analysis, system supplies, supply reliability and shortage analysis, demand management measures, and demand reduction analysis (20% by 2020). The City's reliance on the adjudicated Main San Gabriel Basin proved to be challenging in meeting water supply goals for future growth.
- *2035 General Plan Update Water Supply Assessment, City of Coachella, CA* – The proposed 2035 General Plan Update aids the City in establishing its new identity, an identity that will be realized during the next growth cycle. The 2035 General Plan Update is the community's statement of the community's values and its vision for its future. As part of that vision, a CEQA environmental review is prepared to evaluate impacts related to future growth outlined in the General Plan. Mr. Ledbetter was the project manager responsible for preparing a water supply assessment for inclusion as part of the General Plan Update CEQA. In accordance with SB 610, TKE provided an assessment of water supplies available to serve all development up to 2035, including normal, single dry, and multiple dry water years. Services included records research, water supply and demand analysis, report preparation, and

ATTACHMENT 'A': RESUMES

community meetings.

- *La Entrada Water Supply Assessment, City of Coachella, CA* – The proposed La Entrada development includes 7,800 dwelling units (mixture of high, medium, low and very low density), mixed-use development with up to 1,520,000 square feet of commercial floor area, schools, parks/recreation, and open space, on 2,200 acres of vacant land within the northeastern sections of the City of Coachella with an estimated water demand of 5,400 acre-feet per year. In accordance with SB 610, Mr. Ledbetter provided an assessment of water supplies available to serve the development over a 20-year period, including normal, single dry, and multiple dry water years.
- *Vista Del Agua Water Supply Assessment, United Engineering Group, City of Coachella, CA* – The proposed Vista Del Agua development includes 1,640 single family and multi-family residential units on 275 acres of vacant land within the northern sections of the City of Coachella with an estimated water demand of 1,317 acre-feet per year. As project manager, Mr. Ledbetter prepared an assessment of water supplies available to serve the development over a 20-year period, including normal, single dry, and multiple dry water years, while ensuring compliance with SB 610. Services included records research, Project specific water demand analysis, City wide water supply and demand analysis, report preparation, and community meetings.

City of Banning
Preliminary Engineering Services for the Development of the 2015 UWMMP
Project Schedule

ID	Task Name	Duration	Start	Finish	
1	Initial "Kick Off" Meeting (1)	1 day	Mon 11/30/15	Mon 11/30/15	
2	Records Research	10 days	Tue 12/1/15	Mon 12/14/15	
3	Draft Report Preparation	20 days	Tue 12/15/15	Mon 1/11/16	
4	Draft Plan Progress Meetings (6)	1 day	Tue 1/12/16	Tue 1/12/16	
5	Draft Report Circulation and City Review	30 days	Wed 1/13/16	Tue 2/23/16	
6	Review Comments with City Staff (1)	1 day	Wed 2/24/16	Wed 2/24/16	
7	Final Draft Report Preparation	5 days	Thu 2/25/16	Wed 3/2/16	
8	Final Draft Plan Progress Meetings (1)	1 day	Thu 3/3/16	Thu 3/3/16	
9	Public Notice (60 Calendar Days)	42 days	Fri 3/4/16	Mon 5/2/16	
10	Public Hearing	1 day	Tue 5/10/16	Tue 5/10/16	
11	Final Report Preparation	5 days	Wed 5/11/16	Tue 5/17/16	
12	2015 UWMMP Adoption	1 day	Tue 5/24/16	Tue 5/24/16	
13	Final Plan Closeout Meetings (1)	1 day	Wed 6/1/16	Wed 6/1/16	
14	Submittal to DWR	1 day	Mon 6/6/16	Mon 6/6/16	

Task	Milestone	External Tasks
Split	Summary	External Milestone
Progress:	Project Summary	Deadline

Project: UWMMP Schedule 9-29-15
Date: Tue 9/29/15

City of Banning
2015 Urban Water Management Plan
Consulting Engineering Fee

Task No.	Task	Project Manager Hours	Project Manager \$	Project Engineer Hours	Project Engineer \$	Assistant Engineer Hours	Assistant Engineer \$	Clerical Hours	Clerical \$	Total \$
Design Scope of Services										
1	Project Management, Meetings and Coordination	40	\$ 5,200	10	\$ 1,100	10	\$ 1,000	20	\$ 1,300	\$ 8,600
2	Preliminary Work and Records Research	8	\$ 1,040	8	\$ 880	24	\$ 2,400	8	\$ 520	\$ 4,840
3	Report Preparation									
3.1	Plan Preparation	2	\$ 260	2	\$ 220	4	\$ 400	2	\$ 130	\$ 1,010
3.2	System Description	2	\$ 260	2	\$ 220	4	\$ 400	2	\$ 130	\$ 1,010
3.3	System Demands	2	\$ 260	4	\$ 440	8	\$ 800	2	\$ 130	\$ 1,630
3.4	Baselines and Targets	4	\$ 520	8	\$ 880	8	\$ 800	4	\$ 260	\$ 2,460
3.5	System Supplies	4	\$ 520	8	\$ 880	16	\$ 1,600	4	\$ 260	\$ 3,260
3.6	Water Supply Reliability	4	\$ 520	8	\$ 880	8	\$ 800	4	\$ 260	\$ 2,460
3.7	Water Shortage Contingency Planning	4	\$ 520	8	\$ 880	8	\$ 800	4	\$ 260	\$ 2,460
3.8	Demand Management Measures	8	\$ 1,040	8	\$ 880	8	\$ 800	4	\$ 260	\$ 2,980
3.9	Plan Implementation	2	\$ 260	2	\$ 220	2	\$ 200	2	\$ 130	\$ 810
4	Public Notice, Hearing, and Adoption	12	\$ 1,560	4	\$ 440	4	\$ 400	8	\$ 520	\$ 2,920
Subtotal:		92	\$ 11,960	72	\$ 7,920	104	\$ 10,400	64	\$ 4,160	\$ 34,440
		Reimbursables (@3%):								\$ 1,033
		Design Total:								\$ 35,473

Rates:

Project Manager	\$ 130 /HR
Project Engineer	\$ 110 /HR
Assistant Engineer	\$ 100 /HR
Clerical	\$ 65 /HR

Notes:

1.) Reimbursables Include Cost for Prints, Copies, Mileage, Etc.

TKE Engineering, Inc.

TKE ENGINEERING, INC.
RATE SCHEDULE
2014-2015

	<u>HOURLY RATE</u>
Principal in Charge	\$150.00
Project Manager/Construction Manager/Licensed Surveyor	\$130.00
Senior Engineer/Project Engineer (PE)/Senior Plan Checker	\$110.00
Associate Engineer	\$105.00
Assistant Engineer/Plan Checker .. /Designer	\$100.00
AutoCAD Technician	\$ 90.00
Engineering Technician	\$ 60.00
Clerical	\$ 65.00
Forensic Engineering	\$150.00
Expert Witness Testimony	\$250.00

SURVEYING SERVICES

2-Man Survey Crew.	\$190.00
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CONSTRUCTION SERVICES

Construction Inspector	\$ 90.00
Car/Truck for Construction Services Personnel ...	\$ 60.00/Day

REIMBURSABLE COSTS

In-house Reproduction	Cost
Printing and Materials	Cost + 10%
Express Mail/Courier/Next Day Service	Cost + 10%
Special Subconsultant Services ..	Cost + 10%

Revised July 2014

**Proposal for Preparation of City
of Banning's 2015 Urban Water
Management Plan – Update**

SEP 30 2015 *mac*
City Clerk's Office

SEPTEMBER 29, 2015

SECTION 1 – INTRODUCTION TO THE FIRM

SECTION 2 – KEY PERSONNEL AND LEVEL OF EFFORT

SECTION 3 – RELATED EXPERIENCE

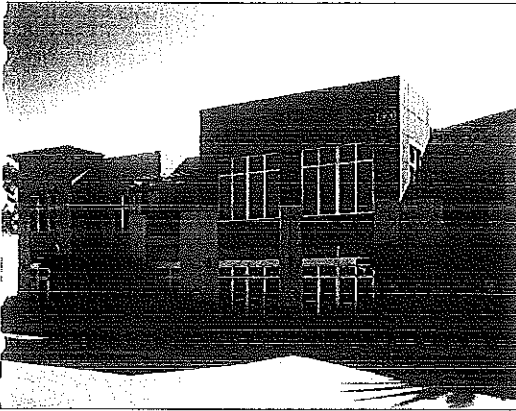
SECTION 4 - SCOPE OF WORK

SECTION 5 – PROJECT SCHEDULE

SECTION 6 – RESUMES

ATTACHMENT 1 – ESTIMATE OF COSTS (PROVIDED IN
SEPARATE ENVELOPE)

SECTION 1 – INTRODUCTION TO THE FIRM



GEOSCIENCE Services and Capabilities:

- Ground water Management – Evaluation and Planning
- Basin Characterization
- Basin Management Plans
- Artificial Recharge Studies
- Water Supply Issues
- Ground water Resource Assessments
- Production Well Location, Technical Specifications, and Supervision of Construction, DWSAP Preparation
- Well Rehabilitation/ Troubleshooting/Supervision of Rehabilitation
- Injection Well Design, Supervision of Construction, Troubleshooting
- Ground water Flow and Solute Transport Modeling (Using MODFLOW, MODPATH, MT3D, SEAWAT, HSPF among others)
- Ground water Quality Studies and Remediation
- Ground water Contamination Studies
- Evaluation of Subsidence due to Ground water Withdrawal
- Beach Well Intake for Desalination Plant Systems
- Water Rights Issues
- Consultant on Legal Issues, Expert Witness
- GIS

GEOSCIENCE Support Services, Inc., (GEOSCIENCE) is pleased to submit this proposal to prepare City of Banning's 2015 Urban Water Management Plan. GEOSCIENCE is an established geohydrologic consulting firm specializing in ground water resource planning, development, management, and protection. Through the use of state-of-the-art tools and analytical techniques, backed by proven scientific methodology and over three decades of experience, GEOSCIENCE continues to maintain its place at the forefront of technology in the area of water well design, ground water modeling, ground water studies, and basin management.

GEOSCIENCE is a privately owned, California corporation, and has been in continuous operation since its establishment in 1978. Over the past 37 years, GEOSCIENCE has played a leading role in solving water resource problems for cities and water districts in Southern California, including clients in the region—such as the San Bernardino Valley Municipal Water District, Yucaipa Valley Water District, Beaumont-Cherry Valley Water District, and City of Banning.

GEOSCIENCE's staff of 25 includes 8 professional geohydrologists, seven of which are licensed by the State of California as professional geologists, certified hydrogeologists, an engineering geologist, and a professional civil engineer.

In addition, GEOSCIENCE has successfully prepared City of Banning's 2010 Urban Water Management Plan-Update and has acted as reviewer for the City of Banning for the Pardee and Rancho San Geronio Water Supply Assessments. GEOSCIENCE has conducted ground water basin assessments and models in most ground water basins in Southern California. Keys to the success of these basin-wide studies include: 1) knowledge of the geohydrology of the basin of interest, 2) knowledge of the basin management environment including issues and concerns, 3) an accurate and comprehensive database, 4) geographic information systems (GIS) for data analysis and display, and 5) appropriate and adequately calibrated modeling tools

Currently, the City of Banning (City) exclusively uses water wells for their urban water supply. Water well siting, design, construction, testing and rehabilitation are a day-to-day part of business at GEOSCIENCE and, over the past three decades, we have gained worldwide recognition for well designs that result in high efficiency, low sand production, and long lifetime with minimal maintenance. Our expertise comes from practical experience in the design of more than 800 large-diameter, high-capacity water wells.

***With Experience in
Over 800 Wells,
GEOSCIENCE is a
World Leader in
Water Well Design,
Installation,
Construction,
Rehabilitation and
Troubleshooting Well
Issues***

We also have a reputation for providing our clients with sound recommendations for well rehabilitation.

The GEOSCIENCE staff are experts in groundwater management studies and the development of ground water models. Ground water flow models [MODFLOW and MT3D] are routinely used for ground water management purposes and to assist clients in understanding ground water level changes, well interference analyses, ground water movement, contaminant movement, and safe yield. All of this experience using the latest geohydrologic tools allows our firm to provide a comprehensive view of the Banning Water Supply system needed for the 2015 UWMP update.

GEOSCIENCE projects are directed by Dr. Dennis Williams, who is the President and Founder of the company. Dr. Williams has a Ph.D. in ground water hydrology and over 40 years of experience in ground water related projects. He is actively involved on a daily basis with GEOSCIENCE projects.

GEOSCIENCE has served as the District hydrologist for the Rancho California Water District since the 1980's. We conduct annual water audits of their ground water pumping using a ground water model developed for them as a management tool. In addition we have sited, designed, supervised construction, prepared DWSAP reports, and made recommendations for rehabilitation on over 24 of the District's production wells.

The Beaumont Cherry Valley Water District has utilized GEOSCIENCE to provide a full range of geohydrologic consulting services for the past several years. GEOSCIENCE was instrumental in evaluating the feasibility of their Noble Creek Artificial Recharge Facility. This facility was constructed based on the results of a drilling and testing program that was designed and managed by GEOSCIENCE. The facility has now been constructed and is successfully recharging State Project Water at a rate of approximately 11,000 acre-ft/yr.

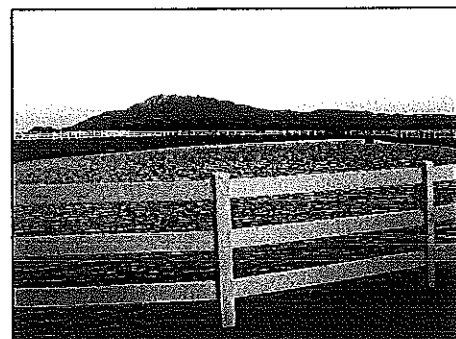
GEOSCIENCE was hired by the Metropolitan Water District of Southern California to conduct the baseline characterization for the Eastside Reservoir Project prior to construction. We also provided geohydrologic services throughout the project in the form of ground water modeling, well construction, geohydrologic characterization, ground water monitoring, and expert witness services as required.

GEOSCIENCE's expertise and service record for these clients is one of many examples of our firm's ability to accomplish a variety of assignments with the clients' objectives and issues in mind.

GEOSCIENCE AWARDS FOR OUTSTANDING PROJECTS

GEOSCIENCE provides a superior work product to our clients. As testament to that fact, GEOSCIENCE and their clients have been awarded the following:

- ▼ 2008 National Ground water Association's Outstanding Ground water Project Award for the Beaumont Cherry Valley Water District Recharge and Recreation Facility Project



- ▼ 2004 Research Achievement Award from the California Water Environment Association (Desert and Mountain Section) for the pilot scale artificial recharge testing of the Big Bear Area Regional Wastewater Agency's Recycled Water Artificial Recharge and Recovery Study.
- ▼ The Association of American Publishers' Honorable Mention in the Engineering Category of the Fifteenth Annual Awards for Excellence in Professional and Scholarly Publishing awarded to Dr. Dennis E. Williams for his authorship of the Handbook of Ground water Development (John Wiley & Sons).

In addition, GEOSCIENCE Support Services, Inc. is a certified Small Business Enterprise with the State of California and the Metropolitan Water District of Southern California.

FINANCIAL STRENGTH

As of 2015, GEOSCIENCE has been in business for 37 years. We are a financially strong and stable geohydrologic consulting firm. We operate out of a single office located in La Verne, California, with a staff of 25 dedicated professionals. The company has been owned and continuously operated by Dennis Williams since inception. Approximately 85% of our business comes from repeat clients. GEOSCIENCE has no bankruptcy, pending litigation, closures, or mergers which would interfere with providing the City of Banning with a dedicated staff to complete any projects awarded to GEOSCIENCE.

In summary, the GEOSCIENCE Team is highly qualified to provide the necessary knowledge and know-how for successful completion of the City of Banning's 2015 Urban Water Management Plan.

CONTACT INFORMATION

Dr. Dennis E. Williams
GEOSCIENCE Support Services, Inc.
620 W. Arrow Highway, Suite 2000
La Verne, CA 91750

Mailing Address: P.O. Box 220, Claremont, CA 91711

Telephone: 909.451.6650

Fax: 909.451.6638

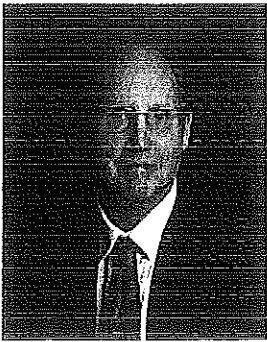
Email: dwilliams@geoscience-water.com

SECTION 2 – KEY PERSONNEL AND LEVEL OF EFFORT

A highly qualified and enthusiastic team, experienced in ground water management issues, has been assembled to work with the City for preparation and adoption of the 2015 UWMP. The GEOSCIENCE team successfully prepared and moved through the adoption of the City of Banning's 2010 UWMP. However, since that time urban water management planning has continued to develop and additional requirements are in place for the 2015 planning documents. The additional requirements will be discussed in the scope of work sections below

Dr. Dennis Williams will serve as overall Principal-In-Charge for any project awarded to GEOSCIENCE by the City of Banning. Mr. Brian Villalobos will be assigned the role of Project Manager. He will be assisted by Ms. Lauren Wicks and Mr. Leo Liu as well other GEOSCIENCE staff professionals as needed to efficiently prepare the plan in a timely manner.

The following page outlines a brief description of the personnel assigned to the work, followed by a brief biography of each staff member. Full resumes are contained in Section 6 of this proposal.



Dennis E. Williams, Ph.D., P.G., C.Hg - Principal-In-Charge

Project Assignment – Overall Technical Management/Daily Involvement in Project

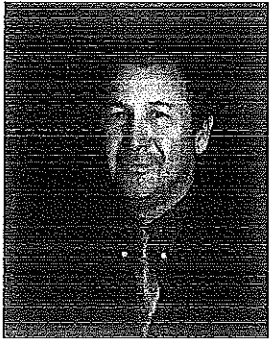
Dr. Williams will be the principal in charge and will have overall responsibility for all plan preparation. Dr. Williams has active daily contact with staff.

Dennis E. Williams, the founder and president of GEOSCIENCE Support Services has over 40 years of experience in ground water hydrology. Dr. Williams' education includes advanced degrees in ground water hydrology. Dr. Williams is a State of California Professional Geologist and Certified Hydrogeologist and a Certified Ground Water Hydrologist with the American Institute of Hydrology. Dr. Williams has also directed geohydrologic investigations domestically and worldwide which include the design and supervision of construction of over 800 deep large-scale municipal and irrigation water supply wells. He has been a consultant to the United Nations and several foreign governments. Dr. Williams is currently directing research on ground water and wells at USC's geohydrologic laboratory which houses the largest sand-tank model in the world. Dr. Williams is the author of over 30 publications on ground water and wells and was the principal author of the *Handbook of Ground Water Development* (John Wiley & Sons, 1990); the *Handbook* was awarded Honorable Mention in the Engineering Category of the Fifteenth Annual Awards for Excellence in Professional and Scholarly Publishing by the Association of American Publishers. Dr. Williams was also chief reviewer for the American Society of Civil Engineers (ASCE) *Manual of Water Well Design, Construction, Testing and Maintenance* and primary author for two chapters, *Water Well Construction, and Developing and Testing*, and of Appendix *Example of Water Well System Design* (currently in press). Dr. Williams is a contributor for three entries in the Encyclopedia of Water: "Radial Wells", "Well Tests", and "Well Screens" published by John Wiley and Sons. Dr. Williams is a technical consultant to the American Water Works Association (AWWA) Standards Committee for Wells (ANSI/AWWA A100-04). In addition he provides training seminars on well design—most recently for City of Torrance and City of Downey Engineering Divisions as well as the California Water Service Co.

Dr. Williams is a professor at the University of Southern California where, for the past 20 years, he has taught graduate level courses in geohydrology and ground water modeling. Dr. Williams has been a pioneer in ground water modeling. He developed the graduate level ground water modeling class at the University of Southern California Department of Civil and Environmental Engineering, which he taught from 1980 to 2002. Since 2002, Dr. Johnson Yeh, Senior Geohydrologist and Lead Modeler at GEOSCIENCE, has been teaching the ground water modeling class

He was also the keynote speaker at the Well Maintenance and Rehabilitation Seminar given by the California-Nevada Section, American Water Works Association and presented the paper entitled "*Well Rehabilitation: Is It Time? Is It Worth It?*" The presentation discussed the many facets of water well rehabilitation including an overview of why rehabilitation should be considered, what types of rehabilitation methods are available, and how to decide if rehabilitation is an appropriate step in a given situation.

In addition, Dr. Williams has served in the capacity of Peer Reviewer of other models for agencies such as the USGS, the Metropolitan Water District, the Monterey County Water Resources Agency, the Salton Sea Ground Water Flow Model, the Santa Clara Valley Water District, as well as providing expert witness in numerous ground water modeling projects.



Brian Villalobos, P.G., C.Hg., C.E.G. – Senior Geohydrologist

Project Assignment – Project Manager

Mr. Villalobos will provide the day-to-day project management under Dr. Williams and will be assisted by other staff as necessary.

Mr. Villalobos has 25 years (1978-1989 and 2001 until present) of professional experience in hydrogeology and environmental geology throughout the Southern California region. His specific areas of expertise are in hydrogeologic investigations, environmental hydrogeology, and engineering geology. Mr. Villalobos was project manager for the City of Banning's "Maximum Perennial Yield" Study and the City's 2010 UWMP update. Mr.

Villalobos was Project Manager for the recent Yucaipa Ground Basin "Safe Yield" and storage capacity study and Yucaipa Recharge Study conducted for the SBVMWD. In addition, he was project manager for the GEOSCIENCE portion of the City of Riverside Ground water Aquifer Storage and Recovery Project. He is currently completing the Salt and Nutrient Management Plan on behalf of the Castaic Lake Water Agency.

LAUREN CAREY - Staff Geohydrologist III

Project Assignment – Data Collection, Analysis, and Reporting

Ms. Carey will be responsible for collection, development and organization of the project data, and preparation for submittal to the City. All collected data will be used to create a project database which will which can be updated for future UWMP documents.

Ms. Carey has experience with ground water and environmental investigations performed for a number of municipalities, state agencies, and private clients throughout the Southern California region. She has currently assisting Dr. Williams with extensive data management. Her scope of GEOSCIENCE responsibilities include: QA/QC of project documents, ground water flow and transport modeling, geohydrologic investigations, ground water basin and water quality studies, artificial recharge projects. She is experienced in the fields of GIS applications, database development and management, and watershed management.

LEO LIU - Staff Geohydrologist I

Project Assignment - Data Management and Analysis

Mr. Liu has experience with assisting in groundwater management and groundwater modeling for projects throughout Southern California. He recently developed and calibrated salt loading model for the period from 2001 to 2011 for salt balance study in Southern California. He has provided assistance with determining surface water and groundwater salt balance and evaluated the impacts of six proposed projects to future water quality in six groundwater management zones in the Santa Clarita Valley. He also developed and ran predictive model runs for the period of 2012 through 2035 and analyzed the modeling results to determine the projected changes in assimilative capacity for each selected water quality constituent under No Project, Single Project and All Project conditions.

SECTION 3 – RELATED EXPERIENCE – GROUNDWATER STUDIES

Three related projects are provided below. A reference name and contact telephone number is provided with each project

Project: City of Banning 2010 Urban Water Management Plan -Update

Client: City of Banning

Reference: Mr. Art Vela, P.E. Acting Public Works Director

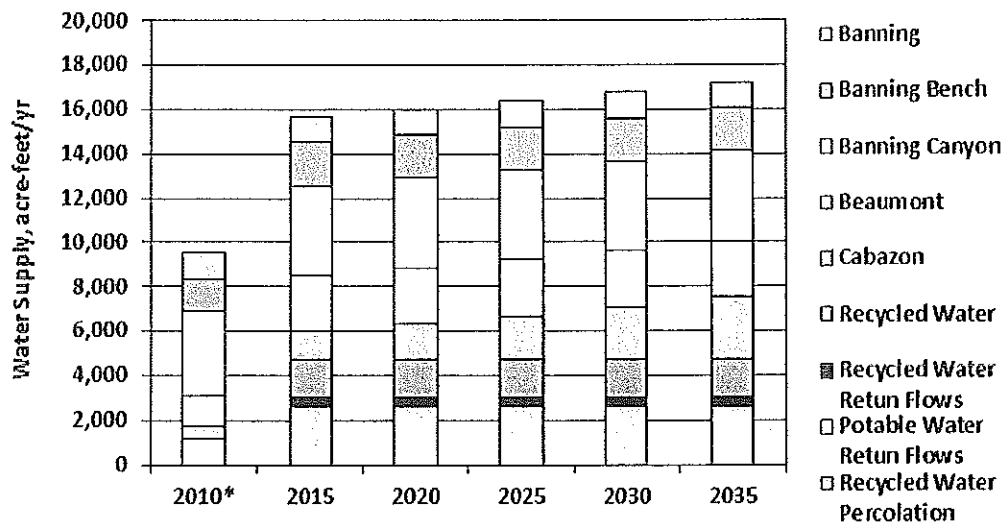
Telephone: (951) 922-3130

Date: 2011

GEOSCIENCE Project Manager: Dennis Williams/Brian Villalobos

Prepared City of Banning's 2010 Urban Water Management Document for Adoption by the California Department of Water Resources. GEOSCIENCE prepared public notice, presented the plan at public meetings, prepared responses to public comments, and worked closely with DWR staff until adoption of the 2010 UWMP update.

Projected City of Banning Water Supply



GEOSCIENCE'S ROLE

- Evaluation of Historical Population Trends for Future Population Trend Analysis
- Evaluation of Historical Water Demands for Preparation of Future Demand Analysis
- Preparation of Water Supply Reliability and Water Shortage Contingency Plan
- Evaluation of Status of the City's Demand Management Measures

- Preparation the City of Banning's Draft 2010 Urban Water Management Plan.
- Prepared Notification and Publication Schedule for Draft and Final Documents, and Prepared Public Presentation of Draft document.
- Preparation of Final 2010 UWMP and Upload Documents using the DWR Online Submittal Tool (DOST).
- Follow-Up and Response to DWR Staff until adoption of 2010 UWMP

Project: Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units and Available Water Supply from the Beaumont Basin.

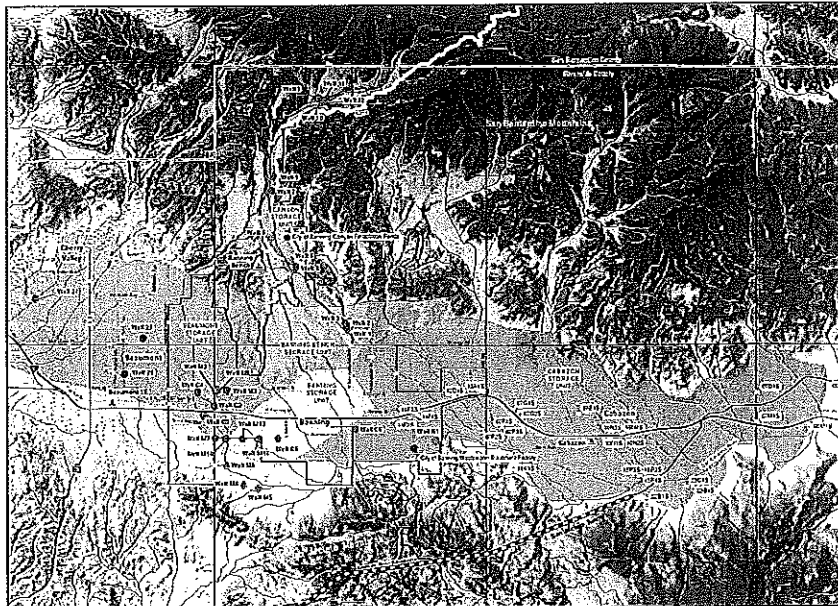
Client: City of Banning

Reference: Mr. Art Vela, P.E. Acting Public Works Director

Date: 2009-2011

GEOSCIENCE Project Manager: Dennis Williams/Brian Villalobos

On behalf of the City of Banning, GEOSCIENCE had prepared a calculation of the Maximum Perennial Yield in 2003. The Maximum Perennial Yield of a groundwater basin includes both the native "Safe Yield" of the basin along with additional water supplies that will occur as the basin area is developed, such as artificial recharge, return flows from irrigation, and stormwater capture from impervious areas. Therefore, the maximum perennial yield should be re-evaluated every five to 10 years depending on the magnitude of land use and water management changes that occur during the time period.



City of Banning Water Supply Area

In 2011, the Maximum Perennial Yield of the Banning Canyon, Banning Bench, Banning, and Cabazon Subbasins were re-calculated. Available water supply from the Beaumont Basins was also evaluated. The Updated maximum perennial yield values were used as a basis for the 2010 UWMP Water Supply Analysis.

GEOSCIENCE'S ROLE:

The scope of this investigation included:

- Comprehensive Collection of Historical Ground Water Level, Groundwater Pumping, Water Quality Data
- Review of Geologic and Geohydrologic Data for the City of Banning Water Supply Area
- Analysis of Maximum Perennial Yield of the Banning Storage Units was Conducted Using Two Different Methods for Each Subbasin for Validation.
- Evaluation of the Maximum Perennial Yield of the Cabazon Storage Unit Using the Water Balance Method.
- Evaluation of the City's Available Groundwater in Storage in the Beaumont Basin

Project: Determination of the Usable Capacity and Safe Yield for Each Sub basin within the Yucaipa Groundwater Basin Area

Clients: San Bernardino Valley Municipal Water District, Yucaipa Valley Water District, City of Yucaipa, South Mesa Water District, Western Heights Water Company, City of Redlands, and San Geronio Pass Water Agency

Reference: Mr. Bob Tincher, Manager of Engineering and Planning

Telephone: (909) 387-9215

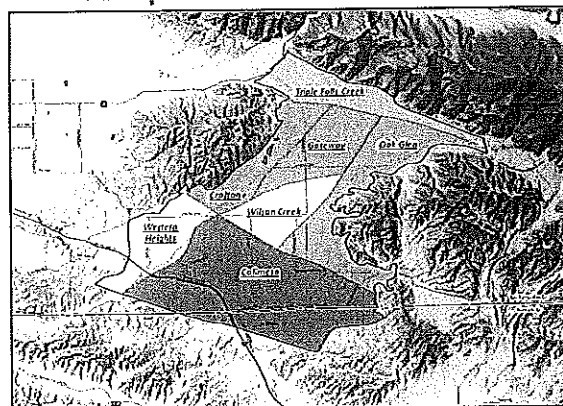
Date: 2014

GEOSCIENCE Project Manager: Dennis Williams/Brian Villalobos

Yucaipa Valley Groundwater Basin is a source aquifer providing water supply for the community via three different water purveyors. Imported water has been in used for recharging the groundwater system in the upper part of the valley during the last decade.

The Yucaipa Valley is located in a seismically active area, being located between the active San Andreas and San Jacinto Fault zones. As a result, the groundwater basin is segmented by faults into subbasins by faults. GEOSCIENCE was tasked with determining the "Safe Yield" for current land use conditions and determining the usable capacity in each subbasin for storing groundwater. To accomplish this, the boundaries of each subbasin were re-evaluated using the most recent geologic mapping and using surface geophysical methods to delineate faults which form the boundary of subbasins.

Yucaipa Groundwater Subbasins



The current safe yield was determined by comparing historical pumping with historical groundwater level changes using several methodologies. A surface water model was constructed to develop water balance terms which had previously not been qualified. The water balance for the overall groundwater basin was compared to the combined values of safe yield for each of the subbasin to provide further validation of the analysis.

GEOSCIENCE'S ROLE:

The scope of this investigation included:

- Collection of historical ground water level, Ground Water Pumping, Water Quality Data from Multiple Water Purveyors
- Geologic Analysis of the Yucaipa Ground Water Subbasins using Geophysical Surveys
- Analysis of "Safe Yield" Values for Each Subbasin was Conducted using Several Methodologies
- Construction of a surface water model for development of water balance terms
- Analysis of over 50 Lithologic Logs to Determine the Distribution of Specific Yield Laterally and Vertically for Evaluation of the Volume of Water in Storage and Usable Storage Capacity in the Vadose Zone.
- Preparation and Presentation of the Results to Project Stakeholders, to Members of the Board of the Yucaipa Valley Water District, and City Council of the City of Yucaipa

SECTION 4 – SCOPE OF WORK

We understand that the scope of work for this project includes preparing the 2015 Urban Water Management Plan-Update in accordance with guidelines currently being developed by the California Department of Water Resources (DWR). DWR has issued a preliminary outline of the 2015 UWMP guidelines. The details of the plan are still in preparation and are tentatively scheduled to be released in Mid-October 2015. Much of the requirements set forth in the 2010 UWMP Guidebook are still in effect. Currently known new requirements will be discussed in the scope sections provided below, as provided in the Draft 2015 UWMP Guidelines. However, the 2015 UWMP shall be developed according to the *2015 Urban Water Management Plans Guidebook for Urban Water Suppliers*. The draft guidebook recommends summary tables for each 2015 UWMP section. GEOSCIENCE will include summary tables as recommended, with the appropriate supporting data provided in appendices.

4.1 PRELIMINARY WORK

GEOSCIENCE prepared the 2010 UWMP. A preliminary data needs request for the 2015 UWMP preparation will be sent to the City's Project Manager, to be forwarded to the appropriate City staff. The data needs request will be followed up with a face-to face meeting to provide any clarification on data needs. Based on the meeting discussions, a formalized data needs memo identifying and clarifying all items needed, will be submitted to the City.

GEOSCIENCE will prepare a detailed schedule for project completion date prior to July 1, 2016. The schedule will include dates for public notifications and tentative date for presenting the 2015 UWMP to the City Council for adoption at or prior to June 7, 2016.

GEOSCIENCE is familiar with the pertinent data including, the Highland Springs Conference and Training Center, *Petitioner v. City of Banning, Respondent, SCC/Black Bench, LLC, Real Party* and all consolidated cases RIC 460950, RIC 461035, RIC 461069.

The Draft 2015 UWMP Guidebook outlines the following applicable changes to the Water Code since submittal of the 2010 UWMP:

- Demand Management Measures CWC Section 10631 (f) (1) and (2) – **AB 2067**
- Submittal Date – CWC Section 10621 (d) **AB 2067**
- Standardized Forms – CWC Section 10644 (a) (2) **SB 1420**
- Water Loss –Voluntary reporting of passive savings CWC Section 10631 (e) (4) **SB 1420**
- Voluntary reporting of energy intensity CWC Section 10631.2 (a) and (b) (**SB 1036**)
- Voluntary reporting of decreased reliance on the Delta- CWC Section 5003(c) (1)(C)

The changes for this UWMP will be introduced in the Executive summary of 2015 UWMP and addressed in the appropriate UWMP sections. In accordance with DWR recommendations, the 2015 UWMP will be shared with local stakeholders including the San Geronio Pass Water Agency and the Beaumont Cherry Valley Water District, both of which prepared 2010 UWMPs

The following sections of this proposal are presented in the order they will appear in the 2015 UWMP. The sections are as suggested in the Draft 2015 UWMP Guidelines and take into considerations new requirements set forth in that document.

4.2 EXECUTIVE SUMMARY

The 2015 UWMP will include an executive summary per DWR suggestion provided in Section 1.8 of the Draft guidelines. The executive summary will provide a concise overview of the 2015 UWMP.

4.3 PLAN PREPARATION

Section 1 – Plan Preparation: will include a narrative and associated tables outlining the development of the Final 2015 UWMP from start to DWR adoption. GEOSCIENCE will update the information provided in 2010 UWMP including coordination with agencies, public noticing, the availability period of the draft document, public hearing, DWR submittal date, and final adoption. The Plan Preparation section will also include a summary of relevant public comments. A discussion of regional cooperation and agreements will be added to this update to demonstrate to DWR regional cooperation in water planning.

4.4 SYSTEM DESCRIPTION

Section 2 – System Description: will be updates of service area maps and climate information as appropriate. The service area population and demographics will be updated to utilize 2010 US Census data which will allow a re-determination of the per capita water use. A preliminary review of the US Census data indicates that the population growth rate will be at a lower than previously calculated from older data. The updated population trend analysis will be used for evaluating water demands for the 2015 UWNP planning period of 2015-2040

4.5 SYSTEM WATER USE

Section 3 – System Use: will provide the results of re-tabulation and analysis of customer use by class, and update of water demand analysis based on revised population trend, and a calculation of system losses per the 2015 UWMP new requirement.

System Demand by Customer Class

The 2010 UWMP relied upon previous water uses by customer class presented in the 2005 UWMP. For the 2015 UWMP, the historic water use by customer class will be re-calculated using recent water billing data collected by the City in order to prepare the most current evaluation of water use by customer class including low income household demands. The data will be used to describe the historic and existing water use characteristics and water demands in terms of annual total production and consumption by use class (residential, commercial, industrial, institutional, parks, others) will be tabulated and described. Unit water demands (gallons/account/day) for each major use class (residential-both single family and multi-family, commercial, industrial, public/institutional, landscape) and water use by indoor and outdoor applications will be quantified to determine appropriate water demand factors for the demand analysis.

Demand Analysis

GEOSCIENCE will update water demand analyses for the City through the UWMP planning period. The update will reflect a re-calculated population growth trend considering the City's General Plan. System use will consider historical water use factors with new water use factors for each customer class developed as result from the implementation of current and future water conservation measures as well as considering, CALGreen Codes and appliance/fixture standards already in place. Indoor/outdoor water use will be assessed in consideration of current and future conservation measures.

GEOSCIENCE will prepare a technical memorandum (*recommended additional service to RFP*) presenting the tabulation of water use by class and outlining the methodology for calculating future water demands through 2040, which will then be submitted to the City's Project Manager for review, comment, and approval prior to conducting the demand analysis to be incorporated in the 2015 UWMP.

The 2015 UWMP will require additional detail in assessing System Water Use. As an example, the draft guidance document requires an assessment of system losses over the last 12-month period. Subsequent UWMP will require 5-year increment water loss evaluations. According to the draft guidance document, DWR is to provide a worksheet (spreadsheet) for reporting system losses per methodology developed by

the American Water Works Association. This document has not been made available as of the date of this proposal. However, the AWWA provides a free version of the Water Audit (Version 5). GEOSCIENCE will prepare a list of items required to populate the Water Audit spreadsheet and either the DWR modified spreadsheet or the AWWA spreadsheet will be used to complete the water loss evaluation for the 2015 UWMP.



AWWA Free Water Audit Software
Report: **WaterSheet**

WAS 4.0
August 1999, Revised January 2000

23 Click to access clipboard

24 Click to add a comment

Water Audit Report for: << Please enter system details and contact information on the instructions tab >>

Reporting Year: _____

Please enter data in the white cells below. Where available, metered values should be used. If metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (m's or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

PLEASE CHOOSE REPORTING UNITS FROM THE INSTRUCTIONS SHEET BEFORE ENTERING DATA

To select the correct data grading for each input, determine the highest grade where the utility meter or exceeds all criteria for that grade and all grades below it

_____ Enter grading in column 'E' and 'F' _____

Master Meter and Supply Error Adjustments

Pcnt	Value

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED

Volume from own sources:			
Water imported:			
Water exported:			

WATER SUPPLIED: _____ **0.000**

Master Meter and Supply Error Adjustments

Pcnt	Value

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION:

Billed metered:			
Billed unmetered:			
Unbilled metered:			
Unbilled unmetered:			

AUTHORIZED CONSUMPTION: _____ **0.000**

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Click here for help using option buttons below

Percent **Value**

1.25%

Use buttons to select percentage of water supplied or value

WATER LOSSES (Water Supplied - Authorized Consumption)

0.000

Apparent Losses

Unauthorized consumption:			
Customer metering inaccuracies:			
Systematic data handling errors:			

Apparent Losses: _____ **0.000**

Percent **Value**

0.25%

Use buttons to select percentage of water supplied or value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: _____ **0.000**

WATER LOSSES: _____ **0.000**

Percent **Value**

0.25%

Use buttons to select percentage of water supplied or value

NON-REVENUE WATER

NON-REVENUE WATER: _____ **0.000**

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:			
Number of active AND inactive service connections:			
Service connection density:			

Are customer meters typically located at the curbside or property line? Select: _____

Average length of customer service line: _____

Average operating pressure: _____

AWWA Water Audit Reporting Worksheet

4.6 BASELINES AND TARGETS

Section 4 – Baselines and Targets: will utilize the analysis from the previous sections to show that SBX7-7 targets in gallons per capita per day (GPCD) for 2015 have been met or exceeded and that the required 20% by 2020 conservation target will be met and exceeded by 2020. Data will be submitted in the standardized tables to be provided by DWR in the final guidance document. The working tables presenting the supporting documentation will be provided in an appendix, with summary tables of the baseline and targets included in the text of Section 4 as well as the executive summary. GEOSCIENCE used the Target 1 Method for determining the 20 x 2020 water use targets. However, new methods presented in the 2015 Guidebook will be evaluated to determine whether Target Method 1 is the most appropriate for the 2015 UWMP target calculation.

4.7 SYSTEM SUPPLIES

Section 5 – System Supplies: will provide a review and discussion regarding the City's water sources, water rights, groundwater, transfer opportunities, recycled water opportunities, future water projects, and drought planning. The water supply availability for the 2015 UWMP relied on the 2011 Maximum Perennial Studies prepared by GEOSCIENCE. For this update, GEOSCIENCE will update the basin

yield estimates for Banning Canyon, Banning Bench, and Banning Storage Units prepared in 2011 using up to date information to be collected for the 2015 UWMP. In addition, an update of the City's projected Beaumont Basin storage account will be prepared in consideration of the recently updated calculation of the "Safe Yield" by the Beaumont Basin Watermaster. GEOSCIENCE will provide an update of the storage units as an addendum to the Maximum Perennial Yield report to be included as an appendix in the 2015 UWMP.

This section will describe verifiable current water supply sources, provide a review and recommendations for potential additional natural sources of water, review potential water volumes from conservation reported in Section 3, establish verifiable water supply sources from purchases or participation in conjunctive use project, and establish verifiable current and projected use of recycled water within the service area.

4.8 WATER SUPPLY RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING

Section 6 – Water Supply Reliability and Water Shortage Contingency Planning: The 2010 UWMP water supply reliability and water shortage contingency planning section will be updated by: 1) using the updated basin yield values, 2) by examining and addressing the state of the basins as a result of the current long-term drought, and 3) describing any additional contingency plans that the City has adopted during the interim period between UWMPs. GEOSCIENCE will provide an updated analysis and quantifying and describing water supplies and demands for normal, single dry-year and multiple dry-years. The section will include an analysis and description of supply versus demand, an updated drought contingency plan, assessment of the reliability of water supplies, and an analysis and description of historical and current water quality from the supply sources. This Section will provide a table summarizing the minimum water supply for the next three years (i.e. 2016, 2017, and 2018). The minimum water supply will be based on multiple dry-year hydrology.

4.9 DEMAND MANAGEMENT MEASURES

Section 7 – Demand Management Measures. The 2010 UWMP addressed the implementation of 14 Demand Management Measures (DMMs). In accordance with recent changes to the Water code, the 2015 UWMP guidance has reduced the number of DMMs to six, along with an "other" category to allow the water purveyor to report activities in place or planned that conserve water. The seven DMM categories are:

- (i) Water waste prevention ordinances.
- (ii) Metering.
- (iii) Conservation pricing.
- (iv) Public education and outreach.
- (v) Programs to assess and manage distribution system real loss.
- (vi) Water conservation program coordination and staffing support.
- (vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

Therefore, the 2015 UWMP will be updated to incorporate all of the City's water conservation activities into the 2015 UWMP DMM categories and describe all activities and results of activities that have occurred since the 2010 UWMP and the on-going plans for implementation of the DMMs for the 2015 UWMP planning period. The results of implementing DMMs and attaining the 2020 water use targets will be addressed in this section.

4.10 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

The 2015 UWMP process will require the following steps:

- Notice of Public Hearing
- Public Hearing and Adoption
- Plan Submittal
- Public Availability
- Plan Implementation

A narrative of the process, including supporting documentation such as newspaper notices, and public hearing agendas will be provided in Section 1 – Plan Preparation.

The proposed schedule for the development of the 2015 UWMP is provided in Section 5 of this proposal, and briefly summarized here:

Notice of Public Hearing – 60 days before the public hearing presenting the review of the Draft 2015 UWMP, a notice will be sent to local cities and counties providing the location of the 2015 UWMP for inspection and the time and place of the public hearing. In addition, the public will be notified of the availability of the 2015 UWMP for inspection and time and place of the public hearing. The noticing shall be accomplished publicly using the newspaper for two consecutive weeks before the public meeting with a minimum of 5-days between that second weekly notice and the public hearing. However, in accordance with the City's RFP, a public meeting will be held for public comment, followed by a second meeting for adoption of the 2015 UWMP. Both meetings will be noticed to the public as described above.

Public Hearing and Adoption – The public hearing should provide an opportunity for the public to provide input on the 2015 UWMP. The public meeting and the adoption meeting can be held on the same day provided that the public meeting occurs prior to the adoption meeting. An adoption resolution from the City Council will be required before submittal of the 2015 UWMP to DWR. GEOSCIENCE will prepare a summary of the 2015 UWMP to present to the public and City Council at the public hearing.

Plan Submittal – GEOSCIENCE will submit the 2015 UWMP to DWR within 30 days of adoption of the plan by City Council. The 2015 UWMP will be delivered as an electronic copy. In addition, an electronic submittal will be uploaded to an online submittal tool to be developed by DWR. Hard copies of the adopted 2015 UWMP will be delivered to the California State Library, and the County of Riverside,

Public Availability – The adopted 2015 UWMP will be made available to the public at a public counter and/or on the City's website.

Plan Implementation – In consultation with City staff, GEOSCIENCE will prepare a 2015 UWMP implementation plan and schedule. The implementation will summarize data described in previous chapters and will be presented as Section 8 in the 2015 UWMP. The implementation plan will address the following:

- Baselines and Targets,
- Actions to Encourage and Optimize Future Recycled Water Use
- Future Water Projects,
- Supplementing Inconsistent Sources,
- Minimum Supply Next Three Years, and
- Demand Management Measures

4.11 DELIVERABLES

GEOSCIENCE will provide: Six (6) hard copies and an electronic (PDF) copies of the Draft 2015 UWMP. Hard copies shall also be sent to regional agencies as directed by the City for comment.

GEOSCIENCE will provide: Six (6) hardcopies and electronic copies (Word and PDF) of the adopted Final 2015 UWMP: Hard copies submitted to the DWR, the California State Library, and the County of Riverside. In addition electronic submittals will be uploaded to the DWR online submittal tool when it is available.

GEOSCIENCE will provide all supporting documentation used to prepare the 2015 UWMP including: GIS files used, word files used, excel files used, documentation detailing any assumptions, documentation showing how calculations were derived, methodology for unit demand analysis, methodology for service area population, methodology for residential and non-residential growth.

ADDITIONAL SERVICES

- 1) GEOSCIENCE recommends preparation of a Technical Memorandum presenting a tabulation of water use by class and outlining the methodology for calculating future water demands through 2040. The TM will be submitted to the City's Project Manager for review, comment, and approval prior to conducting the demand analysis to be incorporated in the 2015 UWMP.
- 2) GEOSCIENCE recommends preparation of an update analysis to confirm the maximum perennial yield values developed by GEOSCIENCE in 2011. The update will allow an assessment of the current condition of the storage units in light of the existing dry hydrologic period using current data collected for the 2015 UWMP. The update will be prepared and submitted as an addendum letter to the 2011 Maximum Perennial Yield report to be included as a supporting Appendix for available water supply.

SECTION 5 – SCHEDULE

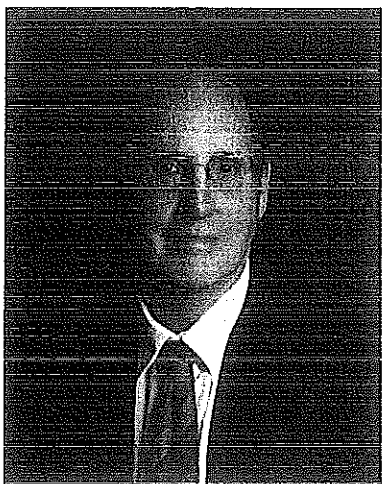
Project Work Period From Authorization to Proceed																																
Description		Nov	Dec-15				Jan-16				Feb-16				Mar-16				Apr-16				May-16				Jun-16				Jul-16	
	Week:	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3			
	Authorization to Proceed																															
	Data Collection and Review																															
	Preparation of Draft 2015 UWMP																															
	Preparation of Final 2015 UWMP																															
	Submittal of Final 2015 UWMP to DWR and Stakeholders																															
	Demand Analysis TM (Optional)																															
	Update of Maximum Perennial Yield Values (Optional)																															
	City Review of Demand Analysis TM (Optional) and Draft and Final 2015 UWMP																															
	Public and Staff Progress Meetings	Kick Off					2nd				3rd				4th				5th				6th				Public Meeting	7th	Adoption Hearing			

SECTION 6 – RESUMES

The resumes for the project team members listed below are provided behind this cover sheet.

GEOSCIENCE Support Services Inc.

1. Dennis E. Williams, Ph.D., PG, CHG
2. Brian Villalobos, PG, CHG, CEG
3. Lauren Wicks, MA, GIT
4. Leo Liu, MS



GEOSCIENCE

**DENNIS E. WILLIAMS,
PH.D, PG, CHG**

President/Principal Geohydrologist

Dr. Dennis Williams, founder and president of the Southern California based firm GEOSCIENCE Support Services, Inc. has over 40 years of experience in ground water hydrology. During that time he has directed geohydrologic investigations domestically and worldwide which includes the design and supervision of over 1,000 deep large-scale municipal water supply wells. He has been a consultant to the United Nations and several foreign governments, is a research professor at the University of Southern California's Civil and Environmental Engineering Department, and has taught graduate level courses in geohydrology and ground water modeling since 1980. Dr. Williams also directs research on ground water and wells at USC's geohydrologic laboratory which houses the largest sand-tank model in the world. Dr. Williams is author of over 50 publications on ground water and wells and was the principal author of the Handbook of Ground Water Development (John Wiley & Sons, 1990), and chief reviewer for the American Society of Civil Engineers (ASCE) Hydraulics of Wells (2014), and author of Ch 13 (Slant Wells) in the book Intakes and Outfalls for SWRO Desalination Facilities (Springer 2015). Dr. Williams also serves on many expert and blue ribbon panels for the ground water industry. Dr. Williams pioneered the use of subsurface intakes using slant wells for desalination feed water supply having constructed the first slant wells beneath the ocean near Dana Point and Monterey, CA. Dr. Williams has been qualified to testify as an expert in ground water hydrology (wells, ground water supply, development, and management) in civil litigation in California Superior Courts, United States District Courts in California and New Mexico, and the International Court of Arbitration, International Chamber of Commerce in Paris, France. Dr. Williams has been involved in and directed all ground water projects conducted by GEOSCIENCE over the past 37 years.

Years of Experience: >40
Years with GEOSCIENCE: 37

Education:

B.S., Geology. University of
Redlands

M.S., Ground Water Hydrology.
New Mexico Institute of
Mining and Technology

Ph. D., Hydrology. New Mexico
Institute of Mining and
Technology

Professional Registrations:

California Professional Geologist
(No. 461)

Certified California Hydrogeologist
(No. 139)

Certified Ground Water

Hydrologist (American Institute
of Hydrology) (No. 355)

PROFESSIONAL AFFILIATIONS:

- American Water Works Association
- Member AWWA National Water Well Standards Committee
- American Society of Civil Engineers
- National Water Well Association
- Orange County Water Association
- Association of Special Districts – San Bernardino County
- American Institute of Hydrology
- Member Industry Advisory Committee – USC Department of Civil and Environmental Engineering

EXPERT / BLUE RIBBON PANELS / PEER REVIEW:

Independent Advisory Panel – IEUA, Recycled Water Recharge/NWRI
Expert Panel/NWRI/CDPH BDOC - Biodegradable Dissolved Organic Carbon (BDOC) as a suitable alternative surrogate to Total Organic Carbon (TOC) to assess the removal of unregulated wastewater-derived organics from recycled water to be used for groundwater recharge.

Peer Review – Riverside Arlington Ground Water Model-City of Riverside

Peer Review USGS Bunker Hill Basin Ground Water Model - USGS

Peer Review USGS Ground Water Flow Model of Beaumont Storage Unit, BCVWD

Peer Review of flow model developed for the Santa Clara Valley Water District.

Head of Taskforce for a Ground Water Model which included input from the USGS, Stetson Engineers, Rancho California Water District, the United States Marines at Camp Pendleton, and the Riverside County Watermaster.

Peer Review Orange County Water District Ground Water Model – Irvine Ranch Water District

Peer Review of a Ground Water Surface Model for the Monterey County Water Resources Agency.

Peer Review of Tetra Tech/Coachella Valley Water District and the Imperial Valley Irrigation District-Salton Sea Ground Water Model

Ground Water Replenishment System Expert Panel – Orange County Water District

Member of the Upper Santa Clara River Chloride TMDL Technical Advisory Panel

West Basin Expert Panel – Injection of 100% Recycled Water into the West Coast Basin Barrier

Salinas Valley -- White Paper Expert Panel - Monterey County Water Resources Agency

Azusa Landfill Taskforce – Head of MWD's Technical Team

PROFESSIONAL RECOGNITION – AWARDS:

Mathematics (Pi Mu Epsilon)

Earth Sciences (Sigma Gamma Epsilon)

2008 National Ground Water Association's Outstanding Ground Water Project Award for the Beaumont Cherry Valley Water District Recharge and Recreation Facility Project

2004 Research Achievement Award from the California Water Environment Association (Desert and Mountain Section) for the pilot scale artificial recharge testing of the Big Bear Area Regional Wastewater Agency's Recycled Water Artificial Recharge and Recovery Study

The Association of American Publishers' Honorable Mention in the Engineering Category of the Fifteenth Annual Awards for Excellence in Professional and Scholarly Publishing awarded to Dr. Williams in 1991 for his authorship of the Handbook of Ground Water Development (John Wiley & Sons, 1990)

TRAINING SEMINARS:

- LADWP, Injection Wells, June 2014
- Rancho California Water District, Siting, Well Design , Testing, Mar,2014
- Irvine Ranch Water District, Well Rehabilitation Workshop, 2012
- Well Design, Training Seminar for Webb Associates, September 2011
- City of Torrance, Well Design Workshop, 2009
- Well Design, California Water Service Company Employees, San Jose, California. 2002, 2005.
- Basic Geohydrology, Los Angeles Regional Water Quality Control Board. July 30, 1997.
- Ground Water Development, Government of Vietnam, Hanoi. March 14-16, 1996.

PROFESSIONAL EXPERIENCE:

1978 to Present - Founder and President, GEOSCIENCE Support Services, Inc.

2001 to Present - Part-time Research Professor in Civil and Environmental Engineering Department, University of Southern California

1980 to 2001 - Part-time Instructor in Civil and Environmental Engineering and Earth Sciences Departments, University of Southern California, Los Angeles, California

1977 to 1980 - Consultant to the United Nations UNDP, United Nations Development Programme, India

1976 to 1978 - Special Advisor to the Ministry of Energy, Government of Iran, Iran

1973 to 1978 - Chief Hydrologist / General Manager, Agro-Water Consulting Engineers, Iran

1971 to 1973 - Project Manager, Louis Berger International Inc., Iran

1972 to 1974 - Special Consultant to the United Nations UNDP, United Nations Development Programme, India

1968 to 1971 - Engineering Geologist / Hydrologist, Los Angeles Department of Water and Power, Los Angeles, California

1970 - Instructor in Civil Engineering Department

Part-time Instructor in Hydraulic Engineering, Water Supply Engineering, Engineering Hydrology and Water Quality, California State Polytechnic University, Pomona, California

1966 to 1968 - Graduate Research Assistant, New Mexico Institute of Mining and Technology, Socorro, New Mexico

1965 to 1966 - Civil Engineering Assistant, Los Angeles Department of Water and Power, Los Angeles, California

1962 to 1965 - Graduate Research Assistant, New Mexico Institute of Mining and Technology, Socorro, New Mexico

PROFESSIONAL PUBLICATIONS:

- Author of Ch. 13, Slant Well Intake Systems: Design and Construction, Chapter in Book Intakes and Outfalls for Seawater Reverse Osmosis, Editor, Tom Missimer, et al., 2015
- Chief Reviewer and author for the American Society of Civil Engineers International Manual on Well Hydraulics. Primary author for two chapters, Water Well Construction, and Developing and Testing, and of Appendix in Example of Water Well System Design. July, 2014.
- Desalination And Groundwater Subsurface Intakes, Groundwater Law An American Groundwater Trust Conference, Marina Del Rey May 2014
- Subsurface Intakes – Latest Developments In Slant Well Technology, AWWA/AMTA Membrane Conference, March 2014
- Drawdown Distribution in the Vicinity of Nonvertical Wells, Ground Water, Vol 51, No 5, Sep-Oct, 2013
- Hydraulic Fracturing Practices and Concerns, Inland Counties Water Association Meeting, November 13, 2013
- Elimination Of Desalination Pre-Treatment Using A Slant Well Feed water Supply, AWWA, Source, 2012
- Design of Slant and Vertical Wells for Desalination Feed water Supply, IDA, Perth, AUS, Sep 2011

- Understanding Well Efficiency, AWWA, Nov 2010
- Is now the time and is it worth it – Well Rehab, AWWA, Nov 2010
- Slant Well Application for Desalination Intake, AWWA, Mar 2010
- Subsurface Intake Feasibility, USTDA-Chilean Gov., Mar 2010
- Well Rehabilitation: Is It Time? Is It Worth It? Paper presented at American Ground Water Trust, Lakewood, CA, 2-Oct-08. Presentation on why and when well rehabilitation should be considered.
- Well Siting and Design, University of California at Riverside, Extension Geology Continuing Education Series Groundwater and Related Issues, March 10, 2007
- Results of Drilling, Construction, Development and Testing of Dana Point Ocean Desalination Project Test Slant Well. Article, NGWA Horizontal Wells Newsletter, Jan 2007
- Use of Wells to Provide Water for Seawater Desalination Systems. Paper presented at 15th annual GRA meeting San Diego, CA, 22-Sep-06.
- Well Rehabilitation: Is It Time? Is It Worth It? Paper presented at AWWA CA-NV, May 17, 2005 in Lakewood, California. Presentation on why and when well rehabilitation should be considered.
- The Encyclopedia of Water. Contributor for three entries in the Encyclopedia, Radial Wells, Well Tests, and Well Screens. To be published by John Wiley and Sons in 2005.
- Dealing with Emerging Ground Water Contaminants: An Engineer's Perspective. Presented at Confirming Legal Education for Water Law Professionals, sponsored by the Association of California Water Agencies, September 22-23, 2004.
- Pilot Study to Determine the Feasibility of Artificial Recharge of Recycled Water in Surface Spreading Basins. Paper presented at the 11th Biennial Symposium on Ground Water Recharge, Arizona Hydrological Society, Salt River Project, U.S. Water Conservation Laboratory and Arizona Department of Water Resources, June 5-7, 2003, Tempe, Arizona
- Author Groundwater Pumping Methods in the Encyclopedia of Water Science. July 2003.
- Natural Recharge in the Cadiz Area, San Bernardino County, California. Paper presented at and published in the Symposium Proceedings of the Natural Recharge of Groundwater Symposium, sponsored by the Arizona Hydrological Society, Arizona Department of Water Resources, Salt River Project, U.S. Water Conservation Laboratory of USDA-ARS, and U.S. Geological Survey. June 2000, Tempe, Arizona. Presentation on the methods used to determine a range of recharge estimates for the Fenner Basin.
- The Cadiz Ground Water Storage and Dry-Year Supply Program.
 - Paper presented at the Annual Fall Conference California-Nevada Section of the AWWA. October 1999, San Diego, California.

- Paper presented at the Innovations in Artificial Recharge Conference, Association of Ground Water Agencies, American Ground Water Trust. May 2000, Ontario, California.
- Presentation of Pilot Recharge test results of the Cadiz project, a Metropolitan Water District Recharge and Recovery Program involving storage and retrieval of up to 150,000 acre-ft/yr via a 30 mile pipeline from the Colorado River Aqueduct.
- Field and Laboratory Research on Well Rehabilitation. Paper presented at the Water Well Maintenance and Rehabilitation Seminar, California-Nevada Section of the AWWA. May 1999.
- Well Rehabilitation: Is It Time? Is It Worth It? Paper presented at AWWA CA-NV, May 26, 1999 in Lakewood, California (also at AWWA Stockton May 1998). Presentation on the many facets of water well rehabilitation and an overview of why rehabilitation should be considered, what types of rehabilitation methods are available, and how to decide if rehabilitation is an appropriate step in any given situation.
- Corrosion Field Test of Steels Commonly Used in Well Casing and Screen. Paper presented at AWWA CA-NV. May 27, 1999. Lakewood, California.
- Training Seminar on Basic Geohydrology. Presented to the Los Angeles Regional Water Quality Control Board. July 1997.
- Modern Techniques in Ground Water Management. Paper presented at the AWWA Annual Conference. 1997. Atlanta, Georgia.
- International Study on Relining. 84 Case Studies. 1997. Paper prepared for court testimony in international arbitration. Unpublished until case is resolved.
- Seminar on Ground Water Development. Presented to the Government of Vietnam. Hanoi, Vietnam. March 1996.
- Pilot-Scale Field Test to Determine Pathogen Removal Beneath an Artificial Recharge Basin. Paper ASCE International Symposium on Artificial Recharge of Ground Water. July 17 22, 1994.
- Sea-Water Intrusion into Pleistocene Aquifers in the Dominguez Gap Area of Southern California. South Coast Geological Society. Fall 1992.
- Author of five chapters Handbook of Ground Water Development. Published by John Wiley and Sons, New York. January 1990. (Author of Chapters: Ground Water Movement, Hydraulics of Wells, Well and Aquifer Evaluation from Pumping Tests, Ground Water Management, and Artificial Recharge).
- Ground Water Modeling in the Orange County Area. Geological Society of America Guidebook. Hydrogeology of Southern California, Cordilleran Section, 82nd Annual Meeting. March 25 28, 1986.
- Modern Techniques in Water Well Design. Journal of the AWWA. September 1985.

- Computer Assisted Ground Water Management in Orange County, California. Presented at the American Society of Civil Engineers National Conference on Environmental Engineering. June 25 27, 1984. Los Angeles, California.
- Conjunctive Use and Ground Water Management in Orange County California. Paper presented at the NWWA Western Regional Ground Water Management Conference. October 24, 1983.
- The Well/Aquifer Model-Initial Test Results. Published by the Roscoe Moss Company. 1981. Los Angeles, California.
- The Dashte-Naz Ground Water Barrier and Recharge Project. Presented at the Third National Ground Water Quality Symposium. Las Vegas, Nevada. September 1976. Also published in Ground Water. January-February 1977.
- Digital Computer Models and Ground Water Basin Management. Presented at the International Symposium on Development of Ground Water Resources, sponsored by I.H.D. November 1973. Madras, India.
- Gasoline Pollution of a Ground Water Reservoir. A paper presented at the First National Ground Water Quality Symposium. August 1971. Also published in Ground Water. Nov Dec 1971.
- Modern Techniques in Ground Water Studies. A paper presented at the 91st Annual Conference of the AWWA. June 1971. Also published in the Journal of the AWWA. July 1971.
- Ground Water Development and Management in the Owens Valley. Presented at the 90th Annual Conference of the AWWA. October 1970.
- Ground Water Basin Management. A paper presented at the California Section Meeting AWWA. September 1970. (Consulting Engineers Panel).
- Use of Alluvial Faults in the Storage and Retention of Ground Water. A paper presented at the Annual Fall Meeting of the AGU. December 1969. Also published in Ground Water. September October 1970.
- Management of Gasoline Leaks - A Positive Outlook. A paper presented at the NWWA Seventh National Ground Water Quality Symposium. Sep 27, 1984. Las Vegas, Nevada.
- Geohydrologic Investigation of the Owens Valley Ground Water Reservoir.
- Ph.D. Dissertation. New Mexico Institute of Mining and Technology. June 1969.
- Viscous-Model Study of Ground Water Flow in a Wedge-Shaped Aquifer. Water Resources Research, Volume 2, Third Quarter 1966.
- Cenozoic Rocks of Socorro Valley and Vicinity. New Mexico Geologic Society Guidebook. 1963.

PROFESSIONAL PRESENTATIONS AND TRAINING SEMINARS:

- Well Siting and the Prediction of Well Performance. Ground Water Wells and Pumping Efficiency Workshop, California-Nevada Section AWWA, November 4, 2009.
- Subsurface Intake System Feasibility. Alden Desalination Intake/Outfall Workshop. El Segundo, California. October 15, 2009.
- Slant Wells and Other New Techniques in Well Design. Association of San Bernardino County Special District. September 28, 2009.
- Use of Slant Water for Desalination Feed water Supply – Case Study Dana Point. Pre-Conference Membranes for Water Treatment: Federal and State Research Advances. American Membrane Technology Association Conference. July 13, 2009.
- Well Design Construction, Development and Testing Training Seminar. City of Torrance, Engineering Division, Public Works Department. February 25, 2009.
- Overview of the Dana Point Desalination Project, GRA Southern Branch, San Juan Capistrano, CA, May 14, 2008
- Impacts of Implementing the Proposed SARWQCB Resolution on Conjunctive Use in the San Bernardino Basin Area, 2006 Water Policy & Law Briefing, July 20, 2006
- Well Design Training Seminar. Conducted a 1½ day Well Design Seminar for California Water Service Company employees that operate wells throughout the State of California. June 8-9 2005. San Jose, California.
- Pumping Tests and Data Analysis. Paper presented at the America Water Works Association California – Nevada Section Well Design & Construction Seminar. May 1, 2002. Lakewood, California.
- Well Design Training Seminar. Conducted a two-day Well Design Seminar for California Water Service Company employees that operate wells throughout the State of California. April 18 19, 2002. San Jose, California.
- Natural Recharge in the Cadiz Area, San Bernardino County, California. Paper presented at and published in the Symposium Proceedings of the Natural Recharge of Ground Water Symposium, sponsored by the Arizona Hydrological Society, Arizona Department of Water Resources, Salt River Project, U.S. Water Conservation Laboratory of USDA-ARS, and U.S. Geological Survey. June 2, 2000. Tempe, Arizona. Presentation on the methods used to determine a range of recharge estimates for the Fenner Basin.
- The Cadiz Ground Water Storage and Dry-Year Supply Program.
 - Paper presented at the Innovations in Artificial Recharge Conference, Association of Ground Water Agencies and the American Ground Water Trust. May 4-5, 2000. Ontario, California.

- Paper presented at the Annual Fall Conference California-Nevada Section of the AWWA. October 27, 1999. San Diego, California.
- Presentation of Pilot Recharge test results of the Cadiz Project, a Metropolitan Water District Recharge and Recovery Program involving storage and retrieval of up to 150,000 acre-ft/yr via a 30 mile pipeline from the Colorado River Aqueduct.
- Paper presented at the Innovations in Artificial Recharge Conference, Association of Ground Water Agencies and the American Ground Water Trust. May 4-5, 2000. Ontario, California.
- Paper presented at the Annual Fall Conference California-Nevada Section of the AWWA. October 27, 1999. San Diego, California.
- Field and Laboratory Research on Well Rehabilitation. Paper presented at the Water Well Maintenance and Rehabilitation Seminar, California-Nevada Section of the AWWA. May 27, 1999.
- Corrosion Field Test of Steels Commonly Used in Well Casing and Screen. Paper presented at the Water Well Maintenance and Rehabilitation Seminar, California-Nevada Section, American Water Works Association. May 27, 1999. Lakewood, California.
- Dr. Williams was the keynote speaker at the Water Well Maintenance and Rehabilitation Seminar, California-Nevada Section, American Water Works Association in May 1998 (AWWA in Stockton) and May 1999 Workshop (AWWA in Lakewood), and presented the paper entitled "Well Rehabilitation: Is It Time? Is It Worth It?" The presentation discussed the many facets of water well rehabilitation including an overview of why rehabilitation should be considered, what types of rehabilitation methods are available, and how to decide if rehabilitation is an appropriate step in a given situation.
- In 1997, Dr. Williams conducted an International Study on Relining. Eighty-four case studies were gathered and analyzed. A paper was prepared for court testimony in international arbitration, aimed at educating the Tribunal in methods of rehabilitation for large-capacity water wells. The paper remains unpublished until the case is resolved. The case involved 126 wells in northern Africa, 60 of which have failed due to corrosion. Dr. Williams also prepared a rehabilitation plan for the entire well field.
- Training Seminar on Basic Geohydrology. Presented to the Los Angeles Regional Water Quality Control Board. July 30, 1997.
- Modern Techniques in Ground Water Management. Paper presented at the Annual Conference, American Water Works Association. June 19, 1997. Atlanta, Georgia.
- A Case Study of Unprecedented Well Failures and Rehabilitation Efforts. Paper presented at the Well Construction, Operation, and Rehabilitation Seminar, American Water Works Association. September 20, 1996.

- Seminar on Ground Water Development. Presented to the Government of Vietnam. March 14 16, 1996. Hanoi, Vietnam.
- Aquifer Pump Tests and Data Analysis. Presented at the California-Nevada Section Water Well Construction Workshop, American Water Works Association. March 22, 1995.
- Pilot-Scale Field Test to Determine Pathogen Removal Beneath an Artificial Recharge Basin. Presented at the Second International Symposium on Artificial Recharge of Ground Water, American Society of Civil Engineers. July 17 22, 1994.
- Seawater Intrusion into Pleistocene Aquifers in the Dominguez Gap Area of Southern California. Paper presented to the South Coast Geological Society. August 1992.
- Ground Water Modeling in the Orange County Area. Paper presented at the Cordilleran Section, 82nd Annual Meeting, Geological Society of America Guidebook. Hydrogeology of Southern California. March 25-28, 1986.
- Management of Gasoline Leaks - A Positive Outlook. A paper presented at the NWWA Seventh National Ground Water Quality Symposium. September 27, 1984. Las Vegas, Nevada.
- Computer Assisted Ground Water Management in Orange County, California. Presented at the National Conference on Environmental Engineering, American Society of Civil Engineers. June 25-27, 1984. Los Angeles, California.
- Conjunctive Use and Ground Water Management in Orange County, California. Paper presented at the Western Regional Ground Water Management Conference, National Water Works Association. October 24, 1983.
- Seminar on Ground Water Development. Presented to the Asian Institute of Technology. Bangkok, Thailand. 1980.
- The Dashte-Naz Ground Water Barrier and Recharge Project. Presented at the Third National Ground Water Quality Symposium. September, 1976. Las Vegas, Nevada. Also published in Ground Water. January-February 1977.
- Digital Computer Models and Ground Water Basin Management. Presented at the International Symposium on Development of Ground Water Resources, sponsored by I.H.D. November 1973. Madras, India.
- Gasoline Pollution of a Ground Water Reservoir. A paper presented at the First National Ground Water Quality Symposium. August 1971. Also published in Ground Water. November-December 1971.
- Modern Techniques in Ground Water Studies. A paper presented at the 91st Annual Conference, American Water Works Association. June 15, 1971. Also published in Journal of the American Water Works Association. July 1971.

- Ground Water Development and Management in the Owens Valley. Presented at the 90th Annual Conference, American Water Works Association. October 1, 1970.
- Use of Alluvial Faults in the Storage and Retention of Ground Water. A paper presented at American Geophysical Union National Fall Meeting. December 15-18, 1969. Also published in Ground Water, Vol. 8, No. 5. September-October 1970.
- Ground Water Basin Management. A paper presented at the California Section Meeting AWWA. September 1970. (Consulting Engineers Panel).
- Geohydrologic Investigation of the Owens Valley Ground Water Reservoir.
- Ph.D. Dissertation. New Mexico Institute of Mining and Technology. June 1969.
- Viscous-Model Study of Ground Water Flow in a Wedge-Shaped Aquifer. Water Resources Research, Volume 2, Third Quarter 1966.
- Cenozoic Rocks of Socorro Valley and Vicinity. New Mexico Geologic Society Guidebook. 1963.

PROFESSIONAL EXPERIENCE

GEOSCIENCE Support Services, Inc., Claremont, California

January 1978 to Present. Founder and President of GEOSCIENCE Support Services Inc., a California Corporation specializing in geohydrologic studies leading to development and management of ground water resources. GEOSCIENCE's client list includes most of the major Water Districts and agencies in the Southern California area, as well as clients in South America, Europe, and the Middle and Far East). Dr. Williams has also served as an expert witness on numerous legal issues (including arbitration, mediation, and court trials) for both domestic and international clients.

UNIVERSITY OF SOUTHERN CALIFORNIA, Civil and Environmental Engineering Department, Los Angeles, California

August 2001 to Present. Part-Time Research Professor. Currently teaching graduate-level class in geohydrology and directing research at USC's geohydrology laboratory related to well design and rehabilitation.

UNIVERSITY OF SOUTHERN CALIFORNIA, Los Angeles, California

Civil and Environmental Engineering and Earth Sciences Departments
1980 to August 2001. Part-time Instructor. Taught graduate-level classes in geohydrology and ground water modeling.

UNITED NATIONS DEVELOPMENT PROGRAMME, India

November 1979 to November 1980 - Consultant to the United Nations (UNDP). Expert member of a UNDP team sent to Madras, India to develop a conjunctive use water supply plan designed to meet the needs of the City of Madras until the year 1990 (population: 8 million).

UNITED NATIONS DEVELOPMENT PROGRAMME, India

September 1977 to October 1978. Consultant to the United Nations Development Programme (UNDP). Retained as a ground water modeling expert on a team of UNDP experts conducting a feasibility study on the Ghaggar River Basin (Northwest India). Project responsibilities included evaluation of raw data and direction of local Indian Government personnel in the gathering, reduction and organization of data necessary to construct a digital computer ground water model of the Ghaggar River Basin.

CONSULTANT TO THE GOVERNMENT OF IRAN, Iran

March 1976 to March 1978. Special advisor to the Ministry of Energy, Government of Iran on hydrological problems involving water resources evaluation and development. Directed teams of Iranian government personnel in the conduct of feasibility investigations of various basins for purposes of total water resources development. Also provided guidance in development of a computer database for the collection, organization, storage and retrieval of hydrologic data.

AGRO-WATER CONSULTING ENGINEERS, Tehran, Iran

July 1973 to November 1978. Chief Hydrologist/General Manager. In charge of managing the activities of a consulting engineering firm specializing in planning, design and supervision of construction of large-scale irrigation project development. Specific duties included technical and administrative duties for feasibility, final design and supervision of construction and management for irrigation development projects in Iran. Set up a complete mini-computer center for engineering and management computer programs. Directly supervised 30 civil engineers and various other technical personnel as required on various irrigation projects (geologists, hydrologists, soil mechanics experts, surveyors, agronomists and planners).

Designed an advanced supervisory control system for the Dashte-Naz Project incorporating modern telemetering/telecontrol equipment to monitor and control surface and ground water resources of a 6,000-acre irrigation project in Northern Iran.

Incorporated into this project was the first ground water barrier project in Iran, a pilot project that prevented salt-water encroachment by means of a ground water pressure ridge.

Planned and supervised ground water development projects in Karstic limestone areas of Northern and Western Iran. Planned and supervised teams involved in the ground water exploration and development of the limestone formations for municipal and agricultural supplies in Southwest Iran.

LOUIS BERGER INTERNATIONAL INC., Tehran, Iran

July 1971 to July 1973. Project Manager in charge of project management and supervision for the Gorgan area project, a one million acre irrigation project in Northeast Iran. Work involved coordinating and supervising the efforts of geologists, civil engineers, hydro-agronomists, economists, and various other scientific and technical personnel. Specifically, the project was oriented toward producing feasibility designs upon which the government could economically justify funds for large-scale agriculture and animal husbandry development (surface and ground water), optimized using modern computer techniques for maximum development of irrigated agriculture, animal husbandry and agro-business.

UNITED NATIONS DEVELOPMENT PROGRAMME, India

October 1972 to September 1974. Special consultant to the United Nations Development Programme (UNDP). UNDP Expert responsible for direction and coordination of work by United Nations and local personnel in India in connection with development and testing of a digital computer model of the Gujarat ground water reservoir.

LOS ANGELES DEPARTMENT OF WATER AND POWER, Los Angeles, California

July 1968 to July 1971. Engineering Geologist/Hydrologist. Planned and directed geologic and hydrologic studies in the Los Angeles and Owens Valley areas with regard to the amount and disposition of surface and ground water resources available for supply to the City of Los Angeles. Supervised engineering personnel and various construction and technical personnel in geologic and hydrologic investigations. Initiated and coordinated programs involving well drilling, aquifer testing and analysis, and ground water quality monitoring and cleanup.

Developed master plan for optimum basin development and management in the Owens Valley area involving digital computer model simulation. Applied analytical methods to evaluate ground water quantity and quality problems in the Los Angeles area.

Conducted various engineering geology studies including slope stability analyses, foundation and site studies and various tunnel investigations.

Designed injection well barrier for control of a gasoline contaminated ground water reservoir near Los Angeles. Built a model of the system to test analytical and field results of the two-fluid flow regime (gasoline and water).

CALIFORNIA STATE POLYTECHNIC UNIVERSITY Pomona, California

January to June 1970

Instructor in Civil Engineering Department. Part-time instructor in Hydraulic Engineering, Water Supply Engineering, Engineering Hydrology and Water Quality.

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY (NMIMT), Socorro, New Mexico

September 1966 to July 1968. Graduate Research Assistant. Worked for the Research and Development Division of NMIMT while attending graduate school. Involved on both model and field-testing of using air injection into ground water reservoirs as an effective means of combating salt-water encroachment. Built viscous-flow model of the system. Field-tested theory using a compressor-tank system into wells drilled by students with school rotary drilling rigs.

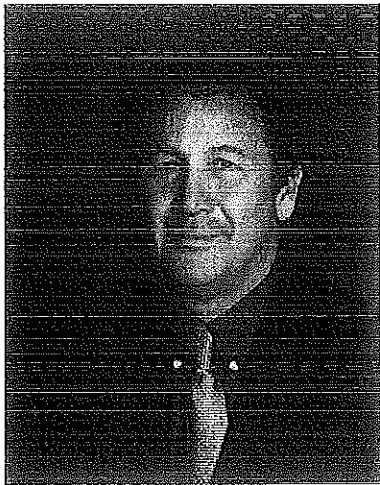
Involved in complete water resources study of the Pecos Basin of Southwest New Mexico.

Developed and tested an automatic water-level recording device based on a strain gage transducer coupled to a simple bridge circuit and displayed on a strip chart recorder. Also participated in the design of an experimental borehole-sampling gun powered by an explosive charge designed to take fast, undisturbed samples in the bottom of a well.

LOS ANGELES DEPARTMENT OF WATER AND POWER, Los Angeles, California
June 1965 to September 1966. Civil Engineering Assistant. Initiated and planned exploration program for water resources development in the Owens Valley area. Supervised drilling and testing operations of exploratory wells in conjunction with development of a supplemental ground water supply to the Los Angeles Aqueduct System. Worked on ground water management models in the Los Angeles area involving well drilling, aquifer testing and data analysis. Assisted in water quality investigations in the Los Angeles area. Worked on bank storage problems in many of the city reservoirs. Helped formulate operational regimens incorporating flood routing.

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY, Socorro, New Mexico
June 1962 to June 1965. Graduate Research Assistant. Half time work for Research and Development Division. Involved in thermal water studies of

New Mexico. Constructed various models (sand, viscous flow), of complex hydrologic systems. Conducted aquifer tests and geologic field mapping in Central New Mexico.



GEOSCIENCE

BRIAN A. VILLALOBOS, PG, CHG, CEG
Senior Geohydrologist

Mr. Villalobos has 25 years (1978-1989 and 2001 until present) of professional experience in environmental geology and hydrogeology throughout the Southern California region. His specific areas of expertise are in hydrogeologic investigations, environmental site assessments, environmental hydrogeology, and engineering geology. Examples of his recent work include:

WATERSHED / GROUND WATER BASIN EVALUATIONS:

City of Banning 2010 Urban Water Management Plan, City of Banning, CA [City of Banning 2010-2011] - Prepared the City of Banning 2010 Urban Water Management Plan (UWMP). The Urban Water Management Planning Act requires urban water suppliers, is defined as a supplier, publicly or privately owned, that either provides over 3,000 acre-feet of water annually for municipal purposes or serves more than 3,000 or more connections, to assess the reliability of its water sources over a 20-year planning horizon considering normal, dry, and multiple-dry years. Amendments to the UWMPA since the 2005 UWMPA include the Water Conservation Act of 2009 or 20x2020 Plan, to reduce per capita water use by 20% by December 31, 2020.

Update of Safe Yield Estimates for the Banning Ground Water Storage Unit – Banning, CA [Brownstein, Farber, Hyatt, Schreck, 2011] - Performed an assessment of current data and re-evaluated safe yield estimates for the ground water basin as a potential source of water supply for a proposed future development.

Determination of the Usable Capacity and Safe Yield for each Sub-basin within the Yucaipa Basin Area, Yucaipa, California - San Bernardino Valley Municipal Water District and Partners. 2012

Project included re-evaluation of Yucaipa Groundwater Basin subbasin boundaries for a re-determination of the "safe yield" and storage capacity of each of the subbasins. A watershed model of the Yucaipa Valley was constructed to determine water balance terms previously not calculated. The "safe yield" was calculated using three separate methods to validate values and compared to historical calculations by previous workers.

Years of Experience: 25
Years with GEOSCIENCE: 8

Expertise:
Ground Water Hydrology
Water Resource Management and Planning
Environmental Hydrogeology
Engineering Geology

Education:
B.S., Geology,
California State University, Los Angeles. 1980.

Professional Registrations:
California Professional Geologist
(No. 4153)
Engineering Geologist, California
(No. 1298)
Certified California Hydrogeologist,
California, (No. 794)

DRAFT - Recycled Water Use Evaluation using the Gateway Subbasin Focused Groundwater Model – Yucaipa Valley Water District. 2014

The project included development of a geologic and hydrologic conceptual model followed by construction of a groundwater flow and solute transport model of a 10 square mile area focused on the Gateway Subbasin but incorporating portions of five of the seven subbasins. The model is being used to evaluate potential movement of recycled water from the Wilson Creek Spreading Basin.

DRAFT in Progress - Mission Basin Model Update and Evaluation of Indirect Potable Reuse for the City of Oceanside – RMC/City of Oceanside. 2014

The project included development of a geologic and hydrologic conceptual model followed by construction of a groundwater flow and solute transport model of a 22 square mile area covering the entire Mission Groundwater Basin near Oceanside California. The model is being used to evaluate potential movement of recycled water from the Wilson Creek Spreading Basin.

Recharge Investigation of the Yucaipa Groundwater Basin - San Bernardino Valley Municipal Water District and Partners. 2014

Project included a hydrogeologic investigation of eleven potential sites within the Yucaipa Groundwater Basin for potential artificial recharge. Recommendations for subsequent phases of investigation were provided for each site.

Ground Water Basin Assessment for the Box Springs Mutual Water Company Service Area Rezoning – City of Moreno Valley, CA [Albert A. Webb & Associates, 2008] - Assisted with the evaluation of available long-term water supplies from the San Jacinto Ground Water Basin for use in potential future City development plans.

Active Recharge Project from Tributaries of the Santa Ana River, San Bernardino County, CA [San Bernardino Valley Municipal Water District, 2009-2011] – Provided project management for development of a watershed model to estimate potential stormwater capture from 13 tributary Creeks to the Santa Ana River in the San Bernardino Valley. The project includes preparation of conceptual designs for stormwater capture facilities and estimation of the potential new conservation water added to the ground water system from capture of urban run-off.

GROUND WATER MANAGEMENT AND RESOURCE PLANNING:

Independent Analysis of the East Mesa Region Ground Water Storage, Imperial County, CA [Imperial Irrigation District, 2012] – Providing project management for evaluation of the feasibility of ground water recharge and storage within East Mesa, Amos Valley, and Pilot Knob. The evaluation consists of a thorough compilation, review, and synthesis of existing documents and data with the goal of creating a Unified Summary document to rank the potential sites and recommend appropriate “next steps.”

Update of the Upper Santa Clara River Integrated Regional Water Management Plan Climate Change Technical Study and Salt and Nutrient Management Plan, Santa Clarita, CA [Upper Santa Clara River Regional Water Management Group, 2012] – Providing project management and technical analysis during preparation of a Salt and Nutrient Management Plan for incorporation into the updated IRWMP. The SMP is being prepared in order to meet the requirements of the State’s 2009 Recycled Water Policy.

Peer Review of Beaumont Basin Maximum Benefits Modeling Report , Riverside County, CA [City of Banning, 2011]– Under oversight by the Santa Ana Regional Water Quality Control Board, prepared City of Banning’s water supply plan for the Beaumont Storage Unit and participated in the development of planning modeling scenarios to assess the impact of the current and projected use of recycled water on Total Dissolved Solids (TDS) and Nitrate concentrations in the Beaumont Management Zone to the year 2040

City of Riverside Salinity Study – Riverside County, CA [Carollo Engineers 2010-2011] – Mitigation alternatives for TDS exceedance at the City of Riverside Regional Wastewater Treatment Plant (WWTP) is required by the RWQCB . Mr. Villalobos has provided project management for the geohydrologic evaluation portion of the study to determine the trends and sources of high TDS water contributing to the TDS in effluent from the WWTP. The next phase will result in preparation of mitigation alternative to reduce TDS in effluent

Peer Review of EIR Ground Water Modeling and Hydrologic Monitoring and Mitigation Plan for a Ground Water Supply for Geothermal Operations – Inyo County, CA [Best Best & Krieger LLP, 2008 – 2009] - Reviewed all geologic and hydrologic information pertaining to the ground water basin in order to

evaluate a ground water model used in the development of a hydrologic monitoring and mitigation plan (HMPP). A review of the HMPP was conducted to determine whether it was effective at maintaining ground water resources in the basin.

CONTAMINANT GEOHYDROLOGY

Review of Mobil Oil Closure Report [Client Confidential – Orange County, 2010] - Project Manager in charge of reviewing document request for closure of Mobil Oil Station in Orange County, California. Reviewed documents prepared by consultant and made recommendations as to whether was sufficient work performed to support closure of the facility.

Characterization of Contaminant Plume Affecting Ground Water Production Wells – 2010 [Client Confidential, 2009 - 2010]

Project Manager in charge of evaluation of TCE Plume anomaly. Work performed includes characterization of plume, research on all possible sources of contamination, modeling of plume to determine extent and flow direction.

Assessment of the Potential Leakage of Injection Water into Overlying Aquifers- Orange County, CA [Angus Petroleum, 2008] - Reviewed ground water quality and ground water level data as for potential impacts from six years of water flooding operations as a part of brine injection into oil-bearing formations.

ARTIFICIAL RECHARGE / CONJUNCTIVE USE:

Geohydrologic Evaluation of the Riverside Aquifer Storage and Recovery Project – Riverside County CA [RBF Consulting, 2008] - Project included identification of available Santa Ana River surface flows for Use in On-Channel and Off-Channel Recharge Basins and the Evaluation of Impacts from Recharge Operations on the Ground water surface.

Evaluation of Potential Locations for Ground Water Recharge at the East and West Dam Sites, Diamond Valley Lake – Riverside County, CA [Dudek and Associates, 2008] - The investigation involved assessment of water quality and water level trends as well as other considerations to evaluated impacts from proposed recharge scenarios.

PROFESSIONAL EXPERIENCE:

2008 to Present: Senior Geohydrologist, GEOSCIENCE Support Services, Inc.;
La Verne, California.

2004 to 2008: Vice President, Environmental Manager, PETRA Geotechnical ,
Inc. Costa Mesa, California.

2001 to 2004 Project/Senior Geologist, PETRA Geotechnical, Inc. Costa Mesa,
California.

(1989 – 2001: Executive Director, Victory Outreach, UK Charitable
Organization, London, England).

1986 – 1989: Project Geologist, Senior Geologist. Kleinfelder and Associates.
Artesia, California.

1978 – 1986: Staff Geologist/Project Geologist. LeRoy Crandall and Associates
[Became Law Engineering 1984]. Los Angeles, California.

Years of Experience: 3+
Years with GEOSCIENCE: 3

Expertise:

Ground Water Modeling
Ground Water Hydrology
Watershed Management
Seawater Intrusion
Artificial Recharge
Geographic Information Systems /
Database Development and
Management

Education:

M.S., Hydrology
University of Idaho—
Moscow, ID, 2011
B.S., Geology
B.S., Integrated Earth Studies
California State Polytechnic
University—Pomona, CA,
2009

Professional Registrations:
Geologist-In-Training

GEOSCIENCE

LAUREN WICKS
Geohydrologist

Ms. Wicks has experience with ground water and environmental investigations performed for numerous municipalities, state agencies, and private clients throughout the Southern California region. Scope of responsibilities include: ground water flow and transport modeling, geohydrologic investigations, ground water basin and water quality studies, artificial recharge projects, and experience in the fields of GIS applications, database development and management, and watershed management. Examples of Ms. Wicks recent work include:

GROUND WATER MODELING:

Joint Groundwater Model for the Rialto-Colton Groundwater Basin - San Bernardino and Riverside Counties, CA [San Bernardino Valley Municipal Water District, West Valley Water District, Goodrich Corporation, City of Rialto and City of Colton, 2013-Present] – Prepared a technical memorandum comparing previous groundwater models of the Rialto-Colton area and identifying the strengths and weaknesses of each and helped with subsequent reports regarding model construction and calibration. Helped compile a well database with locations, construction information, lithologic information and water level/water quality data availability. Continued support for modeling and reporting activities.

Surface and Ground Water Model of the Murrieta-Temecula Ground Water Basin, California: Model Update and Refinement - Riverside County, CA [Rancho California Water District, 2013-2015] – Assisted with the evaluation and reporting of the systematic model update and refinement process.

North Orange Well Field Evaluation, Well Siting, and Non-Potable Water Supply Assessment - Riverside, CA [City of Riverside Public Utilities, 2015] – Assisted in the interpretation of model results and prepared a technical memorandum summarizing the impacts of new potable and non-potable wells on the current North Orange well field wells.

Chino Basin Ground Water Model Update - San Bernardino and Riverside Counties, CA [Chino Basin Desalter Authority, 2013-2014] – Provided support for the refinement of the Chino Basin Ground Water Model to evaluate impacts from proposed CDA wells. Compiled data, updated model files, created model datasets, and calibrated the ground water model.

Paso Robles Groundwater Basin Model Update - San Luis Obispo County, CA [San Luis Obispo County Flood Control and Water Conservation District, 2012-2013] – Provided support for the comprehensive update of the Paso Robles Groundwater Basin model which will allow the District and Basin stakeholders to evaluate management options for addressing documented groundwater level declines. Summarized the estimation of groundwater recharge and discharge components as well as the construction of the watershed model processes in a technical memorandum describing the approach and methodology for water balance estimation.

West Coast Basin Barrier Project – 2012 Model Update - Los Angeles County, CA [West Basin Municipal Water District, 2012-2013]—Provided assistance with updating and revising an existing ground water flow and solute transport model to support the Annual Los Angeles Regional Water Quality Control Board Barrier Project Report. Collected and compiled historic chloride concentrations for model refinement, edited initial concentrations in model file.

WATER QUALITY:

TDS and Nitrate Lumped-Parameter Model for the Riverside and Arlington Groundwater Basins - San Bernardino County, CA [Western Municipal Water District, San Bernardino Valley Municipal Water District, City of Riverside, City of San Bernardino, 2015] – Supported the creation of a lumped-parameter model to meet monitoring and reporting requirements of the groundwater basins and assess compliance under various scenarios. Helped with the preparation of various technical memorandums throughout the modeling process.

Salt and Nutrient Management Plan – Santa Clara River Valley East Subbasin - Los Angeles County, CA [Castaic Lake Water Agency, 2014-Present] – Helped with the preparation of a Salt and Nutrient Management Plan to determine ambient water quality conditions and assimilative capacities in the East Subbasin and ensure management practices are consistent with water quality objectives. The Plan included the creation of a calibrated spreadsheet model and an anti-degradation analysis to assess the impacts of future projects.

Mesa Consolidated Water District – Impacts of Colored Water Pumping on Overlying Clear Water Aquifer Zones - Orange County, CA [MCWD, 2015] – Acted as project manager and conducted an analysis of water quality and water level data in relation to pumping from the deep, colored water aquifer. The analysis also included the collection of samples and interpretation of dissolved inorganic carbon (DIC) concentrations, dissolved organic carbon (DOC) concentrations, and tritium levels.

ARTIFICIAL RECHARGE / CONJUNCTIVE USE:

City of Oceanside Indirect Potable Reuse and Pathogen Removal Study - San Diego County, CA [RMC, 2015] – Constructed and helped calibrate a groundwater flow model to run recharge scenarios in the Bonsall Groundwater Basin. Assisted with the interpretation of the model results and production of the modeling report.

Recycled Water Use Evaluation using the Gateway Subbasin Focused Groundwater Model - San Bernardino County, CA [Yucaipa Valley Water District, 2015] – Prepared a technical memorandum evaluating the effects of recharging recycled water at the Wilson Creek Spreading Basin under various recharge scenarios, including the calculation of the travel distance and velocity of recycled water, retention times and percentage of recycled water in nearby active production wells.

Calculate and Forecast New Conservation for the Western-San Bernardino Watermaster - San Bernardino and Riverside Counties, CA [San Bernardino Valley Municipal Water District and Western Municipal Water District, 2013] – Assisted in analyzing the data and model output and in the correspondence with entities involved in the project. Prepared a report summarizing the model development and results as well as directed the creation of the report figures.

Raymond Basin Groundwater Recharge Technical Analysis – Conjunctive Use Management Plan - Los Angeles County, CA [USACE and Raymond Basin Management Board, under contract to Tetrattech, 2012-2013] – Provided assistance with updating and revising an existing ground water flow and solute transport model to support the development of the Raymond Basin Conjunctive Use Management Plan for the Foothill Communities Water Supply

Reliability Study. Collected and compiled data, created model input files, updated model layers based on 3-D lithologic model, evaluated hydraulic conductivities and zones and prepared the text summarizing the groundwater model calibration.

Foothill Municipal Water District Recycled Water Recharge Analysis – Infiltration Gallery, La Canada High School Football Field - Los Angeles County, CA [FMWD, 2013]—The Raymond Basin Management Board ground water model developed by GEOSCIENCE was used to evaluate the potential for an indirect potable recharge project at La Canada High School. Produced model output files, calculated minimum retention times, recycled water contributions and travel times, and assisted with preparing the report summarizing the results of the model predictive run.

OCEAN DESALINATION FEASIBILITY STUDIES:

Calleguas Municipal Water District – Feasibility of Slant Well Feedwater Supply - Ventura County, CA [CMWD, 2015-Present] – Assisted with the creation of generic coastal cross-sections in the study area. Modeled the conceptual drawdowns that might be experienced by proposed slant well arrays using an analytical model that solves the Universal Drawdown Equation for Multiple Wells (UDEM).

Monterey Peninsula Water Supply Project, Monterey, CA [California American Water, 2013-Present] – Assisted in the construction of cross-sections from well and borehole data to evaluate the feasibility of providing a feedwater supply to the proposed Cal Am desalination plant. Also helped in the creation of the North Marina Groundwater Model and focused CEMEX Model for the modeling of slant well effects. Directed and assisted with the production and revision of the groundwater modeling report, which was included in the Project's Environmental Impact Report. Continued support for the final calibration process of the CEMEX model.

Doheny Ocean Desalination Project, Dana Point, CA [South Coast Water District, 2014-Present] – Assisted with reporting regarding the advancement of slant well technology and groundwater flow and solute transport modeling as a part of the Foundational Actions Funding Program. The scope of work included the update of the existing San Juan Basin Regional Groundwater model and creation of a focused coastal groundwater model.

South Orange Coastal Ocean Desalination Project, Dana Point, CA [Municipal Water District of Orange County, 2012-2013] – Assisted with the update and calibration of the San Juan Basin Regional Groundwater Model which was used to determine the operational yield and groundwater impacts of the SOCOD project. Helped prepare the report text summarizing the surface and groundwater models, drafted answers to questions arising from the modeling workshop, and assisted with the creation of the executive summary document.

PROFESSIONAL EXPERIENCE:

2012-Present GEOSCIENCE Support Services, Inc.

2012 Inland Empire Utilities Agency, Chino, CA
Intern, Groundwater Recharge

2009-2011 University of Idaho, Moscow, ID
Teaching Assistant, Geology

2007-2009 Inland Empire Utilities Agency, Chino, CA
Intern, Groundwater Recharge

2006 Robinson Nevada Mining Company, Porphyry Copper Mine, Ruth, NV
Intern, Geology

Years of Experience: 2
Years with GEOSCIENCE:

GEOSCIENCE

LEO LIU
Staff Geohydrologist

Expertise:

Ground Water Modeling
Ground Water Hydrology
Watershed Modeling
Watershed Management
Artificial Recharge
Geographic Information Systems
/ Database Development and
Management

Education:

B.S., Environmental Engineering
Tianjin Institute of Urban
Construction-Tianjin, China,
2010
M.S., Environmental Engineering
University of Southern California-
Los Angeles, CA, 2013

Mr. Liu has a more than year of experience with GEOSCIENCE, assisting in groundwater management and groundwater modeling for projects throughout Southern California. Scope of responsibilities include: ground water flow and solute transport modeling, geohydrologic investigations, ground water basin and water quality studies, watershed modeling and management, artificial recharge projects, and experience in the fields of GIS applications, database development and management.

Examples of Mr. Liu's recent work include:

GROUNDWATER WATER MANAGEMENT:

Salt and Nutrient Management Plan – Santa Clara River Valley East Subbasin - Los Angeles County, CA [Castaic Lake Water Agency, 2014-Present] – Developed and calibrated salt loading model for the period from 2001 to 2011. Provided assistant with determining surface water, groundwater and salt balance and evaluated the impacts of six proposed projects to future water quality in six groundwater management zones. Developed and ran predictive model runs for the period of 2012 through 2035. He analyzed the modeling results of modeling for determination of projected changes in assimilative capacity for each water quality constituent under No Project, Single Project and All Project conditions.

TDS and Nitrate Lumped-Parameter Model for the Riverside and Arlington Groundwater Basins - San Bernardino County, CA [Western Municipal Water District, San Bernardino Valley Municipal Water District, City of Riverside, City of San Bernardino, 2015] – Updated Groundwater Flow Model input packages to incorporate recharge and discharge components (i.e., flux terms) measured during the period from January 1965 through December 2007. Developed a lumped-parameter model for the period from 1965 to 2007 and calibrated through varying the anthropogenic return flow mass loading and initial TDS and nitrate concentration. Developed and ran predictive model runs for the period of 2015 through 2034 under four different scenarios.

WATERSHED MODELING:

Yucaipa - Calculation of Annual Change in Storage - San Bernardino County, CA [San Bernardino Valley Municipal Water District. 2014] – Collected ground water level, pumping, spreading data, and climatological data on an annual basis. Digitized water level data from 2005 to 2013 for Yucaipa area using GIS software. The each year groundwater elevation contours was used to calculate groundwater storage capacity.

City of San Bernardino – US EPA Model – San Bernardino County, CA [City of San Bernardino. 2014] – Prepared the SBBA HSPF watershed model input data including land use, channel type and evapotranspiration data and run model.

San Bernardino Valley Municipal Water District – Rialto Colton Model – San Bernardino County, CA [San Bernardino Valley Municipal Water District. 2014] – Collected and digitized water data of 1945, and 2011 using GIS software. Calculated water budget including underflow from Lytle Basin, underflow from Bunker Hill Basin, artificial recharge of imported water, ungaged runoff and subsurface inflow from the San Gabriel Mountains and Badlands, streambed percolation from the Santa Ana River and Warm Creek, groundwater pumping, and evapotranspiration.

Raymond Basin Ground Water Flow Model – Los Angeles County, CA [Raymond Basin Management Board, 2014] – Regression analysis on Arroyo Seco spreading based on annual and monthly flow data from City of Pasadena, Devils' Gate Dam, and precipitation.

PROFESSIONAL EXPERIENCE:

2014 - Present GEOSCIENCE Support Services, Inc.

2012 – 2014 Los Angeles Regional Water Quality Control Board, Los Angeles,
CA - Internship, Groundwater Management

City of Banning
COST ESTIMATE TO PREPARE 2015 URBAN WATER MANAGEMENT PLAN

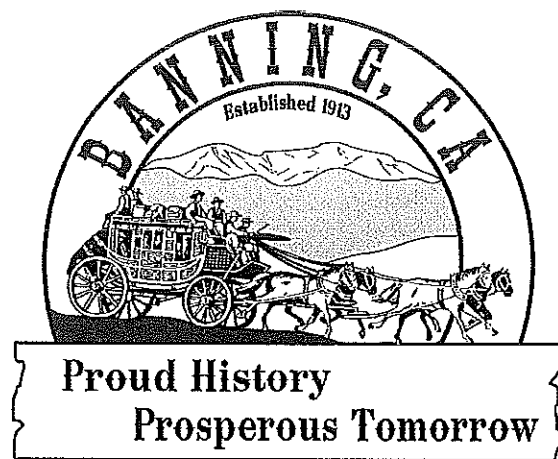
Task No.	Description	GEOSCIENCE										Total Labor	Reimbursable Expenses	Total Cost
		Principal Hydrologi \$296/Hr	Senior Engineer \$204/Hr	Senior Geohydrologis \$199/Hr	Project Geohydrologis \$169/Hr	Sr. Staff Geohydrologist \$138/Hr	Staff Geohydrologist \$128/Hr	Technical Illustrator \$113/Hr	Clerical \$97/Hr					
2010 Urban Water Management Plan														
1.0	Public and Stakeholder Outreach													
	Assumes Preparation of Draft 2015 UWMP Presentation and presentation at Public hearing and preparation of Final 2015 UWMP presentation for the adoption hearing	4		16				4			\$ 4,820	\$ 210	\$ 5,030	
	Subtotal Task 1:	4		16				4			\$ 4,820	\$ 210	\$ 5,030	
2.0	Prepare Draft 2015 UWMP (6 Hardcopies & 1 Electronic Version)													
	Section 1 - Plan Preparation			8		40		8			\$ 8,016	\$ -	\$ 8,016	
	Section 2 - System Description			8		16		8			\$ 4,704	\$ -	\$ 4,704	
	Section 3 - System Water Use	1	4	8		24		8		24	\$ 9,176	\$ -	\$ 9,176	
	Section 4 - Baseline and Targets	1	4	8		16				16	\$ 6,144	\$ -	\$ 6,144	
	Section 5 - System Supplies	1		8		12		8		16	\$ 6,496	\$ -	\$ 6,496	
	Section 6 - Water Supply Reliability and Contingency Plan			12		24		8			\$ 6,604	\$ -	\$ 6,604	
	Section 7 - Demand Management Measures			8		16		8			\$ 4,704	\$ -	\$ 4,704	
	Draft 2015 UWMP Report Preparation		8	16		24		12	16		\$ 9,404	\$ 1,500	\$ 10,904	
	Subtotal Task 2:	3	16	76	0	172		60	16	56	\$ 55,248	\$ 1,500	\$ 56,748	
3.0	Prepare Final 2015 UWMP (6 Hardcopies & 1 Electronic Version)													
	Includes making revisions from stakeholder comments, submittal of both electronic copies and electronic submittals to DWR and hard copies to selected stakeholders			8		16					\$ 6,320	\$ 1,500	\$ 7,820	
	Subtotal Task 3:			12		16		12	16		\$ 6,320	\$ 1,500	\$ 7,820	
4.0	Meeting Attendance													
	Meeting Attendance (assumes 8 progress meetings per RFP)	16		64							\$ 17,472	\$ 840	\$ 18,312	
	Subtotal Task 4:	16		64							\$ 17,472	\$ 840	\$ 18,312	
	TOTAL COST Task 1-4:	23	16	168	0	188	56	76	32		\$83,860.00	\$4,050.00	\$87,910.00	

City of Banning
COST ESTIMATE TO PREPARE 2015 URBAN WATER MANAGEMENT PLAN

Task No.	Description	GEOSCIENCE										Total Cost
		Principal Hydrologi \$236/Hr	Senior Engineer \$204/Hr	Senior Geohydrologis \$199/Hr	Project Geohydrologis \$169/Hr	Sr. Staff Geohydrologist \$138/Hr	Staff Geohydrologist \$128/Hr	Technical Illustrator \$113/Hr	Clerical \$97/Hr	Total Labor	Reimbursable Expenses	
5.0	Additional Services (costs not included in overall costs)											
5.1	Preparation of Water Demand TM for City review, comment and approval	2		8		24		8		\$ 6,400		\$ 6,400
5.2	Update of Maximum Perennial Yield Values and Beaumont Storage Assessment	1		4		8				\$ 2,196		\$ 2,196
	OPTIONAL Task Subtotal Task 5:	3	0	12	0	32	0	0	0	\$ 8,596	\$ -	\$ 8,596
	TOTAL COST:	23	16	168	0	188	56	76	32	\$ 92,456	\$ 4,050	\$ 96,506

Exhibit “C”
Request for Proposals (RFP)

Request for Proposals (RFP)
City of Banning 2015
Urban Water Management Plan



Responses Due:
City of Banning
Public Works Department
99 E. Ramsey Street
Banning, CA 92220
(951) 922-3130

September, 2015

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1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION AND OBJECTIVES

The City of Banning (City) is soliciting proposals from qualified consulting firms to prepare the City of Banning 2015 Urban Water Management Plan (UWMP) to support the City's long term-resource planning and ensure availability of adequate water supplies to meet existing and future water demands.

1.2 BACKGROUND INFORMATION

The City of Banning, incorporated in 1913, covers approximately 23.2 square miles located in the San Geronio Pass area of Riverside County, approximately 30 miles east of the cities of San Bernardino and Riverside. The 2014 U.S. Census Bureau American Community Survey recorded a population of 30,325 for the City of Banning.

The City of Banning Water System collects 100% of the water that it supplies from local groundwater aquifers. It currently operates 21 active ground water production wells and co-owns 3 production wells with the Beaumont Cherry Valley Water District (total of 24 active wells). The 24 wells have a design capacity of 24,300 gallons per minute (GPM). The City facilities also include 11 storage tanks with a total storage capacity of 18.4 million gallons (MG). In 2014 the City produced and provided approximately 8,500 acre-feet. Water service is provided to the entire City as well as unincorporated areas of the county that bound the south City limits.

The California Urban Water Management Planning Act requires Urban Water Management Plans to be updated every five years. Water suppliers providing water to more than 3,000 customers or more than 3,000 acre-feet per year (AFY) must prepare, adopt and submit an UWMP to the Department of Water Resources (DWR). The UWMP must describe the adequacy and reliability of all water supplies for existing and future customers. The California Water Code specifies the contents and procedures for adoption of the UWMP, which must be adopted and submitted to the DWR. Assembly Bill 2067 requires that the 2015 UWMP be submitted to the DWR by July 1, 2016.

2.0 SCOPE OF WORK

The services will generally include data review and analysis, development of demand projections and analysis of demand management measures (DMMs). The 2015 UWMP shall be developed according to the *2015 Urban Water Management Plans Guidebook for Urban Water Suppliers*.

2.1 PRELIMINARY WORK

The consultant shall attend a data needs meeting with representatives from the City to discuss data needed to prepare the 2015 UWMP. The consultant shall formalize a memo identifying all items needed and submit said memo to the City.

The consultant shall prepare a detailed schedule of the project for a completion date prior to July 1, 2016. The 2015 UWMP shall be presented to the City Council for adoption no later than June 7, 2016.

It shall be the responsibility of the consultant to review and become familiar with all pertinent data including, but not limited to the: 2010 UWMP; Highland Springs Conference and Training Center, *Petitioner v. City of Banning, Respondent*, SCC/Black Bench, LLC, *Real Party* and all consolidated cases RIC 460950, RIC 461035, RIC 461069; and New DWR requirements.

2.2 DEMAND ANALYSIS

This task consists of preparing updated water demand analyses through 2040 for the City. The update shall reflect adopted General Plan population, changes in water use and saving from current and future water conservation measures. This task shall also include: reviewing demand from previous years and 2015 demand projections; reviewing existing demand factors; updating demand factors; determining consumption by customer class; and analyzing indoor and outdoor water use.

The water demand projections shall be defined using a model acceptable to the City. The baseline demand projections shall include impacts of the current and future CALGreen Codes and appliance/fixture standards already in place.

2.3 SYSTEM DESCRIPTION

The consultant shall provide a detailed service area description as well as a write up on service area population. This task shall also include review of demographic data which shall serve as the basis for evaluating water use demands and trends.

2.4 SYSTEM SUPPLIES

This task shall include review and discussion regarding the City's water sources, water rights, groundwater, transfer opportunities, recycled water opportunities, future water projects, and drought planning.

As part of this task the consultant shall: establish verifiable current water supply sources; review potential additional natural sources of water; assess potential water from conservation; establish verifiable water supply sources from purchases or participation in conjunctive use project; and establish verifiable current and projected use of recycled water within the service area.

2.5 SYSTEM DEMANDS BY CUSTOMER CLASS

The consultant shall describe historic and existing water use characteristics and water demands in terms of annual total production and consumption by use class (residential, commercial, industrial, institutional, parks, others). Unit water demands (gallons/account/day) for each major use class (residential, commercial, industrial, public) and indoor and outdoor water use shall be presented. Recent water billing data

shall be collected and reviewed by the consultant to determine appropriate water demand factors for the demand analysis.

This task shall also include a discussion regarding: existing potable and non-potable demands; future potable and non-potable (and recycled water) demands for 10 year, 20 year and buildout; distribution system losses; low income household demands; baseline and targets of 2010 UWMP GPCD; and water use reduction plan.

2.6 WATER SUPPLY RELIABILITY/WATER SHORTAGE CONTINGENCY PLANNING

As part of this task the Consultant shall: provide analysis and description of water supplies and demands for normal, single dry-year and multiple dry-year; analysis and description of supply versus demand; preparation of a drought contingency plan; assessment of the reliability of water supplies; and an analysis and description of water quality.

2.7 DEMAND MANAGEMENT MEASURES

The consultant shall prepare an analysis of demand management measures (DMMs). The consultant shall also be tasked with understanding and preparing a summary of recent changes in the way that the DMMs are reported.

2.8 PUBLIC AND STAKEHOLDER OUTREACH

Public and stakeholder outreach will take place during and after the completion of the UWMP. The purpose of this task is to provide a pathway to encourage involvement of diverse social, cultural and economic elements of the population with the City. The plan is to be made available to the public for inspection along with an opportunity to comment in a public hearing. The time and place of the hearing is to be noticed using means that will allow the public within the jurisdiction of the City to have an opportunity to participate. After the hearing the UWMP shall be modified if appropriate and adopted. For this task, the consultant shall plan for a minimum of two public/stakeholder meetings and a public hearing.

2.9 DELIVERABLES

Draft 2015 UWMP: Six (6) hard copies and an electronic (PDF) copy. Hard copies shall also be sent to regional agencies for comment.

Final 2015 UWMP: Six (6) hardcopies and electronic copies (Word and PDF). Hard copies submitted to the DWR.

Supporting documentation: GIS files used, word files used, excel files used, documentation detailing any assumptions, documentation showing how calculations were derived, methodology for unit demand analysis, methodology for service area population, methodology for residential and non-residential growth.

2.10 ADDITIONAL SERVICES

Consultant is encouraged in its proposals to identify any additional work that is not specified in this Scope of Work that would be, in its opinion, necessary to complete the project as defined herein. Consultant may propose additional services that in its opinion will improve the efficiency and quality of the project. If identified, the additional work or services must be included in the proposal but separated out in the Consultant's Fee Schedule.

3.0 CONSULTANT QUALIFICATIONS

3.1 QUALIFICATIONS AND UNDERSTANDING

Each Consultant must provide the following information about their company so the City can evaluate the Consultant's stability and ability to support the commitments set forth in response to the RFP. It is imperative the Consultant's proposal fully address all aspects of the RFP. The proposal must provide the City Staff with clearly expressed information concerning the Proposer's understanding of the City's specific requirements which would result in the conduct of this study in a thorough and efficient manner.

The Consultant shall outline their company's (or team's) background, including:

- How long the company has been in business, plus a brief description of the company history, size and organization.
- Consultant qualifications to complete the scope of services and a statement of understanding of the work involved to complete this assignment.

It should be noted that significant changes have been made by the Legislature to the UWMP Act. Proposals must include knowledge of:

- Reporting of quantified distribution system loss utilizing American Water Works Association (AWWA) water system balance methodology.
- Description of distribution system asset management programs.
- Estimation of the effects of codes, standards and ordinances on demands.
- Electronic online submittal on standardized DWR forms.

3.2 PROJECT TEAM

Each Consultant must provide the following information about their project team.

- Primary point of contact, person responsible for overall corporate commitment (must be a company principal or officer) and project manager. Describe the responsibilities of the individuals and extent of involvement with the project.
- Identify and list key individuals proposed for the project team. Describe the responsibilities of the individuals and extent of involvement with the project.
- All key personnel listed should have current names, titles and telephone numbers and be listed on at least one of the supplied client references who are familiar with

work performed by the individual in a similar capacity. References will be contacted as part of the selection process.

- Clearly identify project sub consultants, how long the prime and sub have worked together and the reason why they were selected. Consultants are encouraged to support small businesses where ever possible.

3.3 REFERENCES

The Consultant shall supply a minimum of 3 references from agencies with projects of similar nature. Each reference shall contain:

- Client name and contact information
- Project description
- Role of key project team members.

Only references of the prime consultant shall be considered, or references from project teams that have completed at least 3 projects together. The Consultant shall also list projects completed for other agencies.

3.4 SCHEDULE

The consultant shall provide a project schedule indicating key project milestones and project activities. The schedule shall reflect a tentative start date of November 30, 2015.

3.5 WORKSHOPS AND MEETINGS

Additionally, a minimum of 10 meetings (kickoff, progress (8) and final) will be held between staff and the Consultant and shall be included in the proposal.

4.0 PROPOSAL SUBMISSION

4.1 RFP TIME SCHEDULE

- | | |
|----------------------------------|---------------------------|
| • Request for Proposal Available | Mon., September 7, 2015 |
| • Inquiry Deadline | Tue., September 22, 2015 |
| • Proposals Due | Tue., September 29, 2015 |
| • Final Selection | Thurs., October 15, 2015 |
| • City Council Recommendation | Tues., October 27, 2015 |
| • Notice to Proceed (Tentative) | Thurs., November 30, 2015 |

4.2 NUMBER OF COPIES AND DELIVERY

Four (4) copies of the proposal shall be submitted to the following address:

**City of Banning
City Clerk's Office
99 E. Ramsey Street
P.O. Box 998
Banning, CA 92220**

The proposal title, consultants name and deadline information shall be clearly identified on the submission package and cover page. Submission deadline is Tuesday, September 29, 2015 at 5:00 p.m. Proposals submitted after that time shall not be considered. All questions regarding the scope of work shall be submitted to Holly Stuart, Public Works Analyst at the address above or via e-mail at hstuart@ci.banning.ca.us.

4.3 FORMAT AND CONTENT

Proposals shall be printed on 8 ½" X 11" paper, single sided in a 10 point Arial font and be limited to 25 pages excluding the cover letter, resumes and any appended information.

Proposals should address the following items in order of appearance:

Cover letter

The cover letter shall be provided which explains the firm's interest in the project. The letter shall contain name/address/phone number of the person who will serve as the firm's principal contact person.

Qualifications of Firm/Project Team

Provide names, titles and responsibilities of key personnel who will be responsible for the management of the project. Include qualifications, resumes, experience of each, and length of time with the company.

References

Give at least three (3) references for projects of similar size and scope, including at least three (3) references for projects completed during the past five years. Include the name and organization, a brief summary of the work, the cost of the project and the name and telephone number of a responsible contact person.

Strategy and Implementation Plan

Prepare a list of tasks to address the Scope of Work. Describe the firm's interpretation of the City's objectives with the regard to this RFP. Describe the proposed strategy and/or plan for achieving the objectives of the RFP. The narrative should include a description of the logical progression of tasks and efforts. Also include an explanation of the type of technology that will be used. This section shall also include a time schedule for the completion of the project and an estimate of time commitments from City staff.

Proposed quality assurance program (QA/QC)

Explain the firm's quality assurance program and the proposed approach for implementing the plan with this project.

Fee Proposal: One set in a separate sealed envelope

The Fee Schedule in a separate envelope shall be broken down on separate sheets as follows:

- A "Not to Exceed" fee for all services. Man-hours and billing rates per classification of personnel will be indicated for each task and/or subtask.
- Provide a complete list of costs per task and/or subtask and a total fee for the proposal, including expected reimbursable expenses (non-binding), for completion of the scope of services set forth in the proposal.
- A current hourly Fee Schedule for Fiscal Year 2014/2015 and classification of personnel for the firm, along with the type of work they and any sub consultants will perform, is also required.
- All printing and reproduction costs, research, meetings, mileage, telephone usage, general office supplies and overhead, etc., shall be included in the proposal and its "Not to Exceed" Fee schedule. Proposals should be prepared in a straight forward manner.

Note: A separate fee schedule is required for each project location.

4.4 PROPOSAL EVALUATION

Proposals will be evaluated based on the following criteria:

- Responsiveness to the RFP.
- Consultant qualifications, project understanding, and overall experience.
- Technical Competency.
- Results of reference checks.
- Project Schedule.
- Proposed QA/QC plan.
- Proposal Fee.

4.5 NEGOTIATIONS

In an effort to manage the resources available for this project, the City may find it necessary to negotiate tasks, include contingencies for additional meetings or workshops, and address other factors identified by the Proposer not contemplated in this document or the City's standard agreement.

5.0 CONTRACT REQUIREMENTS AND SUBMITTALS

5.1 CITY OF BANNING REQUIREMENTS

The Contract will be presented to Council for approval. Please provide a copy of the attached City agreement to your legal team and insurance provider, if you are selected for Final Evaluation. This will expedite the process. A purchase order will not be granted until the contract is signed and all insurance requirements are satisfied.

Exhibit “D”
Committee Evaluation Forms

**2015 URBAN WATER MANAGEMENT PLAN
SUMMARY OF PROPOSAL EVALUATIONS**

	Krieger & Stewart	Stetson Engineering, Inc.	West & Associates Engineering	Risk Management Professionals Inc.	TKE Engineering, Inc.	GEOSCIENCE Support Services, Inc.
Evaluator 1	440	440	445	440	380	405
Evaluator 2	440	435	440	385	410	395
Evaluator 3	445	420	415	410	400	385
Evaluator 4	450	430	415	400	400	385
Total Score	1775	1725	1715	1635	1590	1570
Average Score	443.8	431.3	428.8	408.8	397.5	392.5
Cost	\$ 73,000.00	\$ 68,000.00	\$ 75,000.00	\$ 42,099.00	\$ 35,473.00	\$ 87,910.00

**Evaluations for
Geoscience Support Services**

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: GEOSCIENCE Support Services, Inc.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt. x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart- yes included	10	7	70	Firm open since 1978 and have impressive experience with geohydrology projects. Staff experience is 1 UWMP (Banning) with 1 PhD and 3 Geohydrologists.
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	9	90	Shows only 1 UWMP completed, which is less than the other proposals. However, they did prepare the last UWMP for Banning successfully. Extensive experience with groundwater modeling.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule- Yes included - Included innovative approaches	15	10	150	Addressed all aspects of the RFP and provided a detailed Scope of Work. They prepared the City's last UWMP in 2010 so they have an excellent understanding of the City's water system. Also showed excellent understanding of UWMP Guidelines.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.- PROVEN PAST WITH THE CITY	5	10	50	Firm is located in La Verne and appears to have enough staff to meet the city's needs. 85% of business is repeat clients.
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Demonstrated that they can perform the work since they did the 2010 UWMP for Banning, but no other UWMPs listed.
GENERAL NOTES: Proposal was prepared very professionally with graphics and very detailed schedule and Scope of Work. Their experience with UWMPs is less than the other proposers but they were the only consultant to show the AWWA Water Audit reporting form.		TOTAL		405	

NAME: Ann Marie Loconte, P.E. TITLE: Associate Civil Engineer
 DATE: 10/9/15

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: GEOSCIENCE SUPPORT SERVICES, INC.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ? - Organizational Chart -	10	9	90	NO ORG CHART
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ? - Impacts of other on-going projects and ? - priorities - Quality and cost control procedures/policies ✓ - Staff availability ? - Ability to meet City's insurance requirements ?	10	8	80	PREVIOUSLY PREPARED DRAINING'S UWMP
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ? - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	9	135	NO cover letter
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City ? requirements. - Firm location (work done) & accessibility to City staff. ✓	5	8	40	CLAREMENT
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget. ✓	5	10	50	
GENERAL NOTES: NO COVER LETTER		TOTAL		395	
COST PROPOSAL NOT EVALUATED BY REVIEWER					
NAME: MARGARET TITLE: ASSOC. DATE: 10/6/15 MONSON ENCL.					

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: GEOSCIENCE SUPPORT SERVICES, INC.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ?	10	9	90	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ? - Quality and cost control procedures/policies ? - Staff availability ✓ - Ability to meet City's insurance requirements ?	10	7	70	QA/QC not included
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ? - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	9	135	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	
GENERAL NOTES: Cover letter and QA/QC were not submitted.		TOTAL		385	
NAME: Ken Bailey TITLE: Asst. Eng. DATE: 10/6/15					

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: *Geo Science Support Services*

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart	10	9	90	ORG CHART
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies ? - Staff availability - Ability to meet City's insurance requirements ?	10	8	80	COST CONTROL / QUALITY CONTROL INSURANCE
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	8	120	FORMAT NO COVER
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	10	50	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	BUDGET W/D
GENERAL NOTES: Format No Cover No org chart		TOTAL		385	
NAME: <i>RON BRIDEN</i> TITLE: <i>ENGINEER</i> DATE: <i>10-7-15</i>					

**Evaluations for
Krieger & Steward Engineering Consultants**

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: Krieger & Stewart Engineering Consultants

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt. x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart- Yes included	10	10	100	Firm founded in 1971 and has been preparing UWMPs (17) since 1985 when law first required them. Excellent team staff experience with 3 P.E.s and 1 draftsman.
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	10	100	Same staff that worked on several UWMPs in 2010 will work on our project. Firm did UWMPs for several agencies in 2010 and currently preparing 2 for 2015. Staff appears very qualified to perform all tasks for this project.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule- Yes included - Included innovative approaches	15	10	150	Addressed all aspects of the RFP and provided a detailed Scope of Work and deliverables. They provided a very good QA/QC plan, proof of insurance and detailed schedule. Very familiar with Senate Bills and explained the new changes for 2015 very well.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	Firm is located in Riverside and appears to have enough staff to meet the city's needs.
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Demonstrated that they can perform similar work on 17 UWMPs since 1985.
GENERAL NOTES: Excellent proposal that showed this firm can perform the Scope of Work. All of the items of the RFP were addressed very well and they reviewed Banning's 2010 UWMP and background information and included this in their Scope of Work. Lots of water and wastewater engineering experience.		TOTAL		440	
NAME: <u>Ann Marie Loconte, P.E.</u> TITLE: <u>Associate Civil Engineer</u> DATE: <u>10/12/15</u>					

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: KRIEGER & STEWART

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ✓	10	9	90	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ✓ - Quality and cost control procedures/policies ✓ - Staff availability ✓ - Ability to meet City's insurance requirements ✓	10	10	100	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. ✓ - Firm location (work done) & accessibility to City staff. ✓	5	10	50	RIVERSIDE
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget. ✓	5	10	50	
GENERAL NOTES:		TOTAL		440	

COST PROPOSAL NOT EVALUATED BY REVIEWER

NAME: MARGARET TITLE: ASSOC DATE: 10/6/15
MANSON ENG

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: *Krieger & Stewart*

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ✓	10	10	100	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ✓ - Quality and cost control procedures/policies ✓ - Staff availability ✓ - Ability to meet City's insurance requirements ✓	10	10	100	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ~ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. ✓ - Firm location (work done) & accessibility to City staff. ✓	5	10	50	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Budgets not discussed
GENERAL NOTES:		TOTAL		445	
NAME: <i>Ken Bailey</i> TITLE: <i>Asst. Engr</i> DATE: <i>10/16/15</i>					

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: KRIEGER & STEWART

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart	10	10	100	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	10	100	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	10	50	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	10	50	
GENERAL NOTES:		TOTAL		450	
NAME: <u>RON BRIDEN</u> TITLE: <u>ENGINEER</u> DATE: <u>10-7-15</u>					

**Evaluations for
Risk Management Professionals, Inc.**

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: Risk Management Professionals, Inc.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt. x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart- yes included	10	10	100	Firm open since 1995 and have been preparing UWMPs since 1995. Excellent team staff experience with 2 P.E.s and 2 EITs. Mechanical & chemical engineers and environmental engineer.
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	10	100	Same staff that worked on 6 UWMPs in 2010 will work on our project. Firm has experience working with more than 50 agencies, counties, cities and districts. Staff appears to be available and very qualified to perform all tasks.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule- Yes included - Included innovative approaches	15	10	150	Addressed all aspects of the RFP and provided a detailed Scope of Work and deliverables. They provided an excellent QA/QC plan, and very detailed schedule. Very familiar with Senate Bills, and current legislation.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	Firm is located in Irvine and appears to have enough staff to meet the city's needs.
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Demonstrated that they can perform similar work 6 mentioned UWMPs in 2010 and some number in 2005.
GENERAL NOTES: Excellent proposal that showed this firm can perform the Scope of Work. All of the items of the RFP were addressed very well and they showed a strong understanding of the project. Also have prepared recycled water and sewer system management plans.		TOTAL		440	

NAME: Ann Marie Loconte, P.E. TITLE: Associate Civil Engineer
 DATE: 10/8/15

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: *RISK MANAGEMENT PROFESSIONALS, INC*

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ? - Organizational Chart ✓	10	8	80	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities ✓ - Impacts of other on-going projects and ? priorities - Quality and cost control procedures/policies ✓ - Staff availability - Ability to meet City's insurance requirements ?	10	8	80	ONLY CITY LISTING - PROJECT LISTING MISSING
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ? - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	9	135	NO LOCAL REFERENCES
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff. ✓	5	8	40	IRVINE, CA
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	10	50	
GENERAL NOTES: PROPOSAL EXPIRES IN 90 DAYS?			TOTAL	385	

COST PROPOSAL NOT EVALUATED BY REVIEWER.

NAME: *MARGARET* TITLE: *ASSOC* DATE: *10/5/15*
MONSON *ENG*

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: Risk Management Professionals, INC

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key ☒ - Time commitment of key members ☒ - Organizational Chart ☒	10	9	90	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ☒ - Management/Organizational capabilities ☒ - Impacts of other on-going projects and priorities ☒ - Quality and cost control procedures/policies ☒ - Staff availability ☒ - Ability to meet City's insurance requirements ☒	10	8	80	Has completed multiple URMPS Updates
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ☒ - Provided an explanation of the project ☒ - Showed familiarity with project area and issues ☒ - Logical course of action to meet goal ☒ - Had internal measures proposed to meet timely completion ☒ - Provided a Project Schedule ☒ - Included innovative approaches ☒	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	Active office
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Budgets not discussed
GENERAL NOTES:		TOTAL		410	
NAME: Ken Bailey TITLE: Assist. Eng DATE: 10/6/15					

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: RISK MANAGEMENT PROFESSIONALS

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart	10	9	90	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	7	70	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	BUDGET INFO
GENERAL NOTES:		TOTAL		400	
NAME: <u>RON GRADIER</u> TITLE: <u>ENGINEER</u> DATE: <u>10-7-15</u>					

**Evaluations for
Stetson Engineers, Inc.**

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: Stetson Engineers, Inc.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt. x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart-	10	10	100	Firm open since 1957 and have been preparing UWMPs since 1985 when law first required them. Excellent team staff experience with 3 P.E.s and 1 EIT.
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	10	100	Same staff that worked on numerous UWMPs in 2010 will work on our project. Firm did UWMPs for more than 15 agencies in 2010. Staff appears to be available and very qualified to perform all tasks for this project.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule- Yes included - Included innovative approaches	15	10	150	Addressed all aspects of the RFP and provided a detailed Scope of Work and deliverables. They provided a very good QA/QC plan, proof of insurance and detailed schedule. Very familiar with Senate Bills, AWWA and provided background on the UWMP Act.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	Firm is located in Covina and appears to have enough staff to meet the city's needs.
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Demonstrated that they can perform similar work on over 15 UWMPs in 2010. They listed 3 as RFP required but state they have done many more.
GENERAL NOTES: Excellent proposal that showed this firm can perform the Scope of Work. All of the items of the RFP were addressed very well and they showed a strong understanding of the project. Also have water system master plan and water supply assessments experience.		TOTAL		440	

NAME: Ann Marie Loconte, P.E. TITLE: Associate Civil Engineer

DATE: 10/9/15

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: STETSON ENGINEERS

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ○	10	9	90	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies ✓ - Staff availability ✓ - Ability to meet City's insurance requirements ✓	10	10	100	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches ○	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff. ✓	5	9	45	Covina, CA
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	10	50	
GENERAL NOTES:		TOTAL		435	

COST PROPOSAL NOT EVALUATED BY REVIEWER

NAME: MARGARET MONSON TITLE: ASSOC. ENGR. DATE: 10/6/15

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: *Stetson Engineers, Inc.*

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ?	10	9	90	Organizational chart not provided
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ? - Quality and cost control procedures/policies ✓ - Staff availability ✓ - Ability to meet City's insurance requirements ✓	10	9	90	Consistent projects not discussed
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. ✓ - Firm location (work done) & accessibility to City staff.	5	9	45	Contra Office
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	
GENERAL NOTES:		TOTAL		420	
NAME: <i>Ken Burton</i> TITLE: <i>Asst. Eng.</i> DATE: <i>10/6/15</i>					

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: STETSON ENGINEERS INC

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart	10	9	90	ORG CHART
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	10	100	Concurrent Proj & Priorities
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	
GENERAL NOTES:		TOTAL		430	
NAME: Jon Gordan TITLE: Engineer DATE: 10/2/13					

**Evaluations for
TKE Engineering, Inc.**

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CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: TKE

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt. x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart- not included	10	7	70	Firm open since 2000. Very good staff experience with 2 P.E.s for this project who have water resource planning experience. Staff experience is 2 UWMPs in 2010.
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	7	70	Shows 2 UWMP completed, which is less than the other proposals. Representation of Mission Springs Water District prepared General Plan Update and 2 Water supply assessments.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule- Yes included - Included innovative approaches	15	10	150	Addressed all aspects of the RFP and provided a detailed Scope of Work and deliverables. They provided a very good QA/QC plan, and detailed schedule. Very familiar with new regulations, and Senate Bills.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	Firm is located in Riverside and appears to have enough staff to meet the city's needs.
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Demonstrated that they can perform the work since they prepared 2 UWMPs and water supply assessments.
GENERAL NOTES: Proposal was well prepared with detailed schedule and Scope of Work. Their experience with UWMPs is less than the other proposers but they did demonstrate that they understood the project. The firm has lots of public works experience (water, stormwater, street and drainage improvement plans).		TOTAL		380	

NAME: Ann Marie Loconte, P.E TITLE: Associate Civil Engineer
DATE: 10/8/15

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: TKE ENGINEERING, INC

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members 0 - Organizational Chart 0	10	9	90	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities 0 - Quality and cost control procedures/policies ✓ - Staff availability 0 - Ability to meet City's insurance requirements 0	10	8	80	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. 0 - Firm location (work done) & accessibility to City staff. ✓	5	8	40	RIVERSIDE
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget. ✓	5	10	50	
GENERAL NOTES:		TOTAL		410	

COST PROPOSAL NOT EVALUATED BY REVIEWER

NAME: MARGARET TITLE: ASSOC. DATE: 10/6/15
MONSON ENG.

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: TKE Engineering, INC

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ? - Organizational Chart ?	10	8	80	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ? - Quality and cost control procedures/policies ✓ - Staff availability ✓ - Ability to meet City's insurance requirements ?	10	8	80	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	Riverside office
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Budgets not discussed
GENERAL NOTES:		TOTAL		400	
NAME: <u>Ken Bailey</u> TITLE: <u>Assist. Eng.</u> DATE: <u>10/6/15</u>					

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: TKE ENGINEERING INC

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart	10	8	80	ORG CHART Time Commitment Qualifications
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	8	80	OPBONG Proj Impact INSURANCE
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	BUDGET DISCUSSION
GENERAL NOTES:		TOTAL		400	
NAME: Ron Grubier TITLE: ENGINEER DATE: 10-7-15					

**Evaluations for
West & Associates Engineering**

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: West And Associates Engineering

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt. x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart- Yes included	10	10	100	Newer firm, the Project Manager is the owner and has greater than 10 yrs. experience with water and wastewater projects. Excellent staff experience for UWMPs with 4 P.E.s and 1 EIT on the team.
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	10	100	Same staff that worked on 8 UWMPs in 2010 will work on our project. Firm already has experience working on 4 UWMPs for 2015. Staff appears to be available and very qualified to perform all tasks. Lots of public agency experience.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule- Yes included - Included innovative approaches	15	10	150	Addressed all aspects of the RFP and provided a very detailed Scope of Work, schedule and an excellent QA/QC plan. Impressive explanation of the UWMP Act and subsequent legislation and key updates to address for the 2015 Plan.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	10	50	Firm is located in Foothill Ranch and was the only firm to mention each of the staff member's availability to the City for immediate response, 100% for most members.
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Demonstrated that they can perform similar work: 8 UWMPs in 2010 and already 4 for 2015 with same staff.
GENERAL NOTES: Excellent proposal that showed this firm can perform the Scope of Work. All of the items of the RFP were addressed very well and they showed a very strong understanding of the project for Banning.		TOTAL		445	

NAME: Ann Marie Loconte, P.E. TITLE: Associate Civil Engineer
DATE: 10/11/15

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: WEST & ASSOC.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ✓	10	10	100	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related ✓ projects - Management/Organizational capabilities ✓ - Impacts of other on-going projects and ✓ priorities - Quality and cost control procedures/policies ✓ - Staff availability - Ability to meet City's insurance requirements ✓	10	9	90	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City ✓ requirements. - Firm location (work done) & accessibility to ✓ City staff.	5	10	50	FOOTHILL RANCH
5	REFERENCES - Record of producing a quality product on ✓ similar projects on time and within budget.	5	10	50	
GENERAL NOTES:		TOTAL		440	

COST PROPOSAL NOT EVALUATED BY REVIEWER

NAME: MARGARET MONSON TITLE: ASSOC. ENG. DATE: 10/6/15

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: West & Associates Engineering

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ✓	10	10	100	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ? - Quality and cost control procedures/policies ✓ - Staff availability ✓ - Ability to meet City's insurance requirements ?	10	8	80	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	8	40	Budgets not discussed
GENERAL NOTES:		TOTAL		415	
NAME: Ken Bailey TITLE: Assist. Eng. DATE: 10/16/15					

CONSULTANT EVALUATION

Project: Urban Water Management Plan

Consultant: WEST & ASSOC.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart	10	10	100	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements %	10	9	90	INSURANCE INFO PERSONAL INFO
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	9	135	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	BUDGET
GENERAL NOTES:		TOTAL		415	
NAME: <u>RON BRIDEN</u> TITLE: <u>ENGINEER</u> DATE: <u>10-7-15</u>					

**Exhibit “E”
Fee Schedule**

TABLE 1
CITY OF BANNING
2015 URBAN WATER MANAGEMENT PLAN
ESTIMATED FEES FOR ENGINEERING SERVICES

TASK / COMPONENT	PRINCIPAL ENGINEER (1)		SENIOR ENGINEER (2)		ASSOCIATE ENGINEER (3)		CADD SERVICES (4)		CLERICAL (5)		TOTAL
	HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	HOURS	\$	\$
1. INITIAL/DATA NEEDS MEETING	4	828	4	732	4	644			2	182	2,385
2. REVIEW EXISTING DATA	4	828	8	1,464	40	6,440					8,732
3. REVIEW CDWR GUIDEBOOK WORKSHOP CONTENT					6	966					966
4. PRELIMINARY 2015 UWMP AND WORKSHOP	8	1,656	8	1,464	40	6,440	32	4,192	40	3,640	17,392
5. DRAFT 2015 UWMP (50%)	2	414	4	732	24	3,864	8	1,048	24	2,184	8,242
6. 50% DRAFT 2015 UWMP WORKSHOP WITH CITY STAFF	2	414	6	1,098	4	644			2	182	2,338
7. DRAFT 2015 UWMP (95%)	2	414	4	732	16	2,576	4	524	8	728	4,974
8. 95% DRAFT 2015 UWMP WORKSHOP WITH CITY STAFF	2	414	6	1,098	4	644			2	182	2,338
9. PRESENTATION MATERIALS AND CONFERENCE CALL WITH CITY STAFF FOR REVIEW	2		6	1,098	4	644			2	182	1,924
10. PUBLIC AND STAKEHOLDER OUTREACH	2	414	18	3,294	12	1,932			16	1,456	7,096
11. FINAL 2015 UWMP	4	828	8	1,464	16	2,576	4	524	8	728	6,120
12. FINAL 2015 UWMP REVIEW CONFERENCE CALL WITH CITY STAFF	4	828	4	732	4	644					2,204
13. PRESENTATION OF FINAL 2015 UWMP TO CITY COUNCIL	2	414	12	2,196	8	1,288			4	364	4,262
14. SUBMISSION TO CDWR AND OTHERS					8	1,288			8	728	2,016
15. AMENDMENTS TO FINAL 2015 UWMP	OPTIONAL TASK - SEE BELOW										
SUBTOTAL:	38	7,452	88	16,104	190	30,590	48	6,288	116	10,556	70,990
OPTIONAL TASK (ESTIMATED)											
15. AMENDMENTS TO FINAL 2015 UWMP	2	414	4	732	16	2,576			24	2,184	5,906
SUBTOTAL:	2	414	4	732	16	2,576	0	0	24	2,184	5,906
REIMBURSABLES (3%):											2,130
ENGINEERING SERVICES TOTAL (ROUNDED):											\$73,000
OPTIONAL TASK REIMBURSABLES (3%):											177
OPTIONAL ENGINEERING SERVICES TOTAL (ROUNDED):											\$6,000

HOURLY RATES PER K&S 2015 FEE SCHEDULE:

- (1) PRINCIPAL ENGINEER I @ \$207 /Hr
(2) SENIOR ENGINEER II @ \$183 /Hr
(3) ASSOCIATE ENGINEER II @ \$161 /Hr
(4) CAD OPERATOR III @ \$131 /Hr
(5) SECRETARY IV @ \$91 /Hr





**FEE SCHEDULE
2015**

CLASSIFICATION	RATES \$/Hr.
Consulting, Design, Construction, Engineering, Environmental, Commissioning, and Surveying Services (Office)	
Consultant	271.00
Principal III	249.00
Principal II	229.00
Principal I	207.00
Senior III	195.00
Senior II	183.00
Senior I	172.00
Associate III	166.00
Associate II	161.00
Associate I	155.00
Staff III	149.00
Staff II	131.00
Staff I	114.00
Technician III	98.00
Technician II	93.00
Technician I	88.00
Forensic Services	
Principal Expert:	
Testimony, Deposition, and Trial	420.00
Investigation and Preparation	310.00
Associate Expert:	
Testimony, Deposition, and Trial	360.00
Investigation and Preparation	260.00
Computer Aided Design Services	
Operator III	131.00
Operator II	125.00
Operator I	117.00
Surveying Services (Field)	
2 Man Crew with Standard Equipment and Survey Truck	275.00
1 Man Crew with Standard Equipment and Survey Truck	210.00
3rd Man on Crew	125.00
Construction Services (Field)	
Engineer	148.00
Inspector	
Regular Time	114.00
Overtime	
Weekdays (8 hours to 12 hours)	138.00
Weekdays (More than 12 hours)	166.00
Saturday (12 hours or less)	138.00
Saturday (More than 12 hours)	166.00
Sunday and Holiday (Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and the Day After, Christmas Day)	166.00



**FEE SCHEDULE
2015
(continued)**

CLASSIFICATION	RATES \$/Hr.
Support Services	
Secretary IV	91.00
Secretary III	87.00
Secretary II	79.00
Secretary I	71.00
Utility Clerk II	65.00
Utility Clerk I	64.00
Outside Services	
Special Consultants and Purchased Services	Cost + 15%
Reimbursable Expenses	
Vehicle Mileage	0.72 \$/Mile
Travel and Subsistence, including Air Fare, Ground Fare, and Vehicle Parking	Cost
Specialized Rental Equipment	Cost
Copies, Delivery, Postage, Prints, Telephone, and Sundry Charges	Cost

The above rates are subject to change on or about January 1 each year due to salary and cost increases, except for Construction Inspector and Survey Crew rates which are also subject to change if California Department of Industrial Relations issues new prevailing wage determinations during the course of the year. A gasoline surcharge may be included in response to increased prices; no such surcharge will be included on project invoices without prior notification.

TERMS OF PAYMENT:

Unless charge accommodations have been established beforehand, all accounts shall be prepaid. For accounts having charge accommodations, payment in full shall be made within 30 days of date of invoice. Any amount unpaid within said 30 days will be assessed a service charge of 1-1/2% per month (18% annual percentage rate), with a minimum charge of \$1.00. Accounts with a past due balance of 30 days or more are subject, without notice, to credit discontinuance and mechanic's lien or stop notice. If it becomes necessary for Krieger & Stewart to initiate legal proceedings for the collection of any balance due, the action shall be brought and tried in the Judicial Districts wherein Krieger & Stewart offices are located. Client agrees that the court may award reasonable attorney's fees and costs of suit to the prevailing party.

2015-FEES (07/15/2015)

CITY COUNCIL /BANNING UTILITY AUTHORITY AGENDA

DATE: **October 27, 2015**

TO: **Banning Utility Authority**

FROM: **Art Vela, Acting Director of Public Works**

SUBJECT: **Resolution No. 2015-16 UA, "Awarding a Professional Services Agreement for the Chromium-6 Treatment and Compliance Study to Hazen and Sawyer"**

RECOMMENDATION: The Banning Utility Authority adopt Resolution No. 2015-16UA:

- I. Approving a Professional Services Agreement with Hazen and Sawyer of Palm Desert California in the amount of \$89,630.00.
- II. Authorizing the Administrative Services Director to make necessary budget adjustments and appropriations and transfers related to the project.
- III. Authorizing the Interim City Manager to execute the Professional Services Agreement with Hazen and Sawyer.

JUSTIFICATION: The California Department of Public Health ("CDPH"), effective July 1, 2015, adopted the final drinking water Maximum Contaminant Level ("MCL") for Chromium-6 at 10 parts per billion ("ppb") as approved by the Office of Administrative Law on May 28, 2014. Up to seven (7) of the City of Banning's operating wells do not meet the final MCL. The Chromium-6 Treatment and Compliance Study will result in a document that will evaluate the options, and related costs, available to the City in order to comply with the new drinking water standard.

BACKGROUND: The City of Banning owns and operates the water system which collects 100% of the water that it supplies from local groundwater aquifers. It currently operates 21 active ground water production wells and co-owns 3 production wells with the Beaumont Cherry Valley Water District (total of 24 active wells). The 24 wells have a design capacity of 24,300 gallons per minute ("GPM"). The City facilities also include 11 storage tanks with a total storage capacity of 18.4 million gallons ("MG"). In 2014 the City produced and provided approximately 8,500 acre-feet. Water service is provided to the entire City as well as unincorporated areas of the county that bound the south and north City limits.

Chromium-6 occurs naturally in the City of Banning groundwater due to erosion of sediments at levels above the final MCL of 10 ppb. Seven of the City's wells currently exceed the final MCL for Chromium-6 (see Exhibit "A" for concentrations and locations).

The study will require the Consultant to develop a strategy to comply with the final Chromium-6 MCL, including a time table and cost estimates for design and construction of the recommended treatment facilities. The study shall also analyze the costs and benefits of removing co-occurring constituents, when found at levels of concern in local groundwater.

The study will be submitted to the State Water Resources Control Board ("State Board") to request a variance as allowed by Senate Bill 385 (see attached Exhibit "B"), which was signed into law by Governor Jerry Brown in September of 2015. The bill authorizes, until January 1, 2020, State Board to grant a variance from the new primary drinking water standard for Chromium-6 if a public water agency prepares and submits a compliance plan, the State Board approves the compliance plan, and the public water agency notifies its customers of the compliance plan and provides annual updates to the State Board. With a granted variance a public water agency would not be deemed in violation as they work toward achieving compliance.

Public Works staff advertised a Request for Proposals ("RFP") on September 8, 2015 in the Press Enterprise, attached as Exhibit "C" and on the City's website. As a result of these efforts, staff received four proposals, attached as Exhibit "D", in response to the RFP attached hereto as Exhibit "E".

<u>Consultants</u>	<u>Score</u>
1) Hazen and Sawyer	430.00
2) TKE Engineering, Inc.	375.00
3) Engineering Resources	378.00
4) Corona Environmental Consulting	367.50

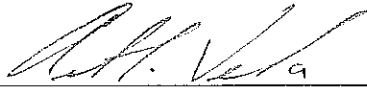
A committee consisting of four members was assembled to evaluate the proposals based on project approach, technical competency, project team and experience, overall responsiveness to the RFP and cost. The evaluations are attached hereto as Exhibit "F".

Based on evaluations, Hazen and Sawyer appears to be the best qualified company with the ability to prepare the Chromium-6 Treatment and Compliance Study successfully. The total cost to perform the study is \$89,630.00 with the fee schedule and proposal attached as Exhibit "G".

FISCAL-DATA: The Professional Services Agreement shall be funded by Water Funds in an amount "not to exceed" \$89,630.00, Account No. 660-6300-471.33-53 (Engineering Services).

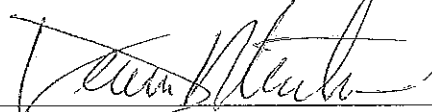
SIGNATURES ON NEXT PAGE

RECOMMENDED BY:



Art Vela
Acting Director of Public Works

REVIEWED/APPROVED BY:



Dean Martin
Interim City Manager

Attachments:

1. Exhibit "A" – Location Map
2. Exhibit "B" – SB 385
3. Exhibit "C" – Press Enterprise Advertisement
4. Exhibit "D" – Proposals
5. Exhibit "E" – Request for Proposals (RFP)
6. Exhibit "F" – Committee Evaluation Forms
7. Exhibit "G" – Hazen & Sawyer Fee Schedule

RESOLUTION NO. 2015-16 UA

A RESOLUTION OF THE BANNING UTILITY AUTHORITY OF BANNING, CALIFORNIA, AWARDING A PROFESSIONAL SERVICES AGREEMENT FOR THE CHROMIUM-6 TREATMENT AND COMPLIANCE STUDY TO HAZEN AND SAWYER

WHEREAS, the City of Banning owns and operates the water system which collects 100% of the water that it supplies from local groundwater aquifers and currently operates 21 active ground water production wells and co-owns 3 production wells with the Beaumont Cherry Valley Water District (total of 24 active wells); and

WHEREAS, effective July 1, 2015 the California Department of Public Health ("CDPH"), adopted the final drinking water Maximum Contaminant Level ("MCL") for Chromium-6 at 10 parts per billion ("ppb") as approved by the Office of Administrative Law on May 28, 2014; and

WHEREAS, Chromium-6 occurs naturally in the City of Banning groundwater due to erosion of sediments at levels above the final MCL of 10 ppb and seven of the City's wells currently exceed the final MCL for Chromium-6 (see Exhibit "A" for concentrations and locations); and

WHEREAS, the study will require the Consultant to develop a strategy to comply with the final Chromium-6 MCL, including a time table and cost estimates for design and construction of the recommended treatment facilities and shall also analyze the costs and benefits of removing co-occurring constituents, when found at levels of concern in local groundwater; and

WHEREAS, the study will be submitted to the State Water Resources Control Board ("State Board") to request a variance as allowed by Senate Bill 385 (see attached Exhibit "B"), which was signed into law by Governor Jerry Brown in September of 2015 and authorizes, until January 1, 2020, State Board to grant a variance from the new primary drinking water standard for Chromium-6 if a public water agency prepares and submits a compliance plan, the State Board approves the compliance plan, and the public water agency notifies its customers of the compliance plan and provides annual updates to the State Board; and

WHEREAS, Public Works staff advertised a Request for Proposals ("RFP") on September 8, 2015 in the Press Enterprise, attached as Exhibit "C" and on the City's website and received four proposals, attached as Exhibit "D" in response to the RFP attached hereto as Exhibit "E"; and

WHEREAS, a committee consisting of four members was assembled to evaluate the proposals based on project approach, technical competency, project team and experience and overall responsiveness to the RFP, the evaluations are attached hereto as Exhibit "F"; and

WHEREAS, based on evaluations, Hazen and Sawyer appears to be the best qualified company with the ability to prepare the Chromium-6 Treatment and Compliance Study successfully and the total cost to perform the study is \$89,630.00, fee schedule attached as Exhibit "G"; and

WHEREAS, the Professional Services Agreement shall be funded by Water Funds in an amount "not to exceed" \$89,630.00, Account No. 660-6300-471.33-53 (Engineering Services).

NOW, THEREFORE, BE IT RESOLVED by the Banning Utility Authority of the City of Banning as follows:

SECTION 1. The Banning Utility Authority adopts Resolution No. 2015-16 UA approving a Professional Services Agreement with Hazen and Sawyer of Palm Desert, California in an amount "not to exceed" \$89,630.00.

SECTION 2. The Interim Administrative Services Director is authorized to make necessary budget adjustments and appropriations and transfers related to the project.

SECTION 3. The Interim City Manager is authorized to execute the Professional Services Agreement with Hazen and Sawyer of Palm Desert, California, in a form approved by the City Attorney.

PASSED, ADOPTED AND APPROVED this 27th day of October, 2015.

Deborah Franklin, Chairman
Banning Utility Authority

ATTEST:

Marie A. Calderon, Secretary

**APPROVED AS TO FORM AND
LEGAL CONTENT:**

David J. Aleshire, Authority Counsel
Aleshire & Wynder, LLP

CERTIFICATION:

I, Marie Calderon, Secretary to the Utility Authority of the City of Banning, California, do hereby certify that the foregoing Resolution No. 2015-16 UA, was duly adopted by the Banning Utility Authority of the City of Banning at its Joint Meeting thereof held on the 27th day of October, 2015, by the following vote, to wit:

AYES:

NOES:

ABSTAIN:

ABSENT:

Marie A. Calderon, Secretary
Banning Utility Authority

**Exhibit “A”
Location Map**

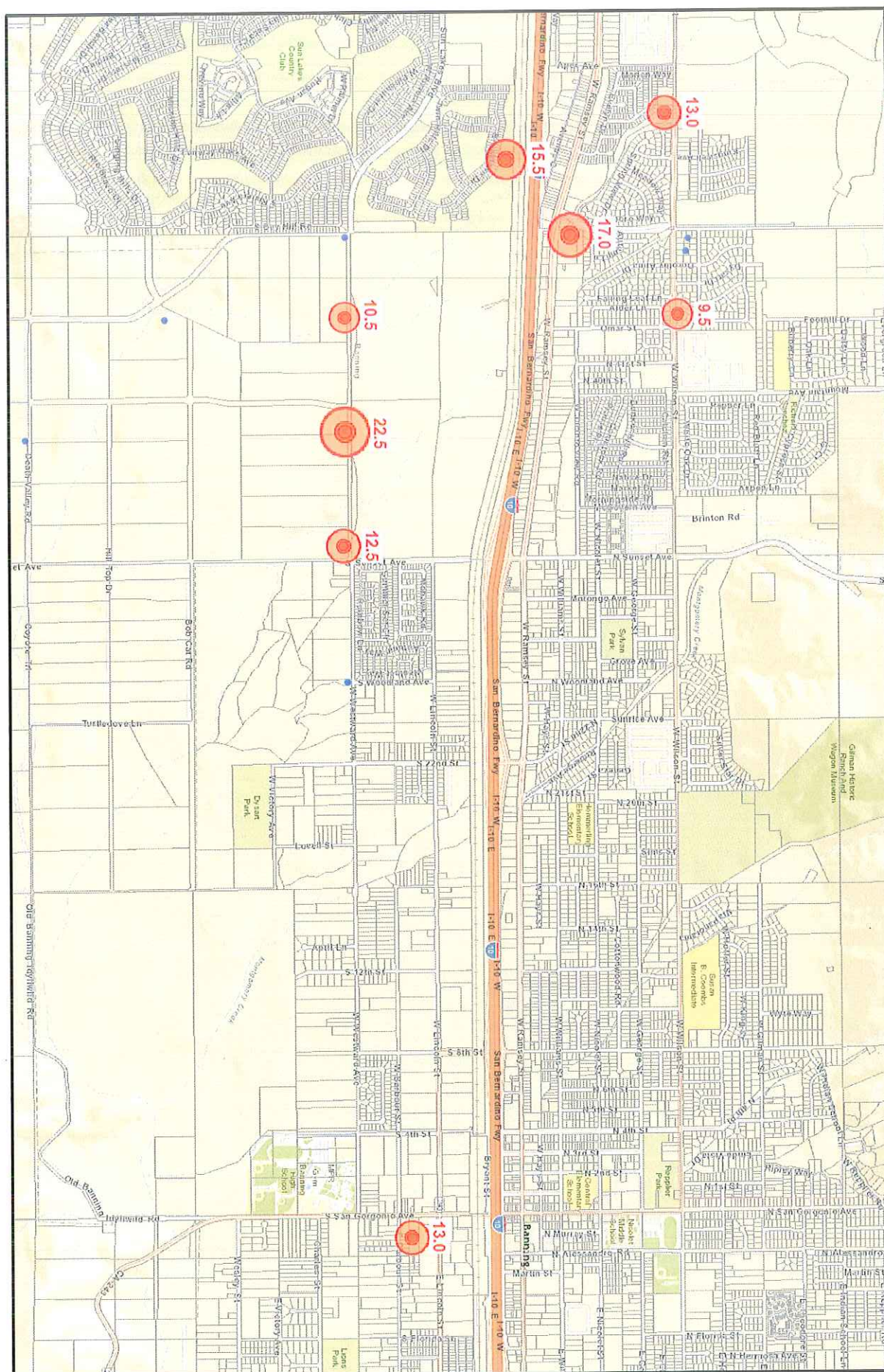


Exhibit “B”
SB 385

Introduced by Senator Hueso

(Principal coauthors: Assembly Members Alejo and Eduardo Garcia)

(Coauthors: Senators Cannella and Stone)

(Coauthor: Assembly Member Mayes)

February 24, 2015

An act to add and repeal Section 116431 of the Health and Safety Code, relating to drinking water, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

SB 385, as introduced, Hueso. Primary drinking water standards: variances: hexavalent chromium.

The California Safe Drinking Water Act provides for the operation of public water systems and imposes on the State Water Resources Control Board various duties and responsibilities for the regulation and control of drinking water in the State of California. The act requires the state board to adopt primary drinking water standards for contaminants in drinking water based upon specified criteria, and required a primary drinking water standard to be established for hexavalent chromium by January 1, 2004. Existing law authorizes the state board to grant a variance from primary drinking water standards to a public water system. Existing law makes certain violations of the act a crime.

This bill would authorize, until January 1, 2020, the state board, at the request of a public water system, to grant a variance from the primary drinking water standard for hexavalent chromium if the public water system prepares and submits a compliance plan, the state board approves the compliance plan, the public water system provides specified notice requirements regarding the compliance plan to its customers, and the public water system sends annual reports to the state board that updates

the status of the approved compliance plan. The bill would require the compliance plan to describe the actions the public water system is taking and will take to comply with the primary drinking water standard for hexavalent chromium by the earliest feasible date, include the public water system's best estimate of the funding required for compliance, and the actions the public water system will take to secure funding.

The bill would authorize the state board to direct revisions to the compliance plan or previously approved compliance plan, if the board makes certain determinations and would make a variance ineffective under certain circumstances, including if the public water system does not submit a revised compliance plan or the revised compliance plan is disapproved. The bill would authorize the state board to adopt emergency regulations to implement these provisions, to be in effect for no more than 2 years. To the extent that a public water system, when requesting a variance or submitting a report pursuant to these provisions, would violate certain provisions of the act, this bill would expand the scope of a crime and impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

This bill would declare that it is to take effect immediately as an urgency statute.

Vote: $\frac{2}{3}$. Appropriation: no. Fiscal committee: yes.
State-mandated local program: yes.

The people of the State of California do enact as follows:

- 1 SECTION 1. Section 116431 is added to the Health and Safety
- 2 Code, to read:
- 3 116431. (a) At the request of any public water system, the
- 4 state board may grant a variance from the primary drinking water
- 5 standard for hexavalent chromium, if all of the following conditions
- 6 are met:
- 7 (1) (A) The public water system has prepared and submitted a
- 8 compliance plan, as described in subparagraph (B), to the state
- 9 board for approval.
- 10 (B) The compliance plan shall describe the actions the public
- 11 water system is taking and will take by milestone dates to comply

1 with the primary drinking water standard for hexavalent chromium
2 by the earliest feasible date. The actions may include, but are not
3 limited to, planning, designing, permitting, financing, constructing,
4 testing, and activating treatment facilities or other capital
5 improvements. The compliance plan shall include the public water
6 system's best estimate of the funding required for compliance and
7 the actions that the public water system will take to secure the
8 funding. In no event shall the earliest feasible date exceed five
9 years from the date on which compliance otherwise would be
10 required.

11 (2) The state board has reviewed the compliance plan, identified
12 any changes needed to ensure compliance with the primary
13 drinking water standard for hexavalent chromium by the earliest
14 feasible date, and approved the plan. The state board shall ensure
15 that the public water system has reviewed available funding
16 sources, cleanup and treatment technologies, and other options to
17 achieve and maintain compliance of the primary drinking water
18 standard by the earliest feasible date.

19 (3) The public water system provides written notice regarding
20 the compliance plan to its customers at least two times per year.
21 The written notice shall meet the translation requirements provided
22 in subdivision (h) of Section 116450 and shall include notice of
23 all of the following:

24 (A) That the public water system is implementing the
25 compliance plan that has been approved by the state board and
26 that demonstrates the public water system is taking the needed
27 feasible actions to comply with the primary drinking water standard
28 for hexavalent chromium. The notice shall summarize those actions
29 in a form and manner determined by the state board. For notices
30 after the initial notice, the public water system shall update
31 information demonstrating progress implementing the compliance
32 plan.

33 (B) That the public water system's customers have an alternative
34 to consuming tap water and that the public water system can
35 provide information on that alternative. The notice shall identify
36 where the customer can obtain that information.

37 (4) Every 12 months following the state board's approval of the
38 compliance plan, the public water system shall submit a written
39 report to the state board, for the state board's approval, that updates
40 the status of actions specified in the state board-approved

1 compliance plan and that specifies any changes to the compliance
2 plan that are needed to achieve compliance with the primary
3 drinking water standard for hexavalent chromium by the earliest
4 feasible date. Approval of a report with changes to the compliance
5 plan shall result in an approved revised compliance plan.

6 (b) A public water system that has requested, or has been
7 granted, a variance pursuant to this section shall not be deemed in
8 violation of the primary drinking water standard for hexavalent
9 chromium while the request for a variance is pending or while the
10 variance is in effect.

11 (c) At any time, the state board may direct revisions to a
12 compliance plan if the state board determines that the compliance
13 plan is insufficient or may disapprove an annual report if the state
14 board determines that the annual report fails to demonstrate that
15 the public water system is complying with the approved compliance
16 plan by the milestone dates. In these instances, the state board shall
17 provide the public water system with written notice specifying the
18 reason for the required revisions or disapproval and the deficiencies
19 that shall be addressed before the compliance plan is resubmitted.

20 (d) A previously approved compliance plan that the state board
21 requires to be revised, or an annual report that is disapproved by
22 the state board, may be revised and resubmitted by the public water
23 system for state board approval within 60 days of receipt of the
24 notice required by subdivision (c). A public water system shall not
25 be deemed in violation of the primary drinking water standard for
26 hexavalent chromium for 60 days following receipt of this notice.
27 A variance granted pursuant to subdivision (a) shall not be effective
28 for any public water system that fails to submit a revised
29 compliance plan or revised annual report within 60 days of
30 receiving the notice, or that submits a revised compliance plan or
31 revised annual report that is subsequently disapproved.

32 (e) (1) Except as provided in paragraph (2), the state board may
33 adopt emergency regulations in accordance Section 11346.1 of
34 the Government Code in order to implement this section.

35 (2) The emergency regulations shall remain in effect for a period
36 not to exceed two years during which time the state board shall go
37 back and adopt the regulations in conformity with the provisions
38 of Chapter 3.5 (commencing with Section 11340) of Part 1 of
39 Division 3 of Title 2 of the Government Code.

(f) (1) This section shall remain in effect only until January 1, 2020, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2020, deletes or extends that date.

(2) A variance granted by the state board pursuant to this section before January 1, 2020, shall continue in effect until the state board determines that the variance is no longer in effect pursuant to subdivision (d) or until the earliest feasible compliance date, as specified by the compliance plan.

SEC. 2. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

SEC. 3. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting the necessity are:

The state's regulation setting the new maximum contaminant level for hexavalent chromium VI went into effect on July 1, 2014. The regulation required that the initial compliance monitoring under the regulation be performed by January 1, 2015. Public water systems need to take major compliance actions, such as designing, financing, and constructing water treatment facilities, to comply with the new regulation. To avoid the systems being deemed in violation of the regulation in 2015, and for a limited time period thereafter, it is necessary for this act, which authorizes a time-limited variance, to take effect immediately.

Exhibit “C”
Press Enterprise Advertisement

REQUEST FOR PROPOSALS (RFP)
CHROMIUM-6 TREATMENT AND COMPLIANCE STUDY

The City of Banning is soliciting proposals from qualified professional engineering firms to provide "Chromium-6 Treatment and Compliance Study". The study will require the Consultant to develop a strategy to comply with the new final chromium-6 MCL, including a preliminary design and time table; construction of recommended facilities; and cost estimates.

A complete copy of the Request for Proposals may be obtained by visiting the City of Banning website at <http://www.ci.banning.ca.us/index.aspx?nid=19> or by contacting Ms. Holly Stuart, Management Analyst by email at hstuart@ci.banning.ca.us or by phone at (951) 922-3138. The Proposals are due by Tuesday, September 29, 2015 at 5:00 pm to the City of Banning, City Clerk located at 99 E. Ramsey Street, Banning, CA 92220.

BY ORDER OF THE CITY CLERK of the City of Banning, California.

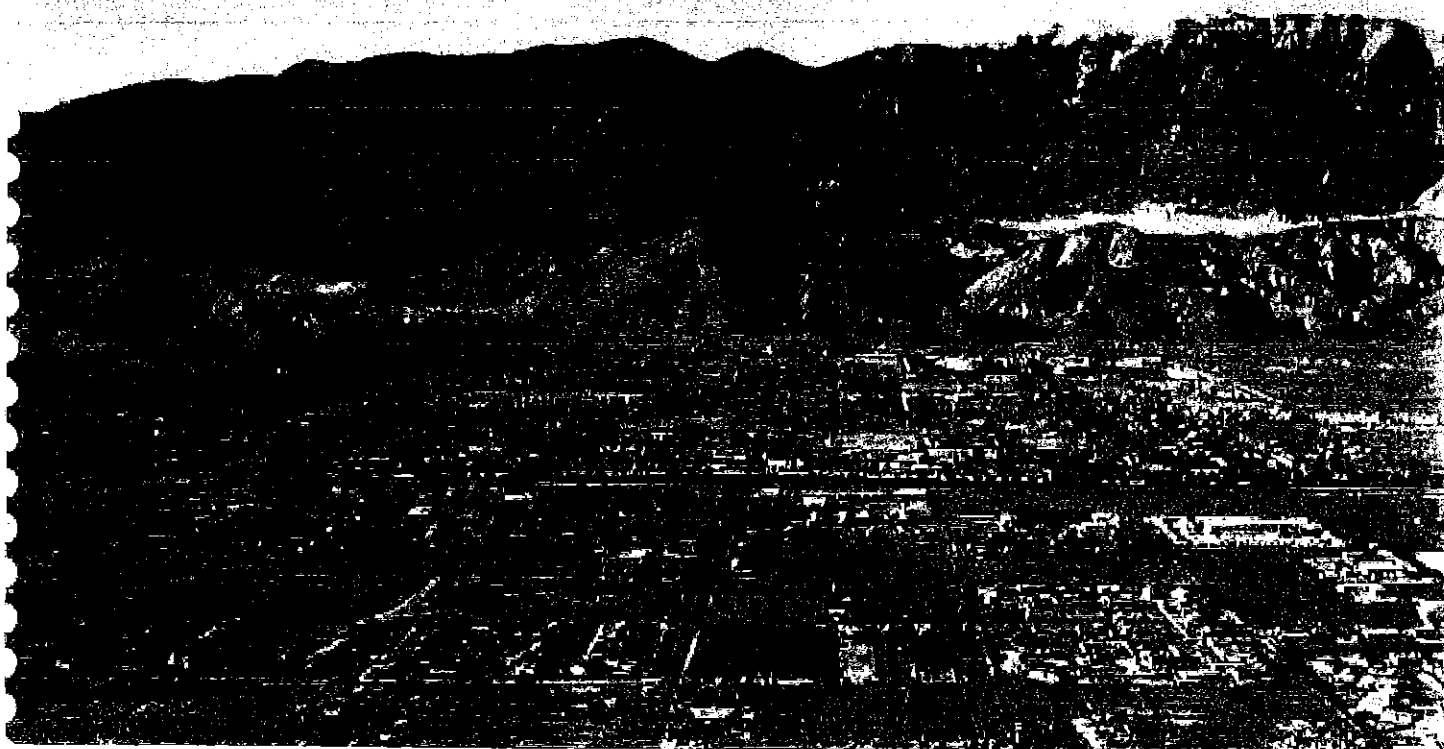
s/ Marie A. Calderon, City Clerk
City of Banning, California

DATED: September 2, 2015
PUBLISH: September 8, 2015

Exhibit “D” Proposals

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Hazen



City of Banning, CA | Public Works Department

Chromium-6 Treatment and Compliance Study

September 29, 2015

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(Under separate cover)	

Hazen

Hazen and Sawyer
36-923 Cook Street, Suite 101 • Palm Desert, CA 92234

September 29, 2015

Holly Stuart
Management Analyst
City of Banning
Public Works Department
99 E. Ramsey Street
Banning, CA 92220

SEP 29 2015
City Clerk's Office

Re: Request for Proposals (RFP) for Chromium-6 Treatment and Compliance Study

Dear Ms. Stuart:

We are pleased to submit this proposal to assist the City of Banning (City) to select the most efficient and effective approach to comply with the new Chromium-6 (Cr6) MCL. Up to 7 of the City of Banning's wells do not meet the new MCL and require evaluation and action. We will develop a plan that addresses the new Cr6 limit and anticipated future limits, and provides a timeline and budgets for an integrated set of projects to comply with the MCL. Hazen and Sawyer is ideally suited to help the City with this Study and can assist by providing the City with:

Our team brings to the City of Banning expertise in Chromium-6 treatment from planning to long-term operations.

- **Local Project Manager with Technical Knowledge** - our Project Manager, Jacqueline Rhoades brings technical knowledge of the issues surrounding Cr6 including a track record for delivering projects on time and on budget.
- **A Team with a History on Similar Cr6 Studies in California** - Our California staff have worked on several Cr6 projects, including the first California Cr6 treatment study and design starting in 2002.
- **A Sound Technical Approach** - our approach is built upon our familiarity with the Cr6 issues. Although each system is different, we have a rigorous methodology that starts with exhausting the non-treatment options before investigating more costly treatment options.
- **Operations and Maintenance Focus** - our technical experts and Project Manager have worked closely with operations staff, providing us the ability to focus on the long-term O&M.

Our team will focus on evaluating the priorities and system-specific conditions of the City of Banning to recommend the leading option for Cr6 treatment and brine management that will fulfill the City's treatment and operations goals. Hazen is looking forward to building a long-term, valued, and trusted relationship with the City of Banning.

Very Truly Yours,

Jacqueline K Rhoades

Jacqueline Rhoades, PE
Project Manager

Section No. 2

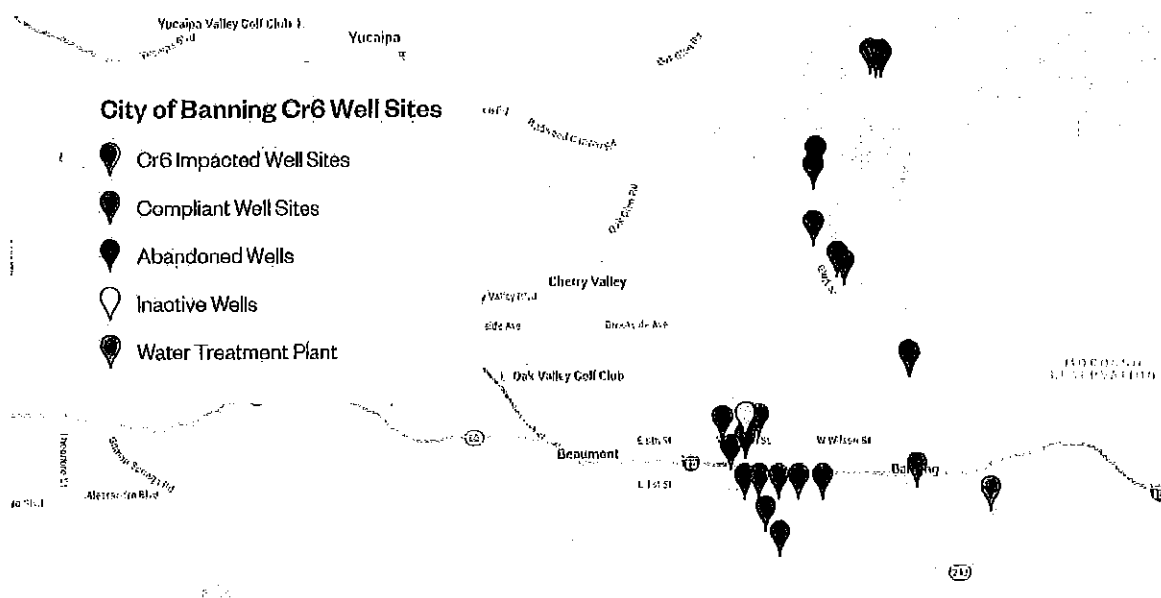
Qualifications of Firm/Project Team

2.1 Understanding

The new Cr6 regulatory limit affects up to seven production wells that are critical to the City of Banning's water supply. We propose to guide the City through selection of options to provide a workable plan.

We are excited to work with the City to develop a plan for groundwater treatment that addresses the Cr6 limit and anticipated future limits, and recognizes the positive effect that water conservation and evolving technology will have in meeting water demands and regulations. This plan will consider the possibilities of non-treatment options including analysis of the dynamic mass profiling project for the potential for well modifications and blending opportunities. Working side by side with City staff, our team will guide the City through selection of treatment or well modifications that can most quickly and cost effectively achieve compliance.

Our team brings valuable experience from other nearby Cr6 impacted agencies, including over twelve years of research in the City of Glendale Chromium program; the evaluation and design of 26 facilities for the Coachella Valley Water District; and fast-track construction and implementation of 3 treatment systems for the Indio Water Authority. We can accelerate the project schedule and provide cost efficiencies for the City of Banning.



2.2 Hazen and Sawyer

To this work, Hazen and Sawyer will bring to the City of Banning:

- Pre-eminent experience in groundwater treatment for chromium, including evaluation of technologies and experience with design and construction management of these facilities.*
- Expertise in facility operations, providing knowledge and assessment of staffing and operational strategies.*
- Established relationships with SWRCB Division of Drinking Water for permitting and technology testing/implementation of Cr6 treatment.*

Since 1951, Hazen and Sawyer has focused on two critical activities – helping our clients provide safe drinking water to their customers, and controlling water pollution and its effects on the environment. Our focus makes us home to many of the world's most knowledgeable and experienced environmental engineers and scientists, each seeking a challenging and rewarding career while making an important contribution to the communities in which we work.

Our commitment to our clients is absolute. Our expert process groups contribute to the latest research and determine how to apply the most effective and efficient technologies to engineer solutions to your challenges. Your goals are our goals, and we offer the insight and experience needed to achieve and exceed them.

National Technical Expertise

Hazen and Sawyer has offices throughout the United States. Our Corporate Structure is not "profit center" based, meaning we can easily assemble the right team from across the country as best fits a project. We will bring the talent most suited for a project, regardless of employee location and at no additional cost to the client. For example, our West region has pre-eminent Chromium treatment experts, the Midwest region can bring unique extensive experience with buried infrastructure, and our Mid-Atlantic region has one of the best hydraulic modeling teams in the country. This provides you with an extensive talent pool, and empowers our Project Managers to deliver the best possible project to our clients.

Principal Business and Services Provided

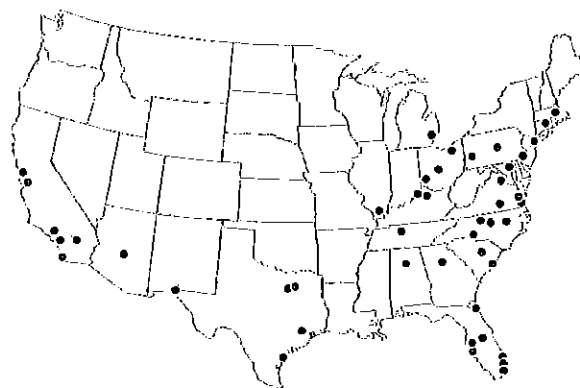
Hazen and Sawyer has extensive experience throughout the US involving the planning, design, and construction management of water, wastewater, distribution/collection system and stormwater management facilities. In potable water, our experience encompasses improvements at large municipal treatment plants, groundwater supplies, watershed, transmission, storage and pumping facilities. We have recently completed Chromium compliance planning for the Coachella Valley Water District and are designing the numerous facilities and pipelines. Our team also delivered a fast-track design for three Cr6 treatment systems for the Indio Water Authority, moving from compliance planning to startup in 6 months. The foundation of our work is through many years of research on Chromium removal from groundwater supplies, allowing for well-

supported analysis, close collaboration with water agency staff to ensure priorities are addressed, and a clear path toward compliance.

The firm has grown steadily over the years, from the original six-person office established by Richard Hazen and Alfred W. Sawyer to a present total staff of over 800 employees, including many who have been with the firm for more than 20 years. Today, Hazen and Sawyer is a professional corporation owned entirely by shareholders that are employees of the Firm. A Board of Directors provides executive level management to ensure we meet our commitments to our clients.

We have seven offices in the Western U.S., including 6 in California - Palm Desert, Los Angeles, Irvine, San Diego, San Francisco, and San Jose, and 1 in Arizona - Tempe (Figure 1). Our local staff in the West has expertise in Chromium, and is adept at leveraging resources from other regions where beneficial.

We endeavor to be a successful, technically focused environmental engineering firm specializing in the water environment, meeting the needs and exceeding the expectations of our clients and staff. We hope to add the City of Banning as a client.



Alabama	Florida	Maryland	Ohio	Texas
Birmingham	Boca Raton	Baltimore	Cincinnati	Corpus Christi
Arizona	Coral Gables	Massachusetts	Columbus	Dallas
Tempe	Hollywood	Boston	Northwest	El Paso
California	Jacksonville	Michigan	Pennsylvania	Fort Worth
Irvine	Orlando	Detroit	Philadelphia	Houston
Palm Desert	Sarasota	New York	Pittsburgh	Virginia
San Diego	Tampa	New York	State College	Fairfax
San Francisco	Georgia	North Carolina	South Carolina	Newport News
San Jose	Atlanta	Charlotte	Charleston	Richmond
Los Angeles	Illinois	Greensboro	Columbia	Virginia Beach
Connecticut	Marion	Raleigh	Tennessee	
Rocky Hill	Kentucky	Winston-Salem	Nashville	
	Lexington			
	Louisville			

Figure 1: Hazen and Sawyer offices.

Core Company Values:

We endeavor to...

1. *Perceive the firm as more than just a business, and focus on the professional and technical aspects of our work.*
2. *Maintain the highest standards of integrity, to build trust with our clients and staff.*
3. *Stay the course in terms of our core practice areas of water and wastewater, incorporating the latest technologies and sustainable solutions to meet our clients' needs.*
4. *Keep bureaucracy to a minimum, to encourage innovation and give staff a sense of contribution and personal responsibility for the quality of our work and the satisfaction of our clients.*

Our track record of project successs on Chromium 6 treatment from concept to construction and operations for WBA, SBA, and RCF technologies will provide the City of Banning with a team who can efficiently help evaluate different approaches..

2.3 Project Team

Our team will be led by Hazen and Sawyer **Project Manager Jacqueline Rhoades**, with Lynn Grijalva as our Principal in Charge. Our team includes other prominent Chromium 6 technology experts, Dr. Nicole Blute and Dr. Ying Wu. Drs. Blute and Wu are pioneers in Chromium 6 treatment, having worked on technology testing from bench-scale through the current operational installations of two municipal treatment systems for removing Chromium 6. An organizational chart is provided in Figure 2 to illustrate the key personnel. Resumes follow these descriptions of our project team members, including the specific qualifications and experience of importance to the City of Banning.

Lynn Grijalva, PE

As Principal in Charge, Ms. Grijalva will support the project team with resources and technical reviews to align Hazen and Sawyer's work products with the timing and needs of the City of Banning's staff, partners, and regulatory agencies. She is skilled in building consensus and communicating clearly with decision makers on challenging issues. She will guide the team on defining treatment elements and distribution system improvements in the context of the City's water resource portfolio.

Jacqueline Rhoades, PE

As Project Manager, Ms. Rhoades will lead our Project Team, ensuring that each task is seamlessly integrated with the others and that decisions are methodically approached and well-documented. She will also direct the evaluation of treatment options, bringing value to the City of Banning with her understanding of design and operational aspects of Cr6 treatment. Ms. Rhoades was the Project Manager for the Indio Water Authority project, delivering on time and budget the evaluation, design, and construction management for three Cr6 Treatment Facilities.

Nicole Blute, PhD, PE

Dr. Blute is highly regarded as one of the leading experts in Chromium 6 treatment in the world. She has studied Cr6 treatment in California since 2002 and her concepts are leading the way for innovative solutions in treatment and optimization. As the technical and QA/QC manager, Dr. Blute will bring to bear many years of operational optimization of treatment processes. Her work on brine treatment optimization will benefit the City of Banning by bringing the latest approaches to maintaining regeneration effectiveness while reducing hazardous waste disposal requirements.

Ying Wu, PhD, PE

Dr. Wu has worked directly with Ms. Rhoades and Dr. Blute for many years working on Chromium 6 projects, in addition to other groundwater treatment. Dr. Wu is the Project Manager for the Glendale projects and will leverage the proven tools and analysis used on these past projects to streamline the City of Banning study and design. Dr. Wu will lead the water quality analysis, groundwater treatment evaluation, and provide engineering support in the conceptual design and cost evaluations components of this project.

Sam Valdez, PE

Mr. Valdez will contribute experience in planning, hydraulic modeling, and design and engineering construction support of pipelines, storage reservoirs, pump stations, and valving stations. He will lead the conceptual design and cost estimate components for this study. He will include realistic treatment footprints that are inclusive of all ancillary systems and infrastructure, and with operability in mind. If desired by the City, he can also perform hydraulic modeling to assess the impact of installing Cr6 treatment.

Carlton Nguyen

Mr. Nguyen joined Hazen and Sawyer from the construction contractor team on the Indio Water Authority Cr6 Treatment Facilities project. Mr. Nguyen will provide field support and data analysis, assisting with the technical evaluation.

Organization Chart

Banning, CA

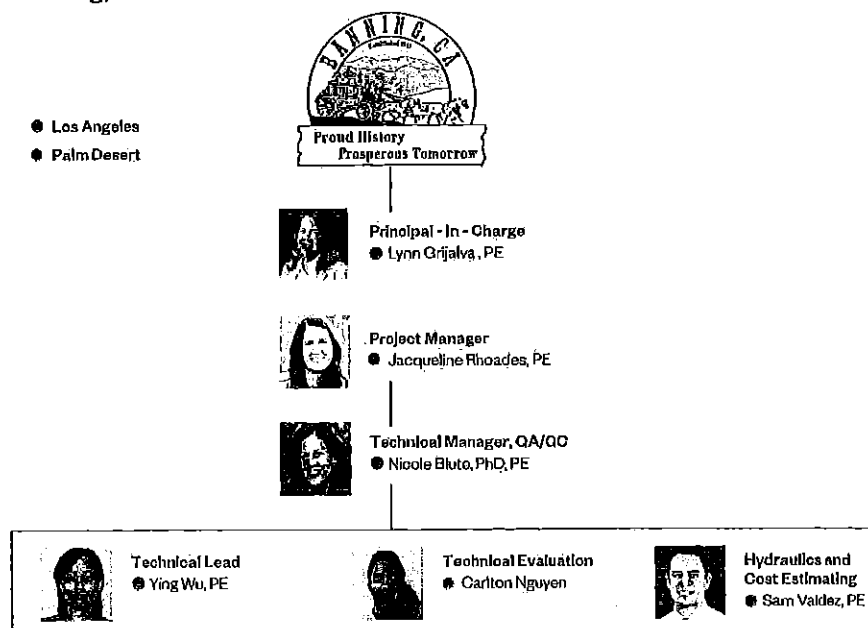


Figure 2: Organization Chart

Section No. 3

References

We bring to the City of Banning engineering services in addition to water quality optimization, including process design and operations evaluation, civil engineering, electrical engineering, controls engineering, permitting, and funding application assistance.

Our team brings to this work a portfolio of groundwater contaminant treatment that includes planning, design, and operations assistance for large and small systems. Our treatment process planning and designs have run the gamut of the best available technologies to innovative approaches for removing various groundwater contaminants, including Cr6. Our staff is comprised of groundwater technology experts who have assisted in pilot testing, evaluation, and cost estimating of:

- Ion exchange resins (SBA and WBA) for Cr6 capacity, including brine minimization, recycling strategies, and treatment and disposal options.
- RCF/RCMF Cr6 removal, including backwash water treatment and recycling, and solids disposal.

The following experience table provides a summary of key Cr6 projects our staff have worked on. An overview of three of these projects is provided in the following pages.

Table 1: Chromium 6 Groundwater Treatment Expertise

Project Name	Compliance Planning	Technology Testing	Cost Estimates	Design	Construction Management
Source of Supply Study and Design of Cr6 Treatment Facilities* Coachella Valley Water District, Palm Desert, CA	✓	✓	✓	✓	✓
Compliance Study and Design and Construction Engineering Services of Cr6 Facilities* Indio Water Authority, Indio, CA	✓		✓	✓	✓
Chromium Options Evaluation and Design*, Santa Ynez River Water Conservation District Improvement District No. 1, Santa Ynez, CA	✓	✓	✓	✓	
Chromium Treatment Evaluation and Facility Operations, City of Glendale, CA		✓	✓	✓	
Chromium Residuals Evaluation for the Association of California Water Agencies, Sacramento, CA		✓	✓		
Compliance Planning, California American Water, Rosemead, CA	✓	✓	✓		

Projects with asterisks in this table are highlighted in brief project capsules immediately following this page.

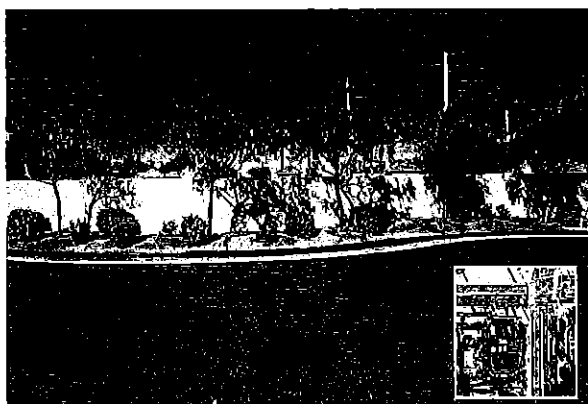
Coachella Valley Water District (CVWD)

- **Source of Supply and Treatment Study**
- **Engineering Design Services for Cr6 Treatment Facilities**

In anticipation of the new MCL, CVWD initiated a Domestic Source of Supply and Treatment Study in December 2013 to evaluate compliance options including treatment and non-treatment alternatives. Of the 30 wells above the MCL, best available and innovative technologies were analyzed. Factors reviewed included cost, residuals handling, operations and maintenance complexity, consistency in treatment and blending, water loss to waste, footprint, and flexibility of the technology for removing constituents that are not currently regulated.

WBA treatment was determined to be most cost effective at 6 well sites clustered at 2 treatment locations with just over 10 miles of raw water conveyance and transmission piping. SBA was identified as most advantageous for groundwater Cr6 treatment at 23 of the existing well sites. A central resin regeneration facility was selected to provide significant cost savings, reduced water loss, and operational advantages including streamlined hazardous waste management. Resin will be extracted from the vessels, transported to the central facility for regeneration, and then loaded back into the resin vessels at the well sites. Optimization testing for treatment of the regeneration waste and solids handling was conducted, with non-hazardous liquid waste being reused or evaporated on site and hazardous solid waste taken off-site to a licensed disposal facility.

A basis of design has been completed as well as a Theory of Operations plan so that operations, maintenance, and staffing are integrated into the design. The detailed design and permitting is underway with a Construction Manager at Risk (CMAR) delivery method for implementation.



Project Highlights:

- Bench, Pilot, and Full-Scale Testing of Chromium 6 Treatment Technologies
- Source of Supply and Treatment Study used an innovative residuals management approach
- Design, permitting process, CEQA Plus certification for well sites and pipelines
- Theory of Operations plan developed early so that operations, maintenance, and staffing are integrated into the design
- A central resin regeneration facility to provide cost and operational advantages in waste minimization
- Alternative delivery (CMAR) used to enhance preconstruction and implementation schedule

Team Members: Lynn Grijalva, Jacqueline Rhoades, Nicole Blute, Ying Wu, Sam Valdez

Project Contact:

Steve Bigley
Environmental
Services Director
SBigley@cvwd.org
75515 Hovley Ln E.
Palm Desert, CA 92211
760.398.2661, x2286

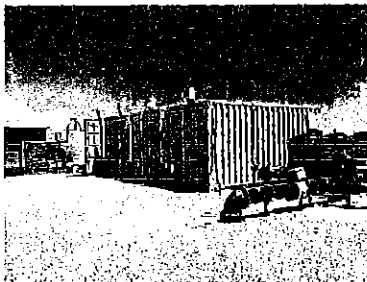
Project Highlights:

- Multi-agency Chromium 6 compliance study
- Fast paced evaluation, design, procurement, and construction avoided violation of the Cr6 MCL
- Treatment facilities went from concept to operational in six months

Team Members: Lynn Grijalva, Jacqueline Rhoades, Nicole Blute, Ying Wu, Carlton Nguyen

Project Contact:

Brian Macy
General Manager
bmacy@indio.org
83-101 Avenue 45
Indio, CA 92201
760.625.1808



Indio Water Authority (IWA)

- Chromium 6 Compliance Study
- Design and Construction Engineering Services for Three Chromium 6 Facilities

Hazen and Sawyer conducted a Cr6 treatment and compliance study for the Indio Water Authority (IWA) that included an evaluation of compliance options for twenty IWA wells. This study was part of a multi-agency effort with the Coachella Water Authority (CWA) that also included evaluation of six CWA wells and considered surface water treatment. The compliance study used a scenario-based approach that considered varying levels of groundwater treatment for current and future water demands. These scenarios were evaluated in terms of cost, operational complexity, implementation complexity, and other water quality benefits, to site and select the technologies at each required treatment facility. Finally, conceptual designs and overall project costs were prepared for the primary treatment components of the selected facilities.

Prior to the completion of the Compliance Study Report, IWA staff identified three wells that with treatment could meet the Cr6 MCL and produce sufficient water to enable IWA to meet peak summer water demands in 2015. To meet these demands and stay in compliance, treatment for these wells needed to be planned, designed, permitted, installed, and operational by July 2015. To do this, IWA contracted Hazen and Sawyer to perform a separate evaluation of treatment options for these wells.

IWA selected a containerized treatment approach (ion exchange equipment housed in metal shipping containers) for these wells with treatment equipment purchased from IonexSG. Working with the equipment supplier IonexSG, the contractor Borden Excavating, and Hazen and Sawyer for engineering and construction management services, IWA brought these three wells online in July 2015 with Chromium 6 concentrations that meet the MCL.

"The project has gone from concept to operational in six short months. Whether it was the technical memorandum that allowed us to secure the treatment equipment in less than four weeks, the bidding documents six weeks later, or the ten week construction period; every deadline was met to enable IWA to maintain its aggressive compliance schedule."

-Brian Macy, General Manager of the Indio Water Authority.

Santa Ynez River Water Conservation District Improvement District No. 1

- Chromium 6 Options Evaluation
- Pilot Testing and Assessment of Operations

The Santa Ynez River Water Conservation District Improvement District No. 1 (District) has been diversifying their water portfolio through investments in groundwater. Drilling of new, high-producing, efficient, deep wells has provided the District with a reliable, local source of water that is not subject to the risks of drought and seismic events interrupting imported water deliveries. The Santa Ynez groundwater has natural occurring Cr6 that exceeds California's MCL in many of the wells that serve the communities throughout the District.

Working with a Cr6 task force team assembled by the District, Hazen and Sawyer conducted a Chromium 6 Options Evaluation of the District's system to assess possible compliance options. Each of the options considered in the evaluation was carefully customized to fit the unique well conditions, water quality, available land, and disposal methods for waste products. Hazen and Sawyer recommended the following Action Plan that was initiated to bring the District into compliance:

1. **Community involvement/outreach.** The public and stakeholders are being brought into the decision process to gain their insights and keep them informed throughout the process.
2. **Comprehensive water quality sampling.** A thorough characterization of Cr6 levels in the wells during startup of the wells, after sustained pumping is being completed.
3. **Alternatives evaluation.** Five potential alternatives were identified including non-treatment and treatment, requiring engineering analysis to assess feasibility of the approach. One well was identified for modification with a packer, while clustered treatment was proposed for another group of impacted wells.
4. **Implementation plan.** A timeline for design, construction, and environmental compliance/permitting is being developed.
5. **Design of piping, treatment, and/or storage facilities.** The District is expected to need additional piping, treatment, and possibly storage facilities and has contracted Hazen and Sawyer to complete the design.
6. **Construction and Commissioning.** Facilities would be constructed, integrated into the existing system, and started up in this task.

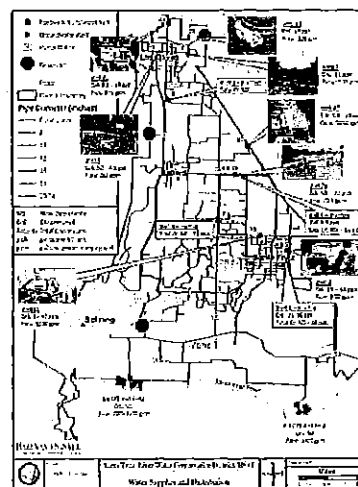
Project Highlights:

- Comprehensive alternatives evaluation of non-treatment and treatment options
- Pilot-scale testing of Cr6 treatment
- Design services for wells requiring treatment

Team Members: : Lynn Grijalva, Jacqueline Rhoades, Nicole Blute, Ying Wu

Project Contact:

Eric Tambini
Water Resources Manager
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3622 Sagunto St
Santa Ynez, CA 93460
805.688.6015



Section No. 4

Strategy and Implementation Plan

Our team proposes to assist the City of Banning with narrowing the large number of options for managing Cr6 to an optimal, integrated set of projects that meets the City's goals. Our objective is to maintain a highly reliable and cost effective supply of high quality drinking water for current demands and future economic development.

Our team has already performed extensive analysis on groundwater throughout California and can apply this background knowledge to meet the City's schedule. Similar to this project, we have evaluated non-treatment approaches and a broad range of groundwater technologies that provided a best fit for meeting our client's goals.

Our team will focus on evaluating only the City of Banning priorities and system-specific conditions to identify the leading option for managing Chromium 6 compliance.

Table 2: Scope of Work Strategy

Project Task	Our Team's Approach for Successful Project Completion
TASK 1 - PROJECT MANAGEMENT, COMMUNICATION, AND MEETINGS	✓ Conduct regular meetings to ensure the project goals are clear and tasks are on schedule. ✓ Communicate frequently to gain feedback throughout the project and to incorporate City perspectives.
TASK 2 - DATA COLLECTION AND PRE-STUDY ANALYSIS	✓ Gather and review available water quality and well production data. ✓ Conduct a capacity analysis to identify and prioritize actions for impacted wells, documenting the impact in relation to demands and existing infrastructure. ✓ Communicate with contractor of Dynamic Mass Profiling Project to explore possible modifications to existing wells, and determine where to locate new wells. ✓ Identify opportunities to blend Chromium 6 impacted wells with compliant wells.
TASK 3 - EVALUATE TREATMENT ALTERNATIVES	✓ Define treatment goals, operational preferences, and water management philosophy. ✓ Conduct analysis of available Cr6 treatment technologies, including best available technologies strong-base anion exchange (SBA), weak-base anion exchange (WBA), reduction/coagulation/filtration or microfiltration (RCF/RCMF), reverse osmosis, and other non-BAT technologies (biological). ✓ Identify the most feasible technologies for the wells that need treatment. ✓ Assess the operational implementation factors of the most favored technologies. ✓ Conduct a conceptual level cost analysis, including costs to design, construct, and operate Cr6 treatment facilities
TASK 4 - PREPARE CHROMIUM 6 TREATMENT AND COMPLIANCE STUDY REPORT	✓ Document project findings in a clear and transparent manner. ✓ Provide a clear guide for project decisions, budgeting, and design.
OPTIONAL ADDITIONAL SERVICES:	✓ Perform modeling runs (by our project team instead of City staff) turning off Cr6 impacted wells to evaluate current and future demand scenarios.
• Hydraulic Modeling • DDW Coordination and Permitting • Funding Application Assistance	✓ Coordinate communication of the selected approach to DDW including presentations, conference calls, and meetings ✓ Prepare State Revolving Fund and Proposition 1 grant funding applications for selected Cr6 management approach.

Our strategy to address the scope of work is summarized in Table 2 below and detailed in the following section.

4.1 Strategy

The Cr6 Treatment and Compliance Study includes the following steps:

1. Quantify the impact of Cr6 on the City of Banning system
2. Evaluate non-treatment options
3. Perform treatment evaluation

Quantify impact. A capacity analysis will be performed to determine if wells impacted by Cr6 could be abandoned. Wells that are currently out of compliance, as well as those that could be impacted in the future will be evaluated. The analysis will consider historical well production by pressure zone and examine whether there is enough storage to meet current and future water demands with the remaining wells if the Cr6 impacted wells are turned off. Possible City priorities for avoiding stranded assets will also weigh on the outcome.

Non-Treatment Options. Findings from the Dynamic Mass Profiling Project being conducted in parallel with this Study will be reviewed to understand the horizontal and vertical distribution of Cr6 in the City's wells and to evaluate the feasibility of using well screen modifications to avoid Cr6 treatment. We will work with the contractor on that project to also understand if there are favorable areas to construct new wells to avoid treatment. Other non-treatment options to be evaluated include opportunities for groundwater blending.

Treatment Evaluation. Once non-treatment options are exhausted, wellhead and/or clustered treatment options for available technologies will be examined.

Following these steps will answer a number of important questions for the City (Table 3), to ensure that all feasible alternatives are analyzed in the Cr6 compliance strategy. A step-wise approach will be used as depicted in Figure 3.

Table 3: Treatment Evaluation Steps

Evaluation Step	Questions Answered for the City of Banning
Quantify Impact of Cr6 on System Capacity	✓ Can needs be met if Chromium 6 impacted wells are abandoned?
Assess Groundwater Basin	✓ Can wells be modified to avoid Cr6 treatment? ✓ Where can new wells be sited? ✓ Are there other constituents that may require treatment now or in the future?
Identify Opportunities for Blending	✓ Can impacted wells be blended with nearby wells below the limit? ✓ Are there opportunities for surface water blending?
Perform Treatment Evaluation	✓ What is the optimal location and required size of treatment facilities? ✓ What technologies are feasible? ✓ What are the costs and operational requirements of treatment technology options?

Our Stepwise Evaluation Approach to the Cr6 Treatment and Compliance Study

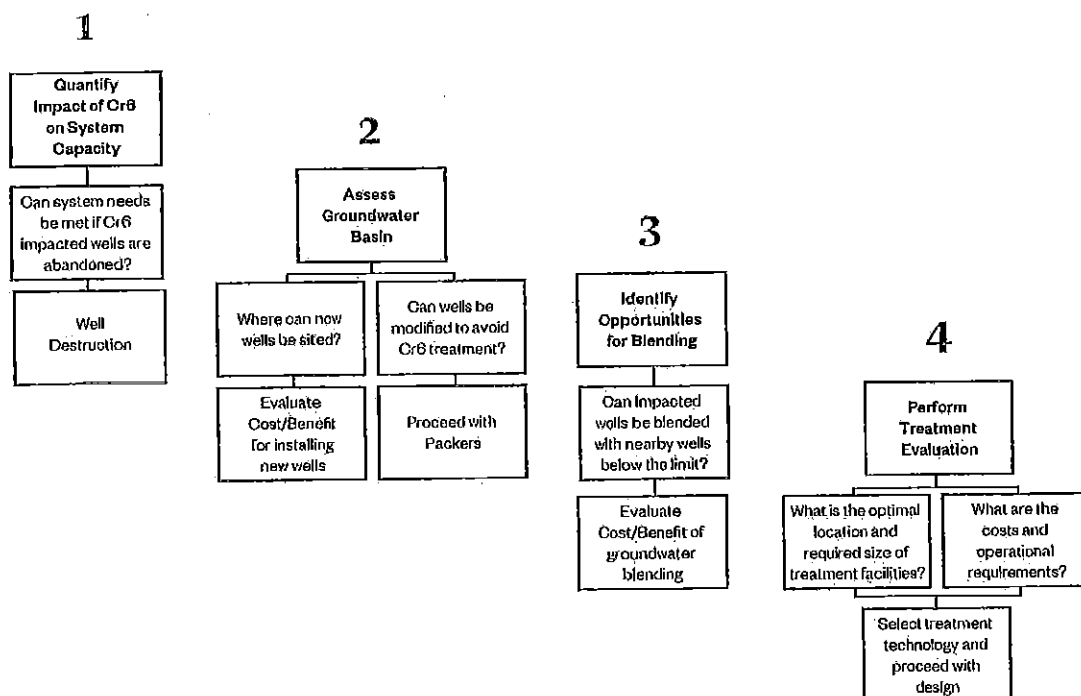


Figure 3: Stepwise Evaluation Approach

4.2 Implementation Plan

Task 1 – Project Management, Communication, and Meetings

- a. **Project Manager:** Jacqueline Rhoades will be Hazen and Sawyer's designated Project Manager, who will serve as the point of contact and coordinate all communication with the City of Banning. Our management approach includes well-defined roles and responsibilities of each resource and the lines of communication among team members and the City, as well as plans for maintaining QA/QC.
- b. **Project Kick-Off Meeting and Review:** The first meeting will be a project kick-off with City of Banning staff to review project goals, site-specific conditions, available water quality and operational information, and other information as necessary to support the project.
- c. **Project Schedule, Status Report, and Project Progress Meetings:** Frequent project meetings will be used to address critical decision points with the City. We will keep continuous communication with the City via emails and phone calls to provide timely updates. This will ensure that recommendations have been prepared with an understanding of the City's priorities and can withstand possible scrutiny for implementation. We will provide an initial schedule with milestones using MS Project and review this schedule during monthly progress meetings. We will prepare and submit meeting minutes within five working days after the meeting to memorialize project decisions.
- d. **Decision Workshop:** We plan to hold a meeting with City staff to review the preliminary Study findings alongside the City's goals and select the recommended approach.

Task 2 - Data Collection and Pre-Study Analysis

- a. **Site Survey/Visit:** One day of site visits is planned to identify potential locations for treatment facilities within the City of Banning. Following the site visits, available historical water quality data and well production data will be reviewed and trends developed to categorize Cr6 impacted wells. It is assumed that data will be provided in an excel database format.

Pivot tables and charts will be created to review to summarize the information and present data trends.

- b. Water Demand Analysis:** We will conduct a capacity analysis that documents the effect of removing Cr6 impacted wells from service with respect to current and future demands. The analysis examines the lost capacity in each service area that must be accommodated with additional groundwater pumping. Working closely with City staff, our team will develop scenarios for analysis that consider current and future demands. Figure 4 shows an example of the City's water supplies versus projected demands and highlights the fraction of groundwater supply that is currently impacted by the Cr6 MCL. For each scenario, impacted wells can be systematically turned off until demands can no longer be met with other existing wells. The capacity shortfall (if it exists) will be documented for each service area.

This evaluation does not include hydraulic modeling analysis of installing Cr6 treatment facilities. If non-treatment options are exhausted and Cr6 treatment is recommended, the first step of preliminary design of the treatment systems should examine the lost well capacity associated with treatment system head-loss and any associated infrastructure improvements associated with siting treatment systems. For the purposes of this proposal it was assumed that City staff would conduct the modeling runs; however, at the City's request, our team can conduct the hydraulic modeling as an additional service.

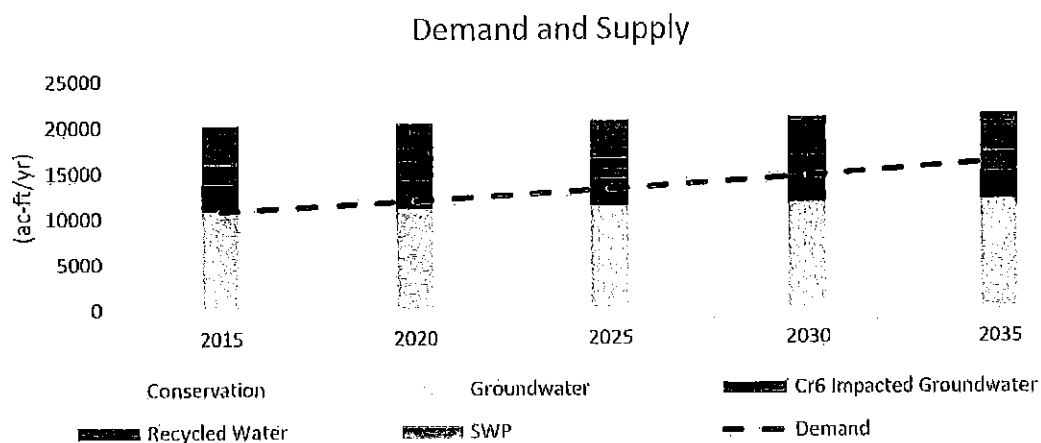


Figure 4: Water Supplies and Demands

- c. **Water Quality Testing:** We will review available groundwater quality data with City staff to obtain sufficient information for understanding of historical water quality variations. We will identify if additional water quality testing is needed. If applicable, all testing shall be performed by a certified laboratory with lab costs paid separately by the City. Based on a preliminary review of available data, the City of Banning wells can be characterized as having Cr6 concentrations ranging from zero to 22 µg/L, moderate alkalinity (110 to 220 mg/L), low sulfate (4 to 50 mg/L) and TDS (160 to 290 mg/L). Other co-occurring constituents such as arsenic and nitrate if present were detected at levels well below the MCL. Additional constituents that could impact treatment selection will be assessed including aluminum, iron, manganese, and uranium, which have been detected in City of Banning wells.

Task 3 - Evaluate Treatment Alternatives

An evaluation will be conducted that considers both non-treatment options and various treatment alternatives. The evaluation will examine individual wellhead and clustered treatment options for wells. Available Cr6 treatment technologies will be considered, including best available technologies strong-base anion exchange SBA, WBA, RCF, RCMF, RO, and other non-BAT technologies (e.g., biological treatment and adsorptive media). The most feasible technologies for the wells that need treatment will be identified. These leading technologies will be compared based on lifecycle costs, operational requirements, and other City of Banning criteria to recommend a treatment technology for the wells requiring treatment.

Treatment Analysis to Site and Size Treatment Facilities: The first step in determining treatment requirements is to define City goals. Typically, 60 or 80 percent of the MCL is used as a treatment target, which determines the size and operational requirements for the treatment system. Opportunities may be available to use a partial stream treatment with bypass and blend approach to save costs. Table 4 presents a summary of well capacity information including the treatment system size for a partial stream treatment with bypass and blend approach. Individual wellhead and clustered treatment facilities will be considered. Previous analysis suggests that clustering wells often offers cost savings compared to treatment at individual wells, but the savings depend on necessary pipelines to bring water into a central facility and then distribute it, as well as available land cost, and operational requirements. For example, Wells M10, M11, and M12 are in close proximity with little nearby development and may be good candidates for a clustered treat-



Wells M10, M11, and M12 may be candidates for a clustered treatment facility.

Table 4: Summary of Well Capacity

Well	Avg Cr6 (µg/L)	Average Annual Production, 2010-2014 (gpm)	Well Capacities (gpm)		Design Yield (gpm)	Average Utilization (%)	Estimated Treatment System Capacity (gpm)
			High	Low			
C2	17.0	89	1100	1000	1095	8%	660
C3	15.5	409	1000	900	1200	34%	670
C4	13.0	329	1350	1200	1500	22%	690
C6	13.0	287	900	850	1000	29%	460
M3	9.5	244	950	800	950	26%	*
M10	10.5	98	800	500	890	11%	*
M11	12.5	260	600	500	700	37%	300
M12	22.5	146	1000	950	700	21%	500
CR6 IMPACTED GW SUPPLY		1862			8035		3280
TOTAL GW SUPPLY					24300		
% GW SUPPLY CR6 IMPACTED					33%		

* Assumes Cr6 Finished Water Blend Target of 8 µg/L and Cr6 Treatment Target of 2 µg/L.

* Non-Treatment approach likely to be recommended.

ment facility. In contrast, Well M3 is located in a residential area and any treatment at this location (if necessary) would have to be minimally impactful. Wells C2 and C4 are sited on smaller lots and may require the additional adjacent or nearby land. All of these factors will be considered in this analysis. For each option, conceptual design information sufficient for development of cost estimates and facility planning will be developed. While we are focusing on the removal of Cr6, at the same time we will keep a holistic view of potential advantages of technologies for removal of other contaminants in the future.

- a. **Blending Evaluation:** In this subtask, our team will identify and evaluate opportunities to achieve compliance by blending Cr6 impacted wells with nearby compliant wells. Wells in close proximity will be considered and infrastructure improvements necessary to implement the blending scheme will be identified.

b. Well Head Treatment Evaluation: For the wellhead treatment evaluation, we will leverage conceptual evaluations that Hazen and Sawyer has developed for similar facilities at CVWD, Indio Water Authority and Santa Ynez. We will prioritize wells for treatment based on current utilization, water quality profile, and the portfolio of supplies available in that area for reliable service. City preferences on treatment goals, residuals management (e.g. brine minimization or sewer disposal options), and operational requirements will be discussed and defined in our monthly meetings. The City of Banning's water management philosophy will be assessed for guiding groundwater treatment alternative selection. The potential size and locations of groundwater treatment plants will be assessed from this perspective. Groundwater treatment technologies will be assessed with respect to the following key drivers:

1. Pre- and post-treatment requirements for treatment process performance and distribution system corrosion control
2. Impacts of water quality on treatment effectiveness
3. Residuals management issues – quantity and quality, including residuals treatment approaches such as brine treatment and disposal options

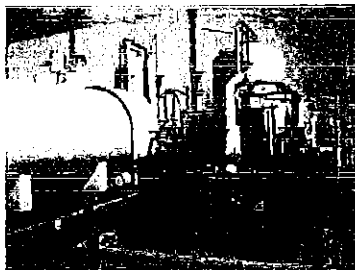
i) Ion Exchange (SBA and WBA)

1. Evaluate the pre-treatment and post-treatment, including pre-filtration, pre- and post- pH adjustment for WBA, treated water stabilization (when necessary) and blending (when necessary).
2. Evaluate constituent removal effectiveness, with consideration of the impacts of other contaminants on Cr6 removal, for example, sulfate.
3. Evaluate residuals management, including resin replacement frequency, spent resin quantities and characteristics, spent brine quantities and characteristics (for SBA only), spent brine treatment and disposal (for SBA only).



SBA Treatment at Indio Water Authority

Pre- and post-treatment is necessary for the WBA process and is a primary cost driver, if alkalinity levels are high. This technology is significantly simpler than the others, and may be particularly attractive in more remote areas both for operations and waste disposal. By comparison, SBA generates spent brine that requires treatment to remove the hazardous chromium component (and possibly other co-occurring constituents such as arsenic), essentially resulting in a RCF process to treat the SBA brine before disposal.



WBA Treatment at the City of Glendale

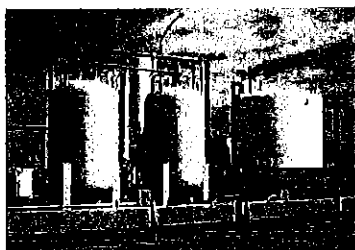
Opportunities for minimizing brine through recycle and considering alternative disposal options will be included in this analysis. Since SBA and WBA have been accepted by DDW as Best Available Technologies for Cr6 (in addition to RCF and RO), the permitting time is less than alternative technologies, which will be an advantage for early start projects if that is a priority of the City.

Our preliminary analysis suggest SBA is likely the cost effective technology as the raw water contains relatively low sulfate levels. Brine waste is the most challenging aspect of the SBA technology.

ii) RCF (conventional and microfiltration)

1. Evaluate pre-treatment and post-treatment needs.
2. Evaluate projected constituent removal effectiveness.
3. Evaluate residuals management, including backwash water quantities and characteristics, spent backwash water treatment and recycle potential, and settled solids characteristics and disposal. Limitations on waste disposal to the sewer will be identified and the need for backwash water recycled evaluated.

The RCF process requires different steps compared with ion exchange. Our experience guiding and evaluating RCF for full scale Cr6 removal from Glendale's raw groundwater has demonstrated the necessary backwashing, chemical feed controls, and automated feedback loops to ease operational burdens.



RCF Treatment at the City of Glendale

Since RCF is a best available technology, it also has a scheduling advantage for permitting and regulatory approval, as well as having proven performance criteria for design of the system. Our recent work has been on optimizing the RCF process to minimize the footprint and number of unit processes.

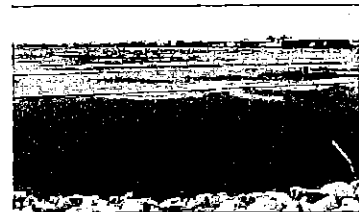
The cost effectiveness of the RCF process will hinge on sewer disposal options and the City's priorities in maximizing water usage. For example, disposal of untreated backwash water to the sewer would require sewer capacity for 3 to 5% of the treated flow or settling of the backwash water with recycling to the head of the plant to reduce the water loss to 1% or less. Both approaches work – with the recycling option offering a solution if sewer discharges are restricted or costly, but with additional capital facilities needed and larger footprint for minimization of water loss. Applicability of this technology to the City of Banning and comparison to other technologies will be evaluated in this project.

iii) Reverse Osmosis

1. Evaluate pre-treatment and post-treatment including pre-filtration, and post water quality stabilization and/or blending.
2. Evaluate constituent removal effectiveness, including the ability to remove other contaminants.
3. Evaluate residuals management, including RO membrane concentrate quantities and characteristics, disposal options for concentrate and wastewater containing high concentrations of membrane cleaning chemicals.

RO is a Cr6 best available technology based on bench testing of removing the relatively large Cr6 molecules, and this technology will have an accelerated permitting schedule compared with non-best available technologies. RO has only been bench tested at Glendale and implemented in POU applications at Hinkley, CA for Cr6 removal. However, Hazen and Sawyer's experience with desalinating brackish groundwaters will provide the necessary insight into long term maintenance, cleaning and performance on the City of Banning groundwater.

The key challenge with RO treatment is generation of a large quantity of salty concentrate waste (15-25% of the treated flow), which will require consideration of alternate approaches to concentrate disposal such as evaporation ponds. Salt loading to the sewer may not be sustainable if recycled wastewater is used for irrigation. An RO approach becomes most attractive for treatment of groundwater that also has high total dissolved solids (TDS).



Standard Evaporation Ponds for Brine

iv) Biological Reactor (fixed bed, fluidized bed, and membrane)

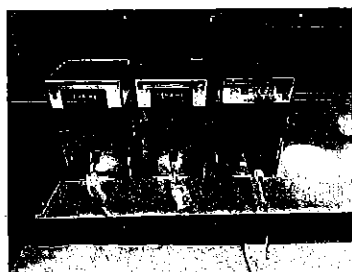
1. Evaluate pre-treatment and post-treatment, including chemicals as nutrients for bacteria, ferrous iron to accelerate Cr6 reduction, aeration, and post filtration for turbidity control.
2. Evaluate constituent removal effectiveness, including the impact of acclimation period, system robustness to disturbances.
3. Evaluate residual management, including water loss and disposal options

Our team has experience with biological treatment in combination with filtration processes. We also have independent knowledge about the various biological treatment systems the City of Banning would like to evaluate, including fluidized bed bioreactors, fixed bed bioreactors, and membrane bioreactors. A hurdle this technology must overcome is a lack of full-scale drinking water treatment facilities.

Prior testing of a fluidized bed bioreactor for Cr6 indicated that a reducing agent such as ferrous iron may need to be added, with downstream filtration to remove the particles and turbidity, which indicates that the biological component might not provide an advantage for Cr6 removal compared with RCF. Instead, this technological approach is more of interest if co-occurring contaminants like nitrate and perchlorate require removal and brine disposal is problematic. Without these co-occurring constituents, a non-best available technology approach is not likely to be recommended. If worthwhile to the City of Banning, our team can provide guidance through the DDW methodologies for granting conditional approval of technologies in lieu of best available technology status.

v) Brine Treatment Alternative & Hybrid Treatment Systems (includes biological, catalytic and electrochemical brine treatment)

1. Evaluate brine disposal options, including necessary land and facilities for brine evaporation ponds and costs for offsite disposal.
2. Evaluate pre- and post-treatment necessary for brine treatment, constituent removal effectiveness, and residuals management alternatives



Treatment to Render Brine
Non-Hazardous

Brine or concentrate disposal can be a significant operating cost for SBA and RO treatment. In this project, we will identify the potential disposal cost variables and the impacts that brine or concentrate disposal could have on long-term operations. For these options, brine could be treated prior to disposal. For example, in the case of SBA, Cr6 is often removed from the brine with a reduction, precipitation, and filtration method to make the brine non-hazardous. The resulting sludge must then be dewatered and disposed to a suitable facility (i.e., hazardous in California). Electrocoagulation treatment is being tested at CVWD for Cr6 brine treatment.

In a temperate environment, the use of evaporation ponds can be an effective solution for on-site brine management. The brine can be delivered sequentially, over time, to a series of ponds that are managed at different specific gravities until saturation and precipitation of salt occurs. Evaporation can be enhanced, resulting in smaller required land area. Other approaches like salt gradient ponds, mechanical evaporation, or deep well injection are also options but likely to have significant hurdles to overcome for the City of Banning.

- c. **Well Modifications:** The horizontal and vertical distribution of Cr6 will be characterized in the parallel Dynamic Mass Profiling Project. We will communicate with the contractor from that project to evaluate the feasibility of well screen modifications to avoid Cr6 treatment and also to identify favorable areas to construct new wells. Other non-treatment options to be evaluated include opportunities for groundwater blending.

System Operations Evaluation. Waste disposal requirements, chemical use, energy cost, filter run times, resin run times, headloss through resin beds and filters, and equipment longevity are important factors that will be evaluated with the City of Banning. We will provide the City with our team's detailed knowledge of full-scale municipal water treatment facilities using WBA and RCF technologies at the City of Glendale and SBA at CVWD and Indio, CA. Opportunities for minimizing waste, such as with brine recycle in SBA, will be evaluated based on recent studies at CVWD, IWA, California Water Service Company, and Soquel Creek Water District. Lessons learned from the WBA and RCF facilities at Glendale will be employed by our team, allowing for more operationally resilient and effectively designed facilities for City of Banning.

A differentiator anticipated for different technologies is operator certification and staffing requirements, which will be assessed for all of the technologies. It is often wise to install treatment technologies that can be remotely controlled by SCADA. Given that some wells may operate intermittently to meet peak demands, the compatibility of on-off treatment is important to manage. The technology selected must be reliable after repeated backwashed and regenerations, not prone to media binding or sensitive controls and not impacted by frequent on and off use strategies.

Infrastructure Site Analysis: We will evaluate right-of-way and easements required to locate pipelines and potential sites for recommended Cr6 treatment facilities.

Cost Analysis. We will develop cost estimates for each treatment option to contribute to recommendation and to provide a clear picture of the financial resources necessary for implementation. In the past few years, we have developed detailed costs estimating curves for all of the best available technology Cr6 treatment systems. We have been using those cost curves and developing implementation costs for several water systems including CVWD, IWA, Glendale, Santa Ynez, and California American. Other engineers have used these cost curves for a WaterRF web-based tool and cost of compliance estimates. Recently, IWA cost



Use of Blending such as at the Well C2 Tank will be Addressed.

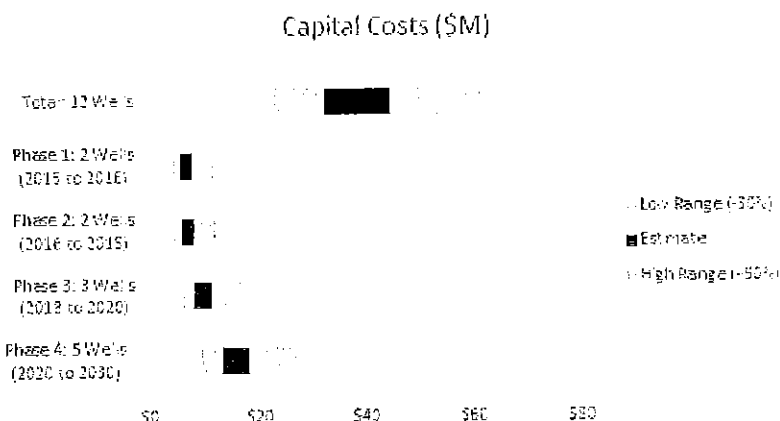
curves were proven to be excellent estimates that reflected actual construction costs at three facilities.

City of Banning specific factors, such as well utilization, time of use, water quality, residuals, disposal options, and other costs like land and buildings for treatment will be applied to tailor the treatment design and estimates to the City.

The accuracy of O&M costs is an important factor for understanding life cycle costs. Our team has hands-on experience evaluating operations, including Glendale's WBA and RCF and CVWD's and IWA's SBA facilities.

For the City of Banning, we will develop conceptual level AACE Class 5 (-30% to +50%) cost estimates to compare the leading Cr6 treatment technologies, including the costs to design, construct, and operate the treatment facilities. Equipment only, total project capital costs, operating costs, and lifecycle costs will be used for the comparison. An example capital cost estimate is shown in Figure 5 below.

Figure 5: Example of Capital Cost Estimate



Technology Recommendation and Facilities Schematic. We will compare the most feasible Cr6 treatment technologies based on life-cycle costs, operational requirements, and other potential non-cost City of Banning decision criteria. The following key drivers will be considered:

- Impacts of water quality on treatment effectiveness for the City's diverse groundwater qualities;
- Pre- and post- treatment requirements for treatment process performance and distribution system corrosion control;
- Residuals management issues – quantity and quality, including residuals treatment and disposal options;
- Case history of technology implementation for Cr-6 or other similar contaminants – downtime, availability and cost of chemicals, control reliability,

We will prepare 11x17" schematic drawings showing the location and size of the recommended potential treatment facilities based on preliminary plant sizing and will also show connection locations and major pipe alignments.

Task 4 – Prepare Cr6 Treatment and Compliance Study

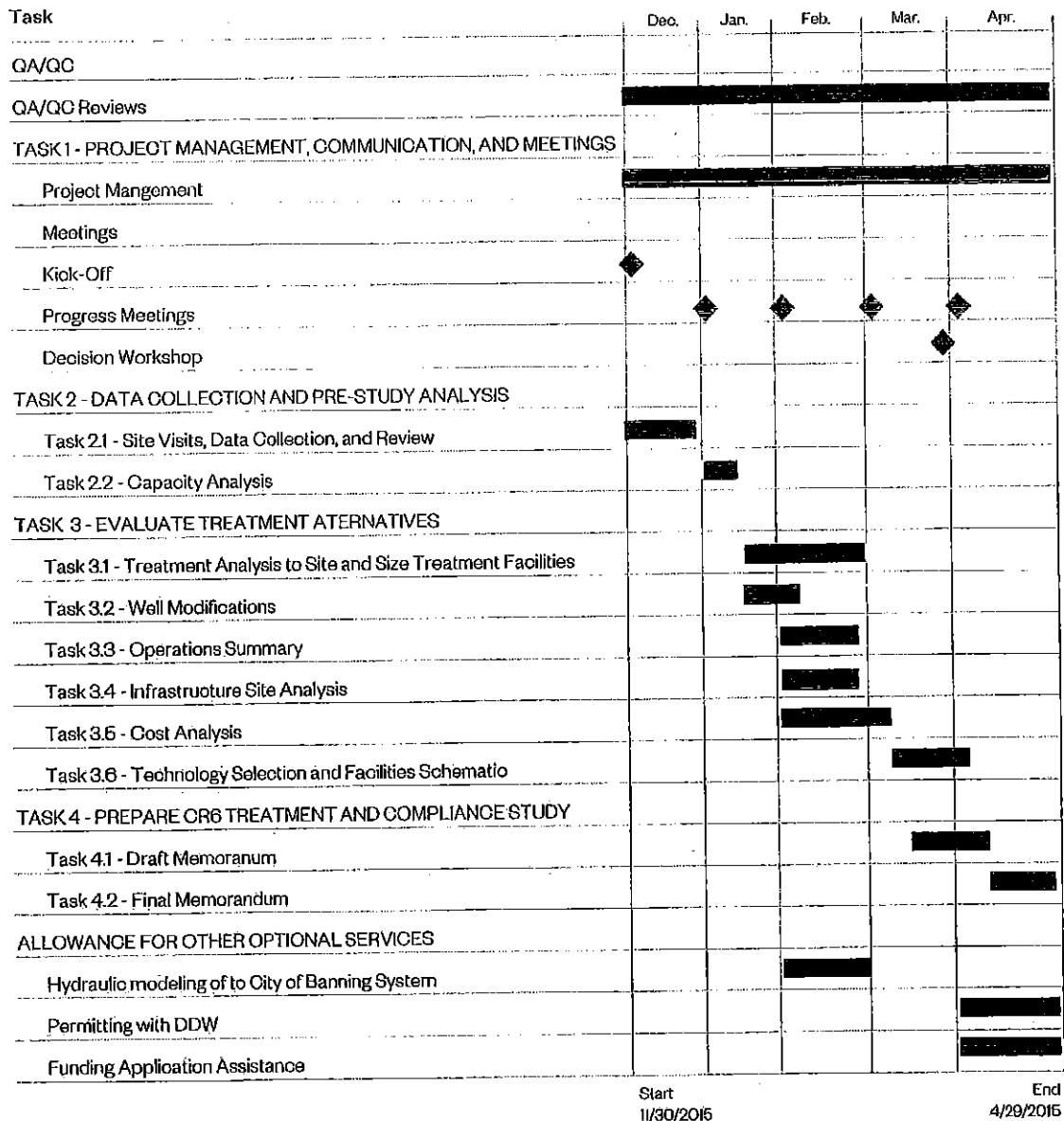
Draft Memorandum and City Review. Hazen and Sawyer will prepare a memorandum to summarize the information from Tasks 2 and 3 and will review the preliminary findings to the City in a decision workshop setting.

Final Memorandum. A final memorandum of the Cr6 Treatment and Compliance Study will be produced that recommends and outlines the next steps for a compliance option that meets the City's goals. If desired by the City, our team will support with presenting to DDW the recommended option and providing assistance with grant funding applications.

Project Schedule

Our proposed project schedule is provided below. It shows the planned progression of the project starting with the Kick-off Meeting and ending with the finalization of the Memorandum that outlines the findings of the Study. The schedule is developed based on the understanding that the City would issue notice to proceed on November 30, 2015. The schedule identifies the major tasks and subtasks that need to be undertaken, as well as activities that will need to occur concurrently such as the data review, capacity analysis in Task 2 and the cost estimating and operations evaluation in Task 3. We are proposing a timeline of completing the project and providing a final Study report by April 29, 2015, which will lay the framework for furthering coordination with DDW, securing project funding, and moving forward with design and implementation of the selected option.

Project Schedule



Section No. 5

Proposed Quality Assurance Program

A core element of Hazen and Sawyer's business practice is to provide quality engineering services and products. Commitment to providing quality to our clients is an attitude that is inherent to Hazen and Sawyer's culture in every work product we deliver. To support this commitment, Hazen and Sawyer has developed Quality Assurance Policies that our staff implement in all planning, studies, designs, and for design services provided during construction. Our QA/QC approach includes the development of the QC Plan at the onset of the project, performing milestone QC reviews, and updating documents to address review comments in advance of the City's review.

As Project Manager, Jacqueline Rhoades will be in overall charge of the project and is ultimately responsible for the quality of all deliverables, meeting the needs of the City of Banning, and fulfilling the requirements of the Hazen and Sawyer's quality policies. At the onset of the project and working closely with the QA/QC leader, Dr. Blute, Ms. Rhoades will establish a QC Plan with budgets and a review schedule. As QA/QC leader, Dr. Blute will lead the resolution of quality-related issues. She will provide ongoing input to the design process with developing concepts, selecting/evaluating design alternatives, and making design decisions. Dr. Blute will work with the project engineers to review all design documentation including project notebooks and/or organized electronic files that clearly define the basis for the design and how these have been used. Our entire team assigned to this project will contribute directly to the overall quality of the project deliverables and play a role in the quality assurance program.

Section No. 6

Fee Proposal

Please refer to the separate sealed envelope for our fee proposal. As required by the RFP, the fee schedule includes a not-to-exceed fee for our services outlined in this proposal.

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Education

MS Environmental Engineering,
University of Arizona, 2007

BS Chemical Engineering,
University of Arizona, 2005

Certification/License

Professional Engineer (Civil), AZ
License 52758

Water Treatment Plant Operator
(Grade 2), OP032499

Areas of Expertise

- Project Management
- Water Quality Compliance and Planning
- Groundwater Treatment
- Bench, Pilot, and Demonstration Testing

Experience

- 11 total years
- 2 years with Hazen

Professional Activities

Secretary, AZ Water Association

Select Society of Sanitary Sludge
Shovelers

AWWA

WEF

Jacqueline Shaw Rhoades, PE

Senior Principal Engineer

Ms. Rhoades project experience has focused in areas of drinking water treatment including: Water Quality Compliance and Planning; Process Selection, Evaluation, and Testing; Treatment Operations, Commissioning, and Optimization.

Indio Water Authority Cr6 Treatment Facilities

Project Manager for the evaluation, design, and construction of Cr6 treatment facilities for three 3200 gpm wells. Project work included conceptual evaluation and cost estimating, design, preparation of bidding and construction documents, and engineering services during construction. Time was of the essence in this project allowing six weeks for evaluation and process selection, six weeks for design and bidding, and twelve weeks for construction.

Indio Water Authority and Coachella Water Authority – Chromium-6 Treatment and Compliance Study

Project Manager leading the evaluation of Cr6 treatment options including treatment process selection and plant siting, conceptual design, and cost estimating for two water systems comprised of 26 wells.

Coachella Valley Water District – Source of Supply Study

Evaluated options to a balanced water resource portfolio including groundwater with chromium 6 treatment, use of Colorado River water, and a decentralized approach (POU/POE). The evaluation includes treatment process selection and plant siting, conceptual design, and cost estimating. Stakeholder communications, public outreach, and engagement of an expert panel were also integrated in the project to gain support for the implementation plan of the selected approach.

Santa Ynez River Water Conservation District (SYRWCD) Chromium Treatment and Alternatives Analysis

Project Engineer providing analysis and recommendations on the blending options and treatment systems necessary for compliance with the chromium-6 MCL. Evaluation included development of water quality data database for analysis, identification of feasible treatment technologies, review of operational requirements, development of cost estimates, and preparation of site layouts.

Technical Publications

Chowdhury, Z., Bigley, S., Porter, K.L., Blute, N., Rhoades, J., Westerhoff, P., Bowen, A. (2016) Evaluation of Technologies for Hexavalent Chromium Removal and Development of a Compliance Planning Approach. Water Research Foundation Report.

Eaton, A., Chowdhury, Z., Shaw, J., Roberson, J. A., "The State of the Science of Analytical Methods for oVOCs" Journal AWWA, Vol. 104 Iss. 11, 2012, Page Range E572-E581, 10 Pages.

Shaw, J., Passantino, L., Chowdhury, Z., Hayes, T., Kindred, M., "Using Chlorine Dioxide to Reduce Distribution System THM Formation: Costs, Benefits, and Operational Implications" Proceedings, Annual Conference and Exposition, American Water Works Association (AWWA), Chicago IL, July 23, 2010.

Shaw, J.K., Cotton-Leto, O.A., Chowdhury, Z.K., Arohiald, E., "Planning for Compliance: An Evaluation of Water Quality Conditions that Could Trigger the Need for Treatment Changes," Proceedings, Water Quality Technology Conference (WQTC) and Exposition, American Water Works Association (AWWA), Seattle WA, November 15-19, 2009.

Shaw, J.K., Pepe, L.K., Ela, W., Saez, E., "Damage Control: Managing the Residuals Generated During Arsenic Treatment," Proceedings, 2008 Water Quality Technology Conference and Exposition, American Water Works Association, Cincinnati OH, November 16-20, 2008.

Shaw, J., Fathoridoobadi, S., Zelinski, B., Ela, W., Saez, A., "Stabilization of arsenic-bearing solid residuals in polymeric matrices" Journal of Hazardous Materials, 152:3:1115, April 15, 2008

California Water Company - ELA 53-02 Treatment Evaluation

Examined treatment options for a groundwater with hydrogen sulfide, color, manganese, and ammonia. Project work included a water quality review, bench-scale testing, development of a pilot-scale test plan, and an update of planning level treatment cost estimates.

California American Water - Chromium 6 Treatment Analysis

Examined water quality, land availability, proximity of individual wells, residuals disposal, and capital and O&M costs for chromium 6 treatment options for three California American systems impacted by the proposed California MCL.

Water Research Foundation and Coachella Valley Water District - Hexavalent Chromium Compliance Planning

Performed an evaluation and developed a project report capturing a uniform approach to compliance and implementation planning that considered system alternatives to combine and treat groundwater to comply with the California MCL for chromium 6. The evaluation considered water quality, land availability, proximity of individual wells, residual disposal, and capital and O&M costs.

Experience Prior to Hazen and Sawyer

AWWA and Suffolk County Water Authority Suffolk County Water Authority cVOC Case Study (WITAF #597) / Long Island NY

Worked with industry experts to identify regulatory options for the upcoming cVOC rule. Collected existing treatment technology information and VOC occurrence data for SCWA system (over 190 wells). Estimated capital cost impact with regulatory scenarios. Developed representative GAC breakthrough curves to assess operational cost impacts. Performed additional sampling to validate low level projections of 1,2,3-TCP occurrence.

Water Research Foundation: Survey of Existing VOC Treatment Installations (WRF 4453)

Developed an internet-based survey to collect general engineering information from existing VOC treatment systems. Expanded the survey to include a smart spreadsheet survey for more detailed design and water quality information. Developed a database of compiled VOC treatment effectiveness and design information. Assessment of regulatory impact scenarios, GAC treatment effectiveness, and aeration treatment effectiveness is on-going.



Lynn Grijalva, PE

Vice President

Ms. Grijalva is the founder of our Los Angeles office. Her experience spans surface water, groundwater, wastewater, recycled water, stormwater. The following are her representative projects:

Education

MS, Civil Engineering, University of Nevada Reno, 1979

BS, Civil Engineering, University of Nevada Reno, 1978

Certification/License

Professional Engineer: CA, NV

Areas of Expertise

- Alternative water supplies
- Water and Wastewater Treatment
- Water Recycling
- Stormwater and Natural Systems Management

Experience

- 36 total years
- 4 years with Hazen

Professional Activities

Water Environment Federation-
President 2005

WEF Water Reuse Committee

WERF Board of Directors

Water Reuse Association

American Water Works
Association

American Society of Civil
Engineers

Association of California Water
Agencies

References

Mark Johnson
Coachella Valley Water District
(760) 398-2651

Shivaji Deshmukh and Justin
Pickard

Los Angeles Bureau of Sanitation

Project Manager of Hyperion ATF Pilot Optimization study to update odor control to reduce water consumption while still meeting odor control goals, 2015

Coachella Valley Water District

Principal-in-Charge of the Domestic Water Treatment/Supply Study 2013-2015, and Design and Construction Engineering for a \$198M program of groundwater treatment, pipelines and a regional resin regeneration and brine recycling facility for most cost effective and reliable compliance with Chromium-6 regulations.

West Basin Municipal Water District

Principal-in-Charge of Ocean Water Desalination Water Quality Integration Study, 2013, including design of pilot facilities for stabilizing desalinated water and testing corrosion and disinfection impacts of introducing a new water source into Metropolitan Water District (MWD) regional feeder system and local distribution systems. Principal for habitat valuation for ocean intake mitigation, and ozone system commissioning.

Southern Nevada Regional Water Recycling Study, Las Vegas NV

Prior to joining Hazen, project manager of a multi-stakeholder plan that resulted in public policy to prioritize water recycling by return flow to the drinking water source, expanded groundwater recharge and continued use of scalping plants for urban irrigation, 2008.

Santa Ynez River Water District

Co-Project Manager for planning and comparing system-wide water treatment and supply options for compliance with hexavalent chromium regulation, 2014. Principal in Charge for pilot testing groundwater treatment for regulatory approval and cost minimization and for Treatment Plant Design, 2015.

Lynn Griljalva, PE

West Basin Municipal Water
District
(310) 217-2411

Cyrous Ghilani
LA Bureau of Sanitation
323-342-1580
cyrous.gilani@lacity.org

City of Los Angeles, CA Bureau of Engineering

Principal-in-Charge of the technical review and update of Slipline Grouting and Odor Control Specifications for medium to large pipeline repair and rehabilitation, as a subconsultant, 2012-13.

Orange County Sanitation District

Principal-In-Charge, quality assurance and technical specifications for Oxygen System Demolition at Plant 2, 2013-14.

Confidential Client, Southern California

Project Manager for wastewater treatment process modeling and analysis for nutrient removal, 2014.

City of Lomita, CA

Project manager of Cypress Well full-scale testing, flavor profile analyses and design of adjustments that achieved consumer satisfaction with hardness, TDS, taste and odor. Used oxidation, aeration, stabilization, sequestering and blending with MWD supplies to meet water quality goals. Led tours for elected officials and conducted public meetings, 2012-13.

Glendale Water and Power and California Water Service Company, Livermore, CA

Principal-in-Charge, for a total of \$1M of pilot and demonstration testing over a three year period for removal of hexavalent chromium. Participated in CA Dept of Public Health and outreach activities, 2012-2015.

Membrane Plant Rehabilitation Santa Monica, CA

Principal in Charge for investigation of process fouling, guidance of maintenance and operating procedures and design of chemical feed modifications.

Molton Niguel Water District

Principal in Charge as a specialty subconsultant providing odor investigation and remediation recommendations.

Norwalk Municipal Water System, Norwalk, CA

Principal-in-Charge for Taste and Odor and Distribution Pipe Corrosion Investigations, consulting on flow patterns, water age, source water quality, treatment and MWD blending options to resolve colored water, corrosion, taste and odor complaints 2012-2014.

REDACTED



Nicole Keon Blute, PhD, PE

Vice President

Dr. Blute is a Vice President and Operations Manager of the Los Angeles, California office. She specializes in water treatment and has led 14 years of chromium treatment testing and implementation, forming the basis for Best Available Technologies selected by the State of California. Dr. Blute develops and leads a wide variety of water projects, notably including facility planning, groundwater treatment projects, and distribution system water quality projects.

Education

PhD Environmental Engineering,
MIT, 2002

BS Environmental Science,
University of Rochester, 1996

BA Chemistry, University of
Rochester, 1996

Certification/License

Professional Engineer, OA

Areas of Expertise

- Groundwater treatment
- Source water integration
- Distribution system water quality
- Corrosion control and stabilization
- Bench, pilot, and demonstration testing

Experience

- 19 total years
- 3 years with Hazen

Professional Activities

Trustee, American Water Works
Association

Society of Women Engineers

Chair, AWWA Inorganic
Contaminants Committee

Vice Chair, CA NV AWWA
Recycled Water Committee

Technical Publications

Blute, N., Wu, Y., Imamura, G.,
Song, Y., Porter, K., Cron, C., Fong,
L., Froelich, D., Abueg, R., Henrie,
T., Ramesh, S., and Vallejo, F.
(2015) Assessment of Ion

Domestic Source of Supply/Treatment Evaluation, Palm Desert, CA
Project Manager and leader of the technology evaluation of possible Colorado River water treatment and groundwater treatment for a combined 165 mgd of treatment to achieve compliance with the new chromium-6 regulation and add water supply diversification. Treatment options and cost of technology combinations were thoroughly analyzed working with Coachella Valley Water District staff to identify and address all of their concerns. Led a series of workshops with CVWD management, department directors, and staff to systematically evaluate alternatives and build consensus on the treatment combination. The estimated cost of treatment is \$200 million and includes several dozen groundwater treatment plants, and a central resin regeneration facility.

Coachella Valley Water District Cr6 Water Treatment Facilities Project Palm Desert, CA

Technical Director and Permitting Lead for the design of 31 treatment facilities to remove chromium from groundwater at Coachella Valley Water District, representing a \$22M design fee. Project includes alternate delivery (Construction Manager at Risk). Treatment facilities include weak base anion exchange, strong base anion exchange, and a central resin regeneration facility for strong base resins.

Indio Water Authority, Indio, CA

Technical lead on a compliance study and fast-track design and implementation of three treatment systems for chromium removal, involving ion exchange. Provided analysis of source water quality characterization

Exchange, Adsorptive Media and RCF for Cr(VI) Removal. Water Research Foundation Report.

Blute, N., Wu, Y., Cron, C., Fong, L., Froelich, D., and Abueg, R. (2016) Microfiltration in the RCF Process for Hexavalent Chromium Removal from Drinking Water. Water Research Foundation Report.

Chowdhury, Z., Bigley, S., Porter, K.L., Blute, N., Rhoades, J., Westerhoff, P., Bowen, A. (2015) Evaluation of Technologies for Hexavalent Chromium Removal and Development of a Compliance Planning Approach. Water Research Foundation Report.

Najm, I., Brown, N.P., Seo, E., Gallagher, B., Gramith, K., Blute, N., Wu, Y., Yoo, M., Liang, S., Maseiko, S., Kader, S., and Lowry, J. (2014) Impact of Water Quality on Hexavalent Chromium Removal Efficiency and Cost. Water Research Foundation Report.

Blute, N.K., Wu, Y., Porter, K., Imamura, G., McGuire, M.J., Zurn, S., Abueg, R., Froelich, D., and Fong, D. (2013) Hexavalent Chromium Removal Project Report.

Blute, N., Wu, X., Cron, C., Abueg, R., Froelich, D., and Fong, L. 2014. Hexavalent Chromium Treatment Implementation in Glendale, Calif. Journal of the American Water Works Association, v.106 (3), p. E160-175.

Seidel, C.J., Najm, I.N., Blute, N.K., Corwin, G.J., and Wu, X. 2013. National and California Treatment Costs to Comply with Potential Hexavalent Chromium MCLs. Journal of the American Water Works Association, v.105 (6), p. E320-336.

Blute, N.K., Ghosh, A., and Lytle, D. 2012. Assessing Ammonia Treatment Options. Opflow, May issue.

Russell, G.G., Blute, N.K., Via, S., Wu, X., and Chowdhury, Z. 2012. Nationwide Assessment of Nitrosamine Occurrence and Trends. Journal of the American Water Works Association, v. 104 (3), p. 67-68.

and evaluation of groundwater and surface water treatment options. Choices were narrowed in working with Indio to meet the timeline and budget for short term as well as long term compliance.

Demonstration and Pilot Studies of Hexavalent Chromium Treatment Technologies, Glendale, CA

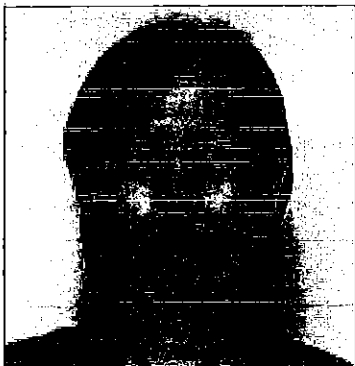
Technical lead and project manager for \$10M of demonstration and pilot studies of hexavalent chromium removal technologies in the City of Glendale, CA. Responsibilities included investigating the operational requirements and treatment efficacy of two technologies (ion exchange and reduction/coagulation/filtration) at demonstration scale (425 and 100 gpm). Facilitates communications between the many involved parties, including regulatory agencies (CDPH, CDWR, and USEPA), additional funding agencies (USBR, Water Research Foundation), other utilities (MWDSC, LADWP, Burbank, and San Fernando), and engineering firms representing potentially responsible parties of the Superfund site and regulatory interests). The results of the over twelve years of study comprise the state-of-the-art knowledge about hexavalent chromium removal technologies.

Groundwater System Improvement Study, Los Angeles, CA

While with Malcolm Pirnie, the subconsultant Project Manager for an \$11M project to identify treatment technologies and process trains for wellfields in the San Fernando Valley for LADWP. Contaminants of concern included VOCs, hexavalent chromium, perchlorate, nitrate, 1,4-dioxane, SOCs, and NDMA. Her project team was tasked with conceptual treatment process selection and facility layouts. The team assessed all conventional and emerging technologies for contaminants of concern and assembled possible treatment trains to maximize operability and flexibility of treatment for large facilities. This work will form the basis for the Groundwater Remediation Complex (GWRC) that LADWP will construct and operate to provide up to 123,000 acre feet of water per year.

Chromium Treatment and Alternatives Analysis, Santa Ynez, CA

Project Manager providing analysis and recommendations on the treatment systems necessary for compliance with the chromium-6 MCL for the Santa Ynez River Water Conservation District #1. Evaluation included analysis of water quality data, development of costs and treatment requirements (e.g., chemical and waste volumes, operational attention of systems), preparation of site layouts, and ranking of treatment options using Decision Criterion Plus. Pilot testing was conducted of weak base anion exchange, and third-party evaluation of two other treatment technologies tested.



Ying Wu, DEnv, PE

Senior Project Engineer

Dr. Wu has over 9 years of experience specializing in water treatment process testing and implementation. Following are her representative assignments.

Education

DEnv Doctor of Environmental Science and Engineering, UCLA, 2008

MS Environmental Resource and Management, Brandenburg University of Technology, 2004

BS Environmental Resource and Management, Brandenburg University of Technology, 2002

Certification/License

Professional Engineer: CA

Areas of Expertise

- Bench-, pilot- and demonstration-scale testing of water quality and treatment
- Hexavalent chromium removal
- Corrosion evaluation and control
- Disinfection and disinfection byproducts evaluation
- Nitrification control in chloraminated distribution system
- Perchlorate removal using ion exchange
- Microfiltration

Experience

- 9 total years
- 3 years with Hazen

Demonstration and Pilot Studies of Hexavalent Chromium Treatment Technologies, Glendale, CA

Dr. Wu was the project engineer and a key technical expert for the demonstration and pilot studies of hexavalent chromium removal from groundwater in the City of Glendale, CA since 2009. She has hands-on experience with hexavalent chromium treatment using weak base anion exchange (WBA) and reduction, coagulation and filtration (RCF). Dr. Wu developed AACE Class 5 treatment costs for multiple flow rates for WBA and RCF. The Glendale research program provided key information of treatment and costs for the new maximum contaminant level (MCL) of hexavalent chromium in California.

Domestic Source of Supply/Treatment Evaluation, Coachella Valley Water District, CA

Dr. Wu is a project engineer and task leader of the technology evaluation of groundwater treatment for over one hundred wells. Contaminants of concern include hexavalent chromium, arsenic, nitrate and others.

Hexavalent Chromium Treatment Residuals Management, Association of California Water Agencies

Dr. Wu was deputy project manager for investigating hexavalent chromium treatment residuals disposal options. She thoroughly evaluated the WBA and RCF residuals characteristics, quantities and disposal options, developed residual treatment costs for several potential MCLs.

Chromium Treatment and Alternatives Analysis, Santa Ynez River Water Conservation District (SYRWCD), CA

Project Engineer providing analysis and recommendations on the blending options and treatment systems necessary for compliance with the chromium-6 MCL. Evaluation included identification of feasible treatment technologies, review of operational requirements, development of cost estimates, and preparation of site layouts.

Professional Activities

American Water Works Association

AWWA Disinfection Committee Member

American Society of Civil Engineers

Selected Publications

Blute, Nicole K., Pedersen, David W., Wu, Xueying and Means, Edwards, 2012. Demonstration Testing of Nitrification Control Using Chlorite in Irvine, California. Manuscript accepted to Journal of the American Water Works Association.

Blute, Nicole K., Wu, Xueying, and Alspach, Brent. 2012. Guidelines for Chromium(VI) Treatment Testing. Report #4418. Water Research Foundation, Denver, CO.

Russell, Caroline G., Blute, Nicole K., Via, Steve, Wu, Xueying, and Chowdhury, Zaid. 2012. Nationwide Assessment of Nitrosamine Occurrence and Trends. Journal of the American.

Wu, X-Y, Blute, N.K., Fong, L. and Blaoet, D., 2012. "Hexavalent Chromium Treatment Residuals Disposal and Costs", Conference and Exposition of the American Water Works Association (AWWA), Dallas, TX.

Blute, N.K., Russell, C.E., Wu, X-Y, "Nitrosamine Occurrence in the U.S. - Analysis and Interpretation of UCMR2 Data," presented at the Water Quality Technology Conference (WQTC), American Water Works Association (AWWA), Savannah GA, November 14-18, 2010.

McGuire, S.E., Wu, X-Y, Blute, N.K., Askenhalzer, D., Qin, G., "Prevention of Nitrification Using Chlorite Ion: Results of a Demonstration Project in Glendale, Calif.," Journal of the American Water Works Association, Vol. 101, No. 10, pp. 47-59, October 2009.

Assessment of Ion Exchange and Adsorptive Media for Hexavalent Chromium Removal, Water Research Foundation (WRF 4423)

Dr. Wu led the pilot testing of weak base, strong base anion exchange resins and adsorptive media at Glendale and Livermore. She evaluated two weak base and three strong base resins for the two different water qualities and a new adsorptive media for Glendale's water quality.

Groundwater System Improvement Study, Los Angeles, CA: While with Malcolm Pirnie, Dr. Wu was a core team member (as a subconsultant) for conceptual level treatment technology selection for wellfields in the San Fernando Valley for LADWP. Contaminants of concern included VOCs, hexavalent chromium, perchlorate, nitrate, 1, 4-dioxane, SOCs, and NDMA.

Main San Gabriel Basin Watermaster, Asuza, CA

Field leader on a project to investigate the impacts of phosphate-based antiscalant on perchlorate selective IX resins. Dr. Wu independently set up and monitored the pilot study. Dr. Wu coordinated the efforts between vendors and testing labs, and prepared the final report. The study suggested no significant impacts from the antiscalants on the IX resins.

Groundwater System Improvement Study, Los Angeles, CA

While with Malcolm Pirnie, Dr. Wu was a core team member (as a subconsultant) for conceptual level treatment technology selection for wellfields in the San Fernando Valley for LADWP. Contaminants of concern included VOCs, hexavalent chromium, perchlorate, nitrate, 1, 4-dioxane, SOCs, and NDMA.

Treatment Selection and Cost Development for A New Groundwater Well, Los Angeles, CA

Dr. Wu led treatment evaluation for two wells with challenging reducing water qualities in the California Water Service Company East Los Angeles District. Technology evaluation included aeration, pH adjustment, coagulation, filtration and breakpoint chlorination.

Groundwater Treatment Improvement Evaluation, Hawthorne, CA

Dr. Wu and colleagues evaluated treatment process of the Hawthorne Plant and tested several coagulants for coagulation optimization and disinfection byproducts control.



Education

B.S. Civil Engineering, California State University at Long Beach 2007

Certification/License

Professional Engineer, California Civil Engineer, License No. 077660

Areas of Expertise

- Domestic, recycled, and wastewater distribution and transmission system master planning
- Development, calibration, and analysis of computer hydraulic models for pressurized and gravity systems
- Design and engineering construction support of pipelines, storage reservoirs, pump stations, and valving stations

Experience

- 7 total years
- 1 year with Hazen

Professional Activities

American Society of Civil Engineers

Sam V. Valdez, PE

Principal Engineer

Mr. Valdez has professional experience serving public clients and private developers. His experience includes developing and analyzing hydraulic models and master planning for domestic water distribution and wastewater collection systems, utility coordination with various agencies, preparation of design calculations, plans, specifications, cost estimates, and engineering construction support for domestic water, recycled water, and sanitary sewer conveyance facilities in Southern California.

Water and Sewer Master Plan, Del Mar, California

City of Del Mar. Project Engineer. Prepared the Water and Sewer Master Plan for the City of Del Mar in San Diego County, California. Performed a hydraulic model update and calibration, detailed hydraulic evaluation and condition assessment of the City's water and sewer systems, and identified specific capital improvement projects and operations and maintenance programs to be implemented during the next 20 years to improve the City's systems. The project also included a reservoir storage analysis, lift station wet well capacity analysis, development of a pipeline replacement program, identified causes of past reservoir overflows, and proposed creative solutions to issues including water age and provision of water service during supply outages.

Graton Resort and Casino, Rohnert Park, California

Station Casinos. Engineer. Responsible for hydraulic modeling. Provided site engineering design and surveying services for the new Graton Resort and Casino for the Federated Indians of Graton Rancheria. The team provided complete civil engineering design, surveying, and construction administration services for the casino and hotel. The project comprises approximately 70-acres with surface parking for over 4,000 vehicles, a multi-story parking garage, a low-rise 314,000 square foot casino building, and a future multi-story hotel. The project civil design included state-of-the-art water quality components, including a series of bioretention and detention facilities to treat all the stormwater runoff

on the site. The project also includes two bridge crossings of an existing channel, a sewer lift station and associated force main, and compliance with the recently adopted Cal Green code.

Hydraulic Water Model Peer Review

Mesa Water District. Responsible for detailed peer review of master planning hydraulic model prepared by others including data, functional, and organizational review, review of model development and calibration supporting documents prepared by others, comparison of model operational controls with the Production Systems Operations Plan (PSOP), and preparation of a summary memorandum of corrections, recommendations, and suggestions.

Domestic Water Master Plan, Laguna Beach, California

Laguna Beach County Water District. Engineer. Responsible for hydraulic modeling. Provided engineering services to Laguna Beach Water District (District) for development of a domestic water master plan. Services included evaluation of the District's existing computer system network and make recommendations for upgrading the existing system; implementation of InfoWater software, including model and calibration of the existing water system and hydraulic and water quality analysis; training of District personnel and follow-on support services for two years; evaluation of water supply sources and recommendations for the most cost-effective means of meeting the District's ultimate demands; and preparation of a list of recommended capital improvements projects, including preliminary cost estimates for facilities to be constructed; and preparation of a financial plan for identified improvement facilities that will include developer fees, potential financial sources, and possible water rate impacts.

Mesa Water Reliability Facility (MWRF) and Groundwater Well Source Tracing Modeling

Mesa Water District. Responsible for hydraulic modeling, which included source tracing analyses for the MWRF and groundwater wells under numerous weekday/weekend, seasonal, groundwater well, and reservoir lead/lag operational configurations. This study allowed Mesa Water District to identify which sources of water were contributing to a given area in the system under a certain operational configuration, which can also be used as a tool to identify primary water source contributors to areas with nitrification issues.



Carlton Nguyen

Assistant Engineer

Education

BS Environmental Engineering,
University of California, Riverside,
2015

Certification/License

Engineer-In-Training: California,
#162540

Areas of Expertise

- Project Management
- Water Quality Compliance and Planning
- Groundwater Treatment
- Bench, Pilot, and Demonstration Testing

Experience

- 2 total years
- 1 year with Hazen

Professional Activities

Water Systems Design
Treatment of Hexavalent Chromium

Mr. Nguyen is an Assistant Engineer out of the Palm Desert Office. He has led and supported teams of project managers, engineers, and scientists to develop water quality and supply programs that serve public agencies and their stakeholders. His interests and experience spans surface water, groundwater, wastewater, and the various treatment methods of each. Mr. Nguyen graduated in March 2015 from the University of California, Riverside with a B.S. in Environmental Engineering with a concentration in water pollution control. At the University of California, Riverside, Mr. Nguyen's senior design project was to derive a treatment process using UV light to reduced Cr(VI) to Cr(III). He began his career as a scientific assistant, providing data compilation and analysis, then moved deeper into the engineering field, first being introduced to the government side; then moving to the private contracting side where he leaned about estimation, scheduling and general project management.

Indio Water Authority, Indio, CA

Project Engineer for Borden Excavating, assisting with estimates regarding underground utilities to general construction for three separate Hexavalent Chromium treatment sites throughout the city. Acted as a line of contact between the owners, the engineering consulting firm, and any subcontractors in regards to office managerial requests such as RFP's, RFP's, change orders, etc. Participated in weekly meetings and maintained aggressive 6 month schedule.

Carlton Nguyen

Elsinore Valley Municipal Water District, Lake Elsinore, CA
Engineering Intern, responsible for pre-qualifying interested contractors, preparing presentations, giving input on current capital projects, compiling project specifications, and general assistance in the engineering department.

Fee Estimate City of Banning

September 29, 2015

Task	VP	SA	SPE	PE	AE	Des	Total Hours	Fee Labor
QA/QC								\$3,300
QA/QC Reviews	12						12	\$3,300
TASK 1 - PROJECT MANAGEMENT, COMMUNICATION, AND MEETINGS								\$17,860
Project Management			40				40	\$6,600
Meetings								
Kick-Off	2		2		2		6	\$1,120
Progress Meetings	8		16		16		40	\$6,760
Decision Workshop	4		8		8		20	\$3,380
TASK 2 - DATA COLLECTION AND PRE-STUDY ANALYSIS								\$10,696
Task 2.1 - Site Visits, Data Collection, and Review			8		40		48	\$6,120
Task 2.2 - Capacity Analysis	1		8		24		33	\$4,475
TASK 3 - EVALUATE TREATMENT ALTERNATIVES								\$38,145
Task 3.1 - Site and Size Treatment Facilities			8		20		28	\$3,720
Task 3.2 - Well Modifications	1		8		16		25	\$3,515
Task 3.3 - Operations Summary	2		12		40		54	\$7,330
Task 3.4 - Infrastructure Site Analysis	2		4		16		22	\$3,130
Task 3.5 - Cost Analysis	2		12	24	40		78	\$10,690
Task 3.6 - Technology Selection and Facilities Schematic			8		32	40	80	\$9,760
TASK 4 - PREPARE ORG TREATMENT AND COMPLIANCE STUDY								\$16,980
Task 4.1 - Draft Memorandum	4		20		40		64	\$9,200
Task 4.2 - Final Memorandum	2		16		30		48	\$6,670
TOTALS	40	0	170	24	324	40	586	\$86,890

ALLOWANCE FOR OTHER OPTIONAL SERVICES (not included in grand total)

Hydraulic modeling of SSWD system	4	16	20	120			160	\$24,960
Permitting with DDW	8		24				32	\$6,160
Funding Application Assistance	8		40				48	\$6,800

Hazen and Sawyer Labor Classifications

VP - VP / Project Principal / QA/QC

A - Associate / Project / Technical Manager

SPE - Senior Principal Engineer

PE - Engineer / Cost Estimator

AE - Assistant Engineer

Des - CAD Designer/Modeler

Tech - Technician

Subconsultant	Total \$
None	\$ -
Total	\$ -

Expenses	Unit	Unit Cost	Total \$
Mileage	1,150	\$0.676	\$870
Other Travel	\$1,200	Is	\$1,200
Other Direct Costs Subtotal			\$1,870
Grand Total (Labor + Sub + ODCs)			\$87,760

**Hourly Fee Schedule for Fiscal Year 2015/2016
Chromium-6 Treatment and Compliance Study
City of Banning
September 29, 2015**

Hazen

ROLE	BILLING RATE
Vice President	275
Senior Associate	235
Associate	200
Sr. Principal Engineer	165
Principal Engineer	140
Engineer	130
Assistant Engineer	120
Technician	115
Administrator	90

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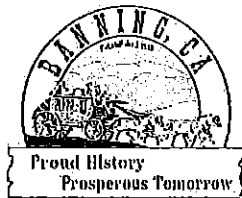
Attachments

Attachment 'A': Resumes

Attachment 'B': Project Schedule

CONTACT INFORMATION

Prepared for:



City of Banning
99 E. Ramsey Street
Banning, CA 92220
Contact: Holly Stuart
Phone: (951) 922-3130
e-mail: hstuart@ci.banning.ca.us

Prepared by:



TKE Engineering, Inc.
2305 Chicago Avenue
Riverside, CA 92507
Contact: Michael Thornton
Phone: (951) 680-0440
e-mail: mthornton@tkeengineering.com



T K E E N G I N E E R I N G , I N C .

September 29, 2015

Holly Stuart
Public Works Analyst
CITY OF BANNING
99 E. Ramsey Street
Banning, CA 92220

City Clerk's Office
MCL

Subject: Request for Proposals for Chromium-6 Treatment and Compliance Study

Dear Ms. Stuart,

Thank you for the opportunity to present this material outlining TKE Engineering's (TKE) qualifications to provide professional engineering services to the City of Banning (City). Enclosed herein are our qualifications to provide engineering services for Chromium-6 Treatment and Compliance Study. TKE is a full service, multi-disciplinary consulting firm located at 2305 Chicago Avenue, Riverside, CA 92507. TKE was established in 2000 and over the past fifteen years has developed into one of Southern California's leading consulting engineering firms. TKE is highly qualified to perform the services required for successfully completing the City's Chromium-6 Treatment and Compliance Study along with laying out a strategy for the City to meet the recently laid out requirements of Senate Bill 385 (SB 385).

Why should the City choose TKE to provide professional engineering services? Please consider the following:

- 1. Our Team-**The City will benefit greatly by continuing the vision, leadership, and dedication to community exhibited by TKE's project team. Our experience in the San Geronio Pass region, numerous accomplishments and management skills will help maintain continuity in the planning and management of the City's water resources. In particular, Michael Thornton, our Principal in Charge, has a vast amount of experience with all aspects of water treatment and regulatory compliance, including the long-term management of the limited water resources within Southern California, and more specifically the San Geronio Pass. In addition, Christopher Delter, our project manager, also has a vast amount of experience with water resources and Chromium-6 (Cr-6) compliance issues. His excellent project management skills will provide a great benefit to the City. In particular, his experience with Chromium-6 treatment technologies and California's compliance regulations, will put the City on a path towards successful compliance with the State of California's new Cr-6 maximum contaminant level (MCL). More detailed information about each member of our project team is presented in our proposal. After reading our proposal, we are sure you will be pleased with the amount of specialized experience our team brings to this project.
- 2. Our Experience and Qualifications-**TKE is a full-service, multi-disciplinary firm that has a comprehensive knowledge of the challenges associated Cr-6 treatment and regulatory compliance with the State of California and does not require the services of a subconsultant. As described in our proposal, TKE has a vast amount of water treatment and water resources experience, having been involved in water treatment and resource management throughout the San Geronio Pass region. TKE's broad range of successful services includes turnkey projects tailored to meeting the clients immediate and long term requirements. The City will benefit from our broad range of experience through our intimate understanding of the challenges that lie ahead for the City and its need to comply with SB 385.
- 3. Our Commitment-**TKE is committed to assisting the City in achieving its goal of complying with the State's new Cr-6 MCL and requirements of SB 385. TKE will remain committed to the City's desire of providing affordable, reliable, and high-quality drinking water to its customers. We will do this by working closely with the City's project management. To begin to demonstrate this commitment, TKE researched the City's project scope and the compliance requirements of SB 385. Challenges include, but are not limited to, familiarizing with the City's system and demands, analyzing water quality, investigating alternative means of compliance, determining the most cost effective best available treatment technology and/or strategy, identifying available treatment technology, identifying any required system modification, and identifying available funding sources that the City may have or qualify for. TKE has completed similar plans requiring such analysis and is highly qualified to provide all of the services that the City will require for successful project completion.

Prior to beginning any services, TKE's Project Manager will meet to discuss plan requirements and scheduling needs. Our Project Manager will be in contact with City staff to ensure all needs are met within the allotted

schedule and are within their allocated budgets. It is this personal touch and contact that define our "local service" approach. We consider ourselves community builders and take ownership of projects assigned to TKE, ensuring that our personnel will be allocated on an as needed basis in order to complete all projects on schedule.

Our broad array of services and in-house team provides the City a trusted consultant to turn to in any challenge, no matter how simple or complex. We pride ourselves in the management and completion of special, atypical projects and thrive on challenging budgets and deadlines. It is this commitment to service and diverse array of offerings that makes us unique and drives our long-standing relationship with our client base and it is these qualities and that make us "the right fit" for the City of Banning.

4. Our Value-TKE's management team and staff are fundamentally committed to creating value in each task that we perform. As such, we have created a professional culture wherein each member of our staff constantly strives for increased efficiency, ultimately allowing us to provide highly professional services at competitive rates. This culture of constant value creation and increased efficiencies ensures that the services contracted to and provided by TKE will always mean good stewardship of public resources.

Thank you for your consideration. TKE very much appreciates the opportunity to submit a comprehensive proposal to provide engineering services the Chromium-6 Treatment and Compliance Study. If you have any questions, please call me at (951) 680-0440 or e-mail me at mthornton@tkeengineering.com.

Sincerely,



Michael P. Thornton, P.E., P.L.S., M.S.
President
TKE Engineering, Inc.

Section B: Qualifications Of Firm/Project Team

FIRM

TKE Engineering, Inc. (TKE) is a full-service, local, multi-disciplinary firm with a wide range of experience in public improvement projects. TKE employs a team of 20 engineers, surveyors, inspectors, drafters, and administration support staff. More than 90% of TKE's core staff has been with us for ten years or more, creating an extremely cohesive team. TKE is a corporation founded in 2000, and in the last fifteen years it has developed into one of Southern California's premier full service consulting engineering firms. TKE was established with the goal of providing exceptional service for municipal projects in order to benefit our community. As a result of the focus of a firm on this mission, TKE has earned a reputation for thoroughness, rapid turnaround, cost efficiency and overall quality of work. We are a highly motivated, dynamic firm with the goal of being your preferred consultant.

Our broad range of successful services includes water resources engineering, among other services. The City of Banning (City) will benefit from our broad range of experience with water treatment, municipal water system, water system planning and the management of groundwater. This experience will support our ability successfully deliver project this project to the City and will prove invaluable to the San Geronio Pass region in its long term management of groundwater supplies.

The following is a listing of relative services provided by TKE:

Civil Engineering

TKE's Civil Engineering projects have included:

- Water Resource Studies
- Treatment and Compliance Studies
- Urban Water Management Plans
- Master Plans
- Water Supply Assessments
- Rate Studies
- Infrastructure Master Planning/Capital Improvement Program (CIPs) development and management
- Hydrologic Studies/Hydraulic Design
- Potable and Recycled Water Infrastructure Funding, Planning, Design, Bidding and Construction
- Sanitary Sewer Infrastructure Funding, Planning, Design, Bidding and Construction
- Sewer and Water System Hydraulic Analysis
- Storm Water Pollution Prevention Plans (SWPPP)
- Sediment and Erosion Control Facilities
- Hydromodification Studies/Water Quality Management Plans (WQMPs)

PROJECT TEAM

TKE has assembled an elite team of professionals to provide the City with professional engineering services. Our team

has a wealth of experience working together and has developed an excellent working partnership that will be an invaluable resource to the City. This knowledge improves overall project management, reduces the opportunity for costly mistakes and delays, and allows our staff to provide very effective and efficient service to you.

Mr. Thornton, TKE's President, is in charge of all TKE projects. He has over 28 years of experience in engineering planning, design, land surveying and construction management for public works projects. He has worked on a variety of public works engineering projects including sewer improvements, water improvements, street improvements, park improvements, bike trail improvements, drainage improvements, and reclaimed water system improvements projects. Mr. Thornton has been responsible for managing including funding administration, planning, evaluating, and designing these projects and has provided construction engineering and surveying services for many of these same projects. Mr. Thornton has been providing San Geronio Pass and Inland Empire agencies with consulting services for more than a decade. He can be reached by phone at (951) 680-0440 or by email at mthornton@tkeengineering.com.

Mr. Deiter is an Associate Engineer at TKE and has 6 years of experience in the design of water and wastewater facilities, including pipelines, water treatment systems and water storage reservoirs. He has been responsible for water master plan hydraulic analyses, preliminary and final design drawings, specifications; engineer's cost estimates, and construction support activities. His experience includes transportation improvements, and land development projects. He has worked on projects for Eastern Municipal Water District, Crestline-Lake Arrowhead Water Agency, Jurupa Community Services District, Western Municipal Water District, Santa Ana Watershed Project Authority, Crestline Village Water District, Riverside County EDA, and others. Additionally Mr. Deiter has 5 years of past experience in the construction of various municipal water projects throughout the Southern California area. He can be reached by phone at (951) 680-0440 or by email at cdeiter@tkeengineering.com.

Resumes have been provided in Attachment 'A.'

QUALIFICATIONS AND EXPERIENCE

TKE has extensive experience with an excellent reputation in both the development of regulatory compliance documents, resource planning documents and master planning documents.

Section B: Qualifications Of Firm/Project Team

Throughout our history of fifteen years serving Southern California, we have provided engineering design and management support services for areas throughout the Inland Empire and San Geronio Pass. We have successfully completed complex and challenging planning documents for a variety of municipal agencies who have continued to request that we partner with them in delivering much needed planning tools to their communities.

Our treatment, pipeline, reservoir, and booster station improvement projects have included the full services of civil engineering design, including coordination with geotechnical engineers and other consultants necessary for the completion of challenging projects, agency permitting, utility coordination and preparation of preliminary design reports.

We are sure that the successful results of our past performance in the delivery of planning documents and project, along with our firm's proven ability to utilize our experience for a complete and well-engineered approach to resource management, will provide a valuable resource to the City. Project experience has been provided on the following pages.

Section C: References

Please see the Table below for a small, but representative list of agencies who have and continue to request TKE Engineering (TKE) to assist them in delivering valuable projects to their communities. We respectfully request that you verify our qualifications with the listed references.

AGENCY	CONTACT NAME	PHONE NUMBER	DATES SERVICES PROVIDED (FROM/ THROUGH)
MISSION SPRINGS WATER DISTRICT	MR. ARDEN WALLUM, GENERAL MANAGER	(760) 329-5169	2001-PRESENT
MAYWOOD MUTUAL WATER COMPANY NO. 1	SERGIO PALOS, GENERAL MANAGER	(760) 560-2439	2011-PRESENT
CITY OF COACHELLA	MR. JONATHAN HOY, CITY ENGINEER	(760) 398-5744	2010-PRESENT
CITY OF EL MONTE	MR. CESAR ROLDAN, SENIOR ENGINEER	(626) 580-2057	2008-PRESENT
CITY OF CALIMESA	MR. BOB FRENCH, PUBLIC WORKS DIRECTOR	(909) 795-9801	2012-PRESENT
CITY OF FONTANA PUBLIC WORKS DEPARTMENT	MR. CHUCK HAYS, DIRECTOR OF PUBLIC WORKS	(909) 350-6530	2000-PRESENT
SAN BERNARDINO MUNICIPAL WATER DEPARTMENT	MR. MIGUEL GUERRERO, PRINCIPAL ENGINEER	(951) 684-7580	2003-PRESENT
RUBIDOUX COMMUNITY SERVICES DISTRICT	MR. STEVE APPEL, ASSISTANT GENERAL MANAGER	(951) 684-7580	2000-PRESENT
EAST VALLEY WATER DISTRICT	MR. ELISEO OCHOA, PROJECT MANAGER	(909) 888-8986	2012-PRESENT

Treatment and Compliance Study Peer Review

Coachella Water Authority, City of Coachella, CA

Client Contact
Mr. Jonathan D. Hoy
City of Coachella
(760)398-3502
jhoy@coachella.org

Project Cost
N/A

Completion Date
August 2015

Project Team
Michael P. Thornton, P.E., L.S.
Christopher G. Deiter, P.E.

Description: TKE represented Coachella Water Authority (CWA) in reviewing the treatment and compliance study prepared for the City by another consultant. TKE was brought on by the City to review the draft study and provide comments.

Services: Services include review of draft report, analysis of report recommendations, attendance and participation in study presentation to City; providing comments to the City based upon finding.

Section C: References

Chromium-6 Treatment and Compliance Study

Mission Springs Water District,

Client Contact
Mr. Arden Wallum
Mission Springs Water District
(760) 329-5169
awallum@mswd.org

Project Cost
N/A

Completion Date
In Progress

Project Team
Michael P. Thornton, P.E., L.S.
Chris Delter, P.E.

Description: TKE is providing services to MSWD for the completion of a treatment and compliance study along with assisting the District in their compliance measures to meet SB 385 requirements. Responsible for analyzing various compliance alternatives, best available treatment technologies, hydraulic calculations, cost analysis, and report creation

Services: Meetings and coordination, site tours, data collection and analysis, evaluation of compliance opportunities, source of supply investigation, system operation evaluation, treatment alternatives analysis, cost analysis, state notifications, grant and loan funding applications, and preparation of final report, board meeting presentations.



0.5 MG Reservoir and Manganese Treatment Plant

Huntington Park, CA

Client Contact
Mr. Sergio Palos
Maywood Mutual Water
Company No. 1
323.791.1043

Project Cost
\$2.5 Million (Estimated)

Completion Date
In Construction

Project Team
Michael P. Thornton, P.E., L.S.
Terry Renner, P.E., Q.S.D.
Chris Delter, P.E.
Ron Musser, L.S.

Description: The 0.5 MG Reservoir and Manganese Treatment Plant is located in the City of Huntington Park at the corporate yard of Maywood Mutual Water Company No. 1. The project consists of the demolition and reconstruction of a 35-foot wide by 70-foot tall steel reservoir and the installation of a 1,500 gpm manganese filtration plant. The project includes site improvements and 45-foot deep caissons for structural foundation supports.

Services: Services include records research, conventional topographic surveying, permitting, coordination with agencies, preliminary design, cost estimating, preparation of construction plans and specifications, bidding services, grant management, construction administration, construction inspection, construction staking, and as-built verification.

Section C: References

2013 Water Master Plan Update

City of Coachella, CA

Client Contact

Mr. Jonathan D. Hoy
City of Coachella
(760)398-3502
jhoy@coachella.org

Project Cost

N/A

Completion Date

In Progress

Project Team

Michael P. Thornton, P.E., L.S.
Christopher G. Deiter, P.E.
Steven W. Ledbetter, P.E.

Description: The City of Coachella retained TKE to prepare an update to the City's previous 2007 Water Master Plan (WMP). The WMP evaluated the City's existing water system and planned the facilities to meet increase future water demands. The evaluation included future planned development projects and the City's most current General Plan Update report. The update report provided land use and population projections. The WMP forecasted out to the year 2035 and a capital improvement plan (CIP) was developed out of the findings and recommendations in the WMP. The project included significant coordination with the City and the future La Entrada Development team.

Services: Services include research, coordination with agencies, hydraulic calculations, model preparation, preliminary engineering, cost estimating, exhibit preparation, CIP development and presentation to City Management Staff.

Section D: Strategy and Implementation Plan

SCOPE OF WORK

TASK 1: PROJECT MANAGEMENT, COMMUNICATION AND MEETINGS

A. Project Manager:

The Project Manager, Christopher G. Deiter, P.E., will be the point of contact for this project will coordinate all communications with the City.

B. Project Kick-off Meeting and Review:

TKE will conduct a kick-off meeting with the City in order to discuss project parameters, site-specific conditions, project goals, and the City's latest developments in regards Cr-6. TKE will provide the City with a list of requested documents at this time for data collection.

C. Project Schedule, Status report and Monthly Progress Meetings

TKE will provide support as necessary to coordinate and attend project meetings, community impact meetings, field meetings, and City Council. Deliverables will include meeting minutes, progress reports, and project schedules, as necessary. This task includes time for coordination with the main water purveyors of the region related to their 2015 updates. TKE estimates eight (8) meetings will be included.

TASK 2: DATA COLLECTION AND PRE-STUDY ANALYSIS

A. Site Survey and Site Visit:

It is anticipated that TKE staff will tour the City's sites and facilities along with City staff in order to review site layouts, system operations and identify possible locations for treatment facilities.

B. Water Demand Analysis:

TKE will request that the City provide data to be used for analysis in order to complete the compliance study. An initial list of requested data will be provided at the kick-off meeting. This data may include but is not limited to, system master planning documents, active well operations, production capacities, production records, supply sources, and water quality testing results.

C. Water Quality Testing:

We anticipate that the City should have recent water quality testing from their most recent rounds of Title 22 water quality monitoring. This data may be adequate for the project, however if additional data is necessary TKE will coordinate with the City.

TASK 3: EVALUATE TREATMENT ALTERNATIVES

A. Treatment Analysis:

a. Blending Evaluation:

We will examine sources of supply that could result in compliance. These sources may include: imported water, blending options, treatment and new well construction. Through this investigation we will also be able to identify which, if any, infrastructure improvements are needed. We will also evaluate the ideal method for the City to implement the most effective solution throughout their system while taking into account the City's existing operations and future needs. These methods will include: clustered wells, centralized treatment, and individual wellhead treatment. Our investigation will take into account ease of operation for staff and existing hydraulic constraints. It is anticipated that treatment will be the most cost effective solution; however, we will analyze each option and determine which operational structure would be optimal for the City.

b. Well Head Treatment Evaluation:

Seeing as wellhead treatment is the anticipated rote that will be most cost effective below are the technologies that will be considered.

i. Ion Exchange (SBA and WBA)

Both SBA and WBA technologies have approval from the State Water Resources Control Board (SWRCB) and are named as some of the Best Available Technologies (BATs). Both SBA and WBA resins have a high affinity to Cr-6 along with other constituents of concern.

With WBA the resin has a high capacity for removal and uses a single pass absorption approach. Pre and post treatment is necessary through pH adjustment in order to obtain the optimal conditions for Cr-6 removal. Although WBA is a simple treatment approach there are issues to be aware of. Depending on other constituents in

Section D: Strategy and Implementation Plan

the water being treated disposal of spend WBA resins can prove costly and challenging. Careful analysis needs to be taken when considering WBA in order to weigh the simplistic nature of the system with the potential high chemical usages and resin replacement costs.

SBA technology has a great deal of past experience with removing wastes such as nitrate, perchlorate and arsenic, but is now showing great promise with Cr-6 removal. SBA requires a periodic resin regeneration which yields a brine waste. This brine waste can require treatment to precipitate the Cr prior to disposal. Additionally, SBA becomes more attractive if there is local access to the SAWPA Brine Line. Often SBA becomes less attractive the higher the sulfate levels are in the water however, there are a few emerging stand out SBA companies that have developed processes that are far more efficient with their waste product making them rather competitive even when the sulfate levels are high.

ii. Reduction Coagulation Filtration

RCF is also deemed a BAT by the SWRCB and is typically used as traditional treatment method where one has to break head in order to provide treatment. While this has been the case in the past there are emerging methods of RCF treatment in which the reductant (usually ferrous sulfate or ferrous chloride) is used to convert Cr-6 to Cr-3 within pressurized vessels similar to the WBA and SBA processes, which offers hydraulic and process simplification advantages not seen in the past. With this type of technology there is also flexibility in disposal of the waste product depending on the availability and constraints of a sewer system.

iii. Evaluate Reverse Osmosis

While RO is a viable method of removing Cr-6 it may prove to be cost prohibitive. The need for pre-filtration, high energy costs and large quantity of brine waste compared to the volume of treated water are all issues to be aware of when considering the use of RO technology.

iv. Evaluate Biological Reactor

Biological treatment typically is not the most optimal solution for Cr-6. Fluidized bed reactor facilities and membrane bioreactors have seen past success controlling nitrate and perchlorate and are just now showing some promise with Cr-6. Operations of these systems are similar to RCF in that a reducing agent is often time needed. This may prove to be an optimal due to the absence of brine disposal and if other constituents also need to be removed.

v. Evaluate Brine Treatment Alternative & Hybrid Treatment Systems

Waste and brine disposal are usually the most challenging issues when designing a treatment facility. Exploring availability of brine line discharger locations could cut down on disposal and trucking costs.

Alternatively there are on-site brine regeneration systems which use a concentrated brine solution to restore depleted resins and as a result net an extremely low volume of waste brine. This lower volume of brine can be processed onsite in order to precipitate the contaminants. By doing this, the amount of waste that must be hauled and disposed of is greatly reduced.

c. Well Modifications

Performing dynamic well profiling of the City's wells in order to determine if the Cr-6 contamination is isolated at certain elevations can provide valuable data. This data may show that some wells in the short time can have certain well screen sections blanked off in order to comply with the new MCL. This may be a viable cost effect strategy on the wells that are right at or near the MCL compared to installing treatment. This analysis can be completed once well profiles and reports are available.

Section D: Strategy and Implementation Plan

B. System Operation Evaluation:

TKE has great experience in evaluating a well site for potential treatment. Using well pump tests along with treatment system data such as: system headloss, flow capacity, waste volumes, disposal rates, chemical usages, maintenance requirements and equipment lifecycles we can evaluate the which system will have the most cost effective solution for the City. The results of this analysis will be clearly illustrated in the final report.

C. Infrastructure Site Analysis:

The recommended solutions for the City may require other infrastructure upgrades on and off of the City's well sites. TKE will analyze the need for these additional facilities and provided recommended sizing and locations of the proposed facilities in order to meet current and future City demands.

D. Cost Analysis:

A cost analysis for each of the technologies will be prepared based on capital and O&M costs. These costs will also include any recommended system upgrades needed to implement each technology.

E. Facilities Schematic:

We will prepare conceptual layouts of all recommended system upgrades and treatment facilities. These layouts will be prepared in AutoCAD and will be in 11"x17" (or 24"x36" if City prefers) format.

TASK 4: PREPARE CHROMIUM-6 TREATMENT AND COMPLIANCE STUDY

TKE will prepare a complete report summarizing the information from the above analysis and investigation, which will include our findings and recommendations. We will provide a Draft report for the City's review and comment. Upon completion of City comments TKE will meet with City Staff at their offices to review the comments. Thereafter, TKE will incorporate the City comments and submit a final report.

PROJECT SCHEDULE

A project schedule has been included in Attachment 'B'.

Section E: Proposed Quality Assurance Program

QUALITY ASSURANCE/QUALITY CONTROL

TKE takes pride in our reputation for thoroughness, rapid turnaround, cost efficiency and overall quality of work, and believes that a high level of quality is needed on all PS&E packages. High quality design yields the following tangible results:

- Ease of oversight
- Smoother processing
- Healthy number of bidders
- Consistent bids
- Minimized construction support cost
- Absence of design-related change orders
- Reduced claims and dispute resolution costs

TKE believes that the most successful quality assurance program is one that is applied inherently throughout the entire design process and all design activities. This program requires not only formal procedures for checking, but encourages the conscientious effort of experienced people to always "create quality" in every task performed throughout the design process.

This program has become a natural element in all aspects of TKE's design and management activities, and will guide our work on this contract:

- Staff training and development
- Assignment of experienced staff
- Continuity of staffing
- Project-specific work plan
- Schedule compliance
- Comprehensive field review and compilation of site data
- Established design procedures
- Established detailing standards
- Established checking procedures, including independent in-house QA/QC review
- Dual (independent) quantity estimates
- Review by Constructability expert

This Quality Assurance/Quality Control program is in place to ensure that PS&E documents prepared by TKE continue to exceed the standards of our clients and that we will deliver the project on schedule and within budget.

PROJECT APPROACH

Successful plan delivery is our goal. Our definition of successful plan delivery is:

- Plan completion that meets all needs of City and provides a path moving forward
- Plan completion that meets the requirements of SB 385 thus maintaining the City's compliant status as laid out in SB 385.
- Plan completion within budget

- Plan completion on schedule

Our goal is not limited to the development of the study only, but includes the incorporation of value engineering and feasibility review. Through our work with this study the City will not only have a clear path moving forward towards compliance with the Cr-6 MCL, but also towards meeting the requirements laid out in SB 385

With the examination of the compliance alternatives, we will identify the most cost effective project alternative that meets the City's compliance and operational goals.

Our approach to your compliance study, recognizing that both schedule and budget are of primary concern, dictates that study development decisions must be made quickly but carefully. When this is coupled with the various constraints present with any study effort, it is critical that the City choose a consultant with a proven track record of delivering. With a familiar team of senior level planning, design, and construction professionals, TKE is the right choice for this project.

With a study of this nature, our experience tells us that there must be a proactive approach to completing the work. This approach includes early identification of critical water supply elements, experience with common treatment challenges, and adhering regulatory requirements throughout the entire process. In preparing this study, our team spent numerous hours reviewing available records and the RFP to establish key issues so we can be prepared to mobilize on a moment's notice to assist you.

Critical Issues

Identification of Critical Study Elements

Our approach to this critical issue will be to immediately initiate field review, perform very thorough records research, and document all the critical study elements so they can be presented to the State. This will provide a head start on facility improvement planning and funding opportunity exploration in order to ensure proper adherence to SB 385's timeline.

Experience with Common Challenges

Water Code and Legislative Changes

TKE's extensive experience with other compliance study's will provided a vast knowledge of seemingly simple but often overlooked details regarding compliance. TKE is extremely familiar with legislative changes that have passed that have a direct impact on compliance and funding availability. TKE will

Section E: Proposed Quality Assurance Program

ensure the study results in the City remaining compliant with all recent legislative changes. TKE will fully review and respond to each requirement laid out in the scope. Using this plan TKE can assist the City with their dealing the SWRCB and their notifications required by SB 385. One of the main areas not mentioned in the scope, yet required by SB 385 is identifying funding sources. TKE has a great deal of experience is grant and loan funding applications and programs. If the City desires, TKE can provide those additional services as well.

Operations Flexibility

Often times treatment systems are chosen purely on the effectiveness of the technology and its associated costs. TKE will work the City staff to ensure ease of operations is considered as well. This is done to ensure that whichever treatment system we recommend to the City is well received by management and operations.

ATTACHMENT 'A': RESUMES



Mr. Michael Thornton, P.E., L.S., M.S.

Project Role

Principal-in-Charge

Project Manager

Education

MS, Civil Engineering,
California State University,
Long Beach

BS, Civil Engineering,
California State
Polytechnic University,
Pomona

Registration

Registered Civil Engineer,
PE 44226 (CA)

Professional Land
Surveyor, LS 6867 (CA)

Affiliations

Riverside-San Bernardino
Counties Branch,
American Society of Civil
Engineers

American Water Works
Association

California Rural Water
Association

Mr. Thornton, TKE's President, is in charge of all TKE projects. He has over 29 years of experience in engineering planning, design, land surveying and construction management for public works projects. He has worked on a variety of public works engineering projects including street improvements, park improvements, bike trail improvements, drainage improvements, and reclaimed water system improvements projects. Mr. Thornton has been responsible for managing including funding administration, planning, evaluating, and designing these projects and has provided construction engineering and surveying services for many of these same projects.

Related Experience

- *Treatment and Compliance Study Peer Review, Coachella Water Authority* – Mr. Thornton represented Coachella Water Authority (CWA) in reviewing the treatment and compliance study prepared for the City by another consultant. Mr. Thornton was brought on by the City due to review the draft study and provide comments.
- *Mission Creek and Garnet Hill Water Management Plan, Mission Springs Water District* – Mr. Thornton represented Mission Springs Water District (MSWD) at technical coordination meetings during development of the development of the Water Management Plan (WMP). His responsibilities included representing MSWD at the meetings, review of technical memorandums and other project deliverables, review of modeling results, preparation of reports and presentation for incorporation in the final report, review and comments to the final report. In addition, he provided numerous presentations to the MSWD's board of directors during plan development as well as during the plan adoption.
- *Coachella Valley Regional Water Management Group (CVRWMG)* – Mr. Thornton continues to represent Mission Springs Water District (MSWD) at technical coordination meetings. His responsibilities included representing MSWD at the meetings, review of technical memorandums and other project deliverables, assistance with grant funding applications, and presentations to MSWD board of directors. While representing MSWD at these meetings, Mr. Thornton was responsible for review of the Coachella Valley Integrated Regional Water Management Plan update.
- *2010 Urban Water Management Plan Update, City of Coachella, CA* – Mr. Thornton directed staff in preparing the long-term resource planning documents for the City to analyze the adequacy of the City to meet the demand needs, both existing and future, of various customer categories over a 20-year planning period, including normal, single dry, and multiple dry water years, consistent with California Water Code Section 10610 through 10656 and SBX7-7. Reports included system descriptions, demand analysis, system supplies, supply reliability and shortage analysis, demand management measures, and demand reduction analysis (20% by 2020).
- *2010 Urban Water Management Plan Update, City of El Monte, CA* – Mr.

ATTACHMENT 'A': RESUMES

Thornton directed staff in preparing the long-term resource planning documents for the City to analyze the adequacy of the City to meet the demand needs, both existing and future, of various customer categories over a 20-year planning period, including normal, single dry, and multiple dry water years, consistent with California Water Code Section 10610 through 10656 and SBX7-7. Reports included system descriptions, demand analysis, system supplies, supply reliability and shortage analysis, demand management measures, and demand reduction analysis (20% by 2020). The City's reliance on the adjudicated Main San Gabriel Basin proved to be challenging in meeting water supply goals for future growth.

- *2035 General Plan Update Water Supply Assessment, City of Coachella, CA* – The proposed 2035 General Plan Update aids the City in establishing its new identity, an identity that will be realized during the next growth cycle. The 2035 General Plan Update is the community's statement of the community's values and its vision for its future. As part of that vision, a CEQA environmental review is prepared to evaluate impacts related to future growth outlined in the General Plan. Mr. Thornton was the Principal-in-Charge and was responsible for directing staff in preparing a water supply assessment for inclusion as part of the General Plan Update CEQA. In accordance with SB 610, TKE provided an assessment of water supplies available to serve all development up to 2035, including normal, single dry, and multiple dry water years. Services included records research, water supply and demand analysis, report preparation, and community meetings.
- *La Entrada Water Supply Assessment, City of Coachella, CA* – The proposed La Entrada development includes 7,800 dwelling units (mixture of high, medium, low and very low density), mixed-use development with up to 1,520,000 square feet of commercial floor area, schools, parks/recreation, and open space, on 2,200 acres of vacant land within the northeastern sections of the City of Coachella with an estimated water demand of 5,400 acre-feet per year. In accordance with SB 610, Mr. Thornton directed staff in preparing an assessment of water supplies available to serve the development over a 20-year period, including normal, single dry, and multiple dry water years.
- *Vista Del Agua Water Supply Assessment, United Engineering Group, City of Coachella, CA* – The proposed Vista Del Agua development includes 1,640 single family and multi-family residential units on 275 acres of vacant land within the northern sections of the City of Coachella with an estimated water demand of 1,317 acre-feet per year. As project manager, Mr. Thornton directed staff in preparing an assessment of water supplies available to serve the development over a 20-year period, including normal, single dry, and multiple dry water years, while ensuring compliance with SB 610. Services included records research, Project specific water demand analysis, City wide water supply and demand analysis, report preparation, and community meetings.

ATTACHMENT 'A': RESUMES



Mr. Christopher Deiter, P.E.

Project Role
Project Manager

Mr. Deiter is an Associate Engineer at TKE and has 6 years of experience in the design of water and wastewater facilities, water treatment systems, booster and lift stations, pipelines, and water storage reservoirs. He has been responsible for water master plan hydraulic analyses, preliminary and final design drawings, specifications; engineer's cost estimates, and construction support activities. His experience includes transportation improvements, and land development projects. He has worked on projects for Eastern Municipal Water District, Crestline-Lake Arrowhead Water Agency, Jurupa Community Services District, Western Municipal Water District, Santa Ana Watershed Project Authority, Crestline Village Water District, Riverside County EDA, and others. Additionally Mr. Deiter has 5 years of past experience in the construction of various municipal water projects throughout the Southern California area.

Education

BS, Civil Engineering,
California State
Polytechnic University,
Pomona

Registration

Registered Civil Engineer,
PE 80618(CA)

Affiliations

American Society of Civil
Engineers

Inland Counties Water
Association

Related Experience

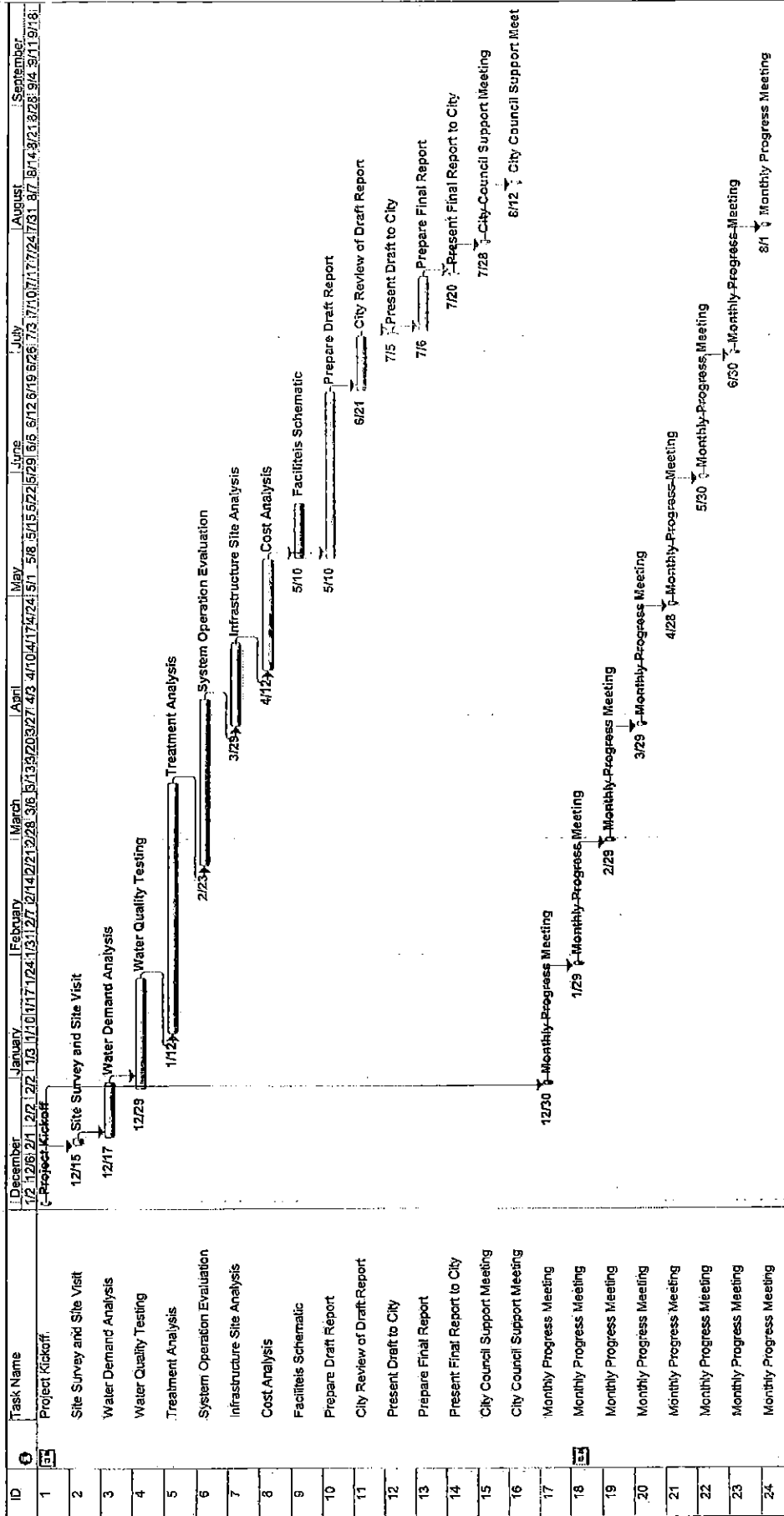
- *Chromium-6 Treatment and Compliance Study*, Mission Springs Water District— This project is currently in progress. Mr. Deiter is serving as Project Manager with MSWD in their completion of a treatment and compliance study along with assisting the District in their compliance measures to meet SB 385 requirements. Responsible for analyzing various compliance alternatives, best available treatment technologies, hydraulic calculations, cost analysis, and report creation.
- *Manganese Treatment Facility and New 0.5 MG Welded Steel Reservoir*, Maywood Mutual Water Co. No. 1, City of Huntington Park, CA – This project was a grant funded project through the California Department of Public Health (CDPH). Mr. Deiter coordinated the design review and approval of the project. He created and maintained the Project Budget and Expenditure Summaries. Responsible for managing and facilitating all permitting with the City of Huntington Park and Southern California Edison. Additionally, he worked on the preparation of plans, specifications, and estimates for the construction for the grant funded project. The project included the installation of two horizontal 1,500 gpm filtration vessels, backwash tank, full SCADA system control, sand separator, backup generator and transformer upgrade. Additionally there was 70-foot tall welded steel reservoir replacement which included the removal of a structurally deficient steel reservoir and construction of the proposed welded steel reservoir. The proposed reservoirs included a ring footing with 45-foot deep 3-foot diameter caissons to combat liquefaction issues. The reservoir removal and replacement is located within fifteen feet of an existing 70-foot tall 2 million gallon steel reservoir that was to be protected during construction.
- *Water Master Plan*, City of Coachella, CA – H2ONET water modeling for master plan purposes. This included development of existing water system to identify possible system deficiencies along with projected growth of the City's water system, which aids in future CIP planning. Steady state modeling, extended period simulations, fire flow testing, system pumping energy cost calculations.
- *Watson Road/Juniper Flats Road Waterline*, Eastern Municipal Water District, Menifee, CA – Project consisted of approximately 6,500 linear feet of 24" and 4,500 linear feet of 18" CML&C steel waterline. Responsible for the drawing production utilizing three dimensional design capabilities and AutoCAD Civil 3D, connection detail design, Piping thickness calculations, phased construction

ATTACHMENT 'A': RESUMES

coordination, and submittal review.

- *Waterline Replacement Project Kenneth Street, Hastings Boulevard, Foxtail Lane and Water Services Replacement within portions of Indian Hills Area, Jurupa Community Services District, City of Jurupa Valley, CA* – Project involved 5,900 linear feet of 8" CML&C steel waterline replacement along with 150 water service replacements. Responsible for the waterline design and plan production utilizing three dimensional design capabilities and AutoCAD Civil 3D, submittal review and approval, and coordination with Inspectors.
- *Beacon Tank Site Improvements, Crestline Village Water District, Crestline, CA* – Project involved the seismic retrofit and related site improvements to the existing Beacon Tank Site including the design and construction management for the project. Completed the construction plans. The work included seismic and structural calculations, all civil design and CAD drawings, and specification preparation. Responsible for the construction management of the project. Duties included all contract management, progress payments, scheduling, submittal review and approval, and coordination with inspectors.
- *March Life Care Campus PRV Station, Easter Municipal Water District, City of Moreno Valley, CA* - Assisted in the plan preparation and CAD drafting for this project. This included appurtenance layout and design, site piping, and mechanical drawings
- *Greatview/Horseshoe Bend Tank Site Improvements, Crestline-Lake Arrowhead Water Agency, Crestline, CA* – The project involved improvements which included, demolition of an existing reservoir, design of a seismically sufficient new reservoir, seismic retrofit of an existing reservoir, site piping, and site grading. Completed the construction plans. This work included seismic and structural calculations, all civil design and CAD drawings, and specification preparation.
- *Mid Agency Tank and Booster, Crestline-Lake Arrowhead Water Agency, Crestline, CA* – Prepared concept plans, and preliminary calculations for the feasibility of a new reservoir and booster station to add additional fire flow and storage within CLAWA's system.
- *Longview Water Storage Reservoir, Easter Municipal Water District, Menifee, CA* – Assisted in the plan preparation and CAD drafting for this project. Included appurtenance layout and design, site grading, site piping, and mechanical drawings.
- *Sunnyslope 3 MG Reservoir, Sheep Creek Water Company, and Phelan, CA* – This project consisted of a new 3 million gallon water storage reservoir. Assisted in the preparation of the plans and technical specifications.
- *Cedar Glen Tank, San Bernardino County Special Districts, Lake Arrowhead, CA* – Assisted with construction support services on the project.
- *4th Street Park, City of Calimesa* – This project was for a new park for the City of Calimesa which was funded through a grant from the State of California Department of Parks and Recreation. Mr. Deiter was managed all the submittal review and approvals for the construction of the park. Submittals reviewed included: clearing, grubbing, grading, and installation of landscaping, irrigation, lighting, small architectural facility, playground equipment, exercise equipment, water features, dog park, hardscape, drainage improvements, fences, walls, monument sign and street improvements in accordance with the plans and specifications.

**City of Banning
Chromium-6 Treatment and Compliance Study
Project Schedule**



Project: Schedule Date: Tue 9/29/15	Task	Summary	Rolled Up Task	Rolled Up Progress	Group By Summary
	Critical Task	Rolled Up Task	Split	Deadline	
	Progress	Rolled Up Critical Task	External Tasks		
	Milestone	Rolled Up Milestone	Project Summary		

City of Banning
Chromium-6 Treatment and Compliance Study
Consulting Engineering Fee

Task No.	Task	Project Manager Hours	Project Engineer Hours	Assistant Engineer Hours	Clerical Hours	Total Hours	Total \$
Design Scope of Services							
1	Project Management, Communication and Meetings	20	\$ 2,600	60	\$ 6,600	0	\$ -
2	Data Collection and Pre-Study Analysis	8	\$ 1,040	32	\$ 3,520	20	\$ 2,000
3	Evaluate Treatment Alternatives	32	\$ 4,160	80	\$ 8,800	100	\$ 10,000
3.1	Treatment Analysis	24	\$ 3,120	40	\$ 4,400	60	\$ 6,000
3.2	System Operation Evaluation	16	\$ 2,080	32	\$ 3,520	60	\$ 6,000
3.3	Infrastructure Site Analysis	24	\$ 3,120	40	\$ 4,400	60	\$ 6,000
3.4	Cost Analysis	\$	\$ 1,040	24	\$ 2,640	80	\$ 8,000
3.5	Facilities Schematic	40	\$ 5,200	120	\$ 13,200	120	\$ 12,000
4	Prepare Chromium-6 Treatment and Compliance Study	172	\$ 22,360	428	\$ 47,080	500	\$ 30,000
Subtotal:							
							\$ 17,420
							\$ 136,860
							Reimbursables (@3%): \$ 4,106
							Design Total: \$ 140,966

Rates:

Project Manager	\$ 130 /HR
Project Engineer	\$ 110 /HR
Assistant Engineer	\$ 100 /HR
Clerical	\$ 65 /HR

Notes:

(1.) Reimbursables include Cost for Print, Copies, Mileage, Etc.

TKE Engineering, Inc.

TKE ENGINEERING, INC. RATE SCHEDULE 2015-2016

	<u>HOURLY RATE</u>
Principal in Charge	\$150.00
Project Manager/Construction Manager/Licensed Surveyor	\$130.00
Senior Engineer/Project Engineer (PE)/Senior Plan Checker	\$110.00
Associate Engineer	\$105.00
Assistant Engineer/Plan Checker .. /Designer	\$100.00
AutoCAD Technician	\$ 90.00
Engineering Technician	\$ 60.00
Clerical	\$ 65.00
Forensic Engineering	\$150.00
Expert Witness Testimony	\$250.00

SURVEYING SERVICES

2-Man Survey Crew.	\$210.00
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CONSTRUCTION SERVICES

Senior Construction Inspector	\$ 90.00
Construction Inspector	\$ 85.00

REIMBURSABLE COSTS

In-house Reproduction	Cost
Printing and Materials	Cost + 10%
Express Mail/Courier/Next Day Service	Cost + 10%
Special Subconsultant Services ..	Cost + 10%

Revised July 2015

PROPOSAL

TO

CITY OF BANNING

FOR

**CHROMIUM-6 TREATMENT AND
COMPLIANCE STUDY**

SEPTEMBER 29, 2015

**ENGINEERING RESOURCES OF SOUTHERN CALIFORNIA, INC.
1820 COMMERCENTER CIRCLE
SAN BERNARDINO CA 92408
PH: 909/890-1255
FX: 909/890-0995**

*1820
City Clerk's Office*

SECTION A

COMPANY INFORMATION AND PROJECT UNDERSTANDING

Engineering Resources of Southern California, Inc. (ERSC), provides professional engineering services to clients, largely municipal and special districts throughout Orange, Riverside, and San Bernardino Counties from four offices located in Hemet, San Bernardino, Indio, and Irvine. Since its establishment in 1996, *ERSC's* focus has been to provide expert engineering services with professionals available to provide a broad range of engineering, planning, and construction services to the public sector, special districts, and utilities. Current staffing among the four offices totals approximately 30.

PROJECT UNDERSTANDING

With the adoption of the Chromium-6 Maximum Contaminant Level (MCL) limit of 10 parts per billion or ppb, numerous water sources in the area have been jeopardized. This has happened to the City with seven wells adversely impacted and an eighth near the MCL at 9.5 ppb, seriously affecting the City's ability to provide water meeting the State Water Resources Control Board Division of Drinking Water's (SWRCB DDW) MCL. Thus, to maintain capacity and reliability in its water delivery system, the City in response is seeking an evaluation and preparation of a plan to develop a means to continue use of the wells. We note that this is needed to qualify for the requirements of the recently adopted Senate Bill 385 for which an agency needs to submit a plan to show its method of compliance not extending beyond the year 2020. For purposes of this proposal, it is assumed that the Compliance Study sought by the City, is in reality, the plan required/specified in Senate Bill 385.

RELATED PROJECTS - ERSC

ERSC staff has been responsible for completion of three projects directly related to the City's compliance study. Details for these assignments are as follows:

1. Completed for the Alpine Water Users Association in Twin Peaks have been preparation a Blending Plan for Well No.12 and Treatment Plant Operation Plan for Well Nos. 1 and 11. Constituent of concern for these wells was uranium (U). For each, an evaluation was made and a document prepared and submitted to SWRCB DDW for review and approval, resulting in permit amendments. Our experience with the DDW has been that the blending constituent goal should be a maximum of 80% of the appropriate MCL for the offending constituent.

Method of meeting DDW's MCL for Well No. 1 involved wellhead ion exchange treatment. A report was then prepared for operation of the equipment including onsite regeneration with pick-up and disposal of regenerant offsite.

For Well No. 1, wellhead treatment by ion exchange was also the selected procedure for the report prepared for DDW. In this instance, the ion exchange media will be operated to a prescribed loading amount but not to exceed treated water concentration U of 80% of the MCL and also hazardous limitations and then the media removed and replaced. The need for this alternative developed as the local wastewater agency opted not to accept regenerant waste.

2. Completed for the Arrowbear Park County Water District in Arrowbear Lake, CA, in recent years has been preparation of bid and construction documents for the procurement, installation, and start-up of a uranium removal water treatment plant. Project also involved preparation of documentation and report to the SWRCB DDW. This effort was preceded in previous years by conduct of a pilot study leading to preparation of similar documents for the District's first uranium treatment plant, one of the first for municipal supplies in the State, it

is believed. For both plants, onsite regeneration is conducted with discharge to the District's sewer.

3. Currently underway, is preparation of a Blending Plan and Basis of Design Report (BODR) for the Phelan-Piñon Hills Community Services District (CSD) concerning seven (coincidentally) high chromium wells. Both treatment and blending were considered. However, with the availability of low chromium wells in sufficient proximity, selected method is to develop a plan for blending. Blending Plan, then, will incorporate methods to accomplish the blending facilities required and monitoring necessary to assure that the blended waters are not greater than 80% of the 10 ppb MCL. Second assignment for the CSD will be the preparation of a BODR, describing in detail the sizing, operation, and cost of the various features. Preliminary estimate for the work is in the range of \$14,000,000.
4. Completed recently for Twentynine Palms Water District was preparation of a Draft Blending Plan involving the District's Well Nos. 6, 9, 12, and new Well 7B. Intent was to blend the anticipated low chromium and low fluoride content of Well 7B and 6 with the higher chromium and fluoride content of Well Nos. 9 and 12. The Blending Plan was prepared and submitted to the DDW. Meanwhile, construction of Well 7B was undertaken. Unfortunately however, well yield was insufficient to substantiate completion.

We are also consulting on an as-needed basis with the District concerning specification and procurement of treatment technology for their Well 11 for both chromium and arsenic production. This is anticipated to also require a plan to be submitted to DDW.

RELATED PROJECT EXPERIENCE - THOMAS HARDER & COMPANY

Among the many wells and well field assignments completed by Mr. Harder are several depth-specific well testing designs, that is, dynamic well profiling. These were completed for the Helendale Community Services District, Western Municipal Water District in Murrieta, and the City of Ontario. Details are contained at **Appendix B.**

RELATED PROJECT EXPERIENCE - TRUSSELL TECHNOLOGIES, INC.

Of direct related experience is the firm's work for the Puente Valley Operable Unit in the San Gabriel Valley which included treatment options for VOC's, nitrate, and hexavalent chromium emanating from an extremely impaired groundwater source. Considered for the chromium removal were weak and strong base anion ion exchange, reduction-coagulation-filtration, and reduction-coagulation-microfiltration. Details are contained at **Appendix C.**

SECTION B

PROJECT TEAM AND QUALIFICATIONS

Key personnel of *ERSC's* proposed project team are indicated and displayed on the Project Organization Chart on the following page. Principal-in-Charge for *ERSC's* project team will be *Mr. Ronald Worthington, P.E.*, Vice President, and therefore responsible for corporate commitment of the firm and staffing for the project. Mr. Worthington has over 40 years experience, the last 19 with *ERSC*, with virtually all related to water supply and wastewater management. Assignments have included planning, design, and construction management services related to preparation of Water Master Plans, water and wastewater treatment, wells, booster pumping stations, pipelines, and reservoirs. His responsibility for the City's project will entail monitoring of progress vs. schedule, assistance in derivation and/or review of prospective alternative methods for use of the well discharge waters and cost estimates, and quality assurance/quality control review of documents prior to submittal to the City. Extent of his involvement with the project is estimated to be approximately 6 to 10% of total hours by *ERSC* personnel.

Assigned Project Manager for the City's project will be *Mr. John G. Egan, P.E.*, affiliated with *ERSC* since 2003, who will be the primary individual responsible for the effort being conducted by *ERSC*. He, in coordination with Mr. Worthington, will develop alternative methods for continued use of the City's seven wells. Evaluation and alternatives will, of course, include blending, individual wellhead treatment and/or central or regional treatment. Mr. Egan will initiate and maintain coordination with the City's assigned Project Manager and with the Division of Drinking Water's representatives in the San Diego office to assure development of project(s) that will meet acceptance criteria for use. Mr. Egan will prepare report documents and oversee and direct preparation of related documents including schematic plans, theoretical blending result, calculations, and cost estimates.

Mr. Egan will be responsible for preparation for and attendance at all meetings with the City, preparation of meeting agenda, meeting minutes, and maintenance of project schedule. Extent of Mr. Egan's involvement in the project is estimated to be 50-60% of the total hours required by *ERSC* personnel.

Resumes for Messrs. Worthington and Egan accompany at **Appendix A**.

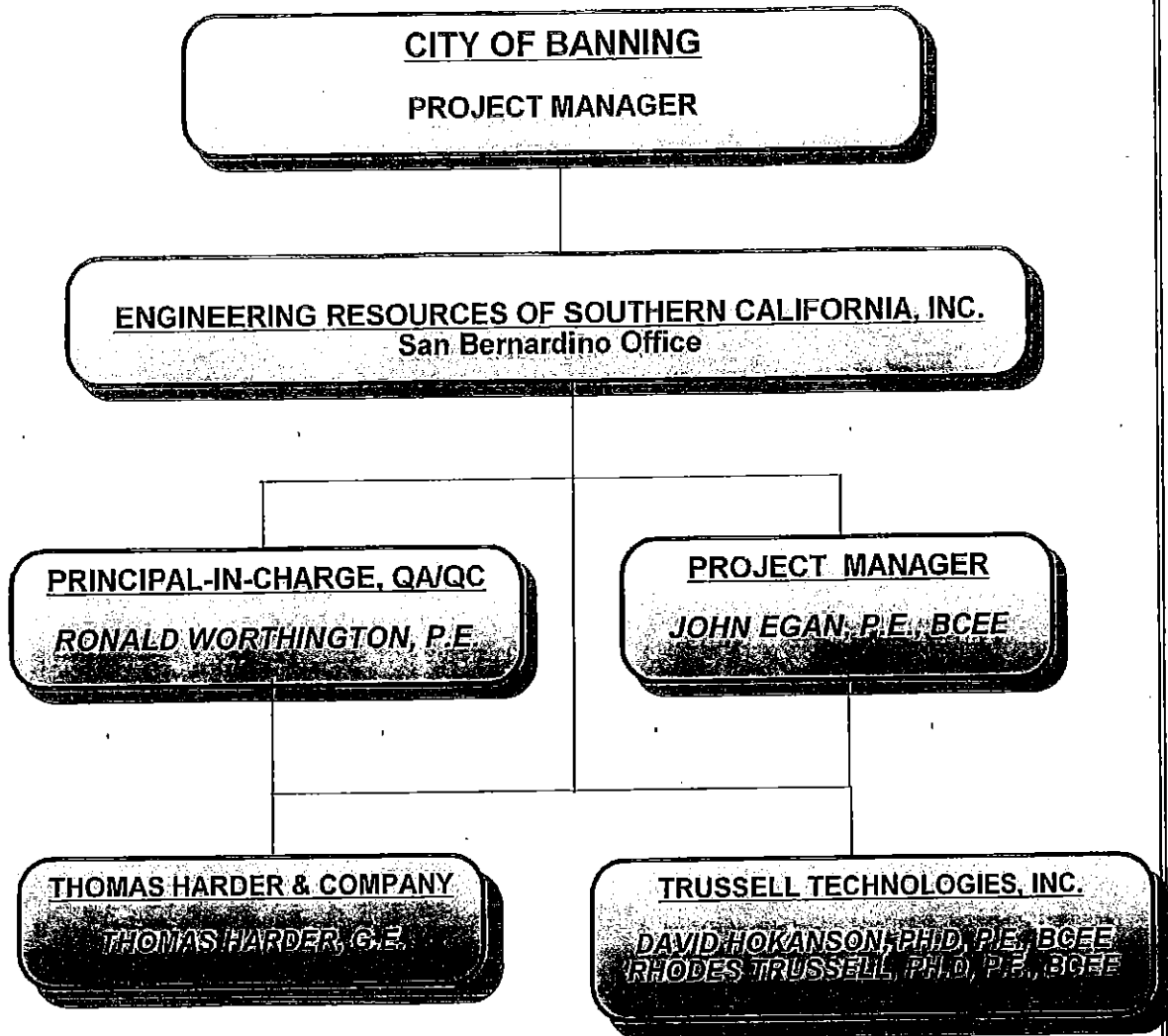
These key personnel will be supported and supplemented by other *ERSC* staff, including a design engineer, senior designer, other technical staff, and administrative staff.

Two subconsultants are proposed for inclusion in *ERSC's* project team. To assist to provide input concerning the analysis of the potential for performing dynamic well profiling or zone testing, Mr. Thomas Harder, G.E. of the firm **Thomas Harder & Company, Groundwater Consulting** of Anaheim will be retained. Highly experienced in groundwater development and use, Mr. Harder provides an excellent member and valuable expertise to the team for the City's project. Groundwater studies, use, and extraction consultation is the company's specialty, and for this reason was selected to be a member of the team. *ERSC* and Mr. Harder have worked as co-consultants on a number of occasions for West Valley Water District and Big Bear Area Regional Water Agency and others concerning well construction and design. Mr. Harder's resume, specifically related to wells and well field design, accompanies at **Appendix B**.

Second subconsultant, the firm of **Trussell Technologies, Inc.**, has been selected to review and evaluate water chemistry and advise concerning the various treatment techniques and technologies that are available and could be utilized. Principal Engineer II, Dr. David Hokanson, Ph.D., P.E., BCEE, will be the firm's primary resource provided to *ERSC's* team. He is an expert on physical and chemical processes applied to water treatment with over 15 years experience, with specific applications to hexavalent chromium treatment. Dr. Rhodes Trussell, Ph.D., P.E., BCEE, will be of consultation to Dr. Hokanson and *ERSC* regarding treatment options and water chemistry evaluation and to review and advise on any complex water quality problem. Company background, project experience, and resumes for Drs. Hokanson and Trussell accompany at **Appendix C**.

Organization chart for *ERSC's* proposed team is on the following page.

**PROJECT TEAM ORGANIZATION CHART
FOR
CHROMIUM-6 TREATMENT AND COMPLIANCE STUDY
CITY OF BANNING**



SECTION C

REFERENCES

References related to the work cited in Section A are the following:

Alpine Water Users Association	Gary Adams, General Manager	909/337-2845
Arrowbear Park County Water District	Mike Scullin, General Manager (Retired)	909/725-2060
Phelan-Piñon Hills Community Services District	Don Bartz, General Manager George Cardenas, Engineering Manager	760/888-1212
Twentynine Palms Water District	Ray Kolisz, General Manager	760/367-7546
Big Bear Regional Wastewater Agency	Steve Schindler, General Manager	909/584-4521
Soboba Band of Luiseño Indians	Ken McLaughlin, General Manager	951/663-2619 (C)

SECTION D

STRATEGY AND IMPLEMENTATION PLAN

ERSC's approach to conduct of the Chromium Treatment and Compliance Study will include the following activities:

TASK 1: PROJECT MANAGEMENT, COMMUNICATION, AND MEETINGS

- Verify Project Manager assignment and commitment.
- Schedule and attend kick-off meeting with key members of *ERSC's* project team. Project manager will prepare an agenda of items to be discussed. Intended goal of the meeting is to meet with City staff involved in the project, specifically City's Project Manager, review and verify specific goal and objective of the City, discuss efforts that have been conducted to date and findings, specify well and water quality information and history needed, verify reliability of water production and quality, procure copy of the City's Water Master Plan, and review site specific information obtained from site visits, including available sewer infrastructure.
- Schedule, prepare agenda, and attend monthly project review meetings with City staff; update project schedule using latest version of MS Project; prepare minutes of meeting specifying task or information required and responsibility. Agenda will be prepared a minimum of five working days prior to meeting date and minutes prepared and submitted within five working days after the meeting.
- Project Manager will maintain communication with the City's assigned contact and Project Manager via telephone, memo, email, and interim or draft submittals.

TASK 2: DATA COLLECTION AND PRE-STUDY ANALYSIS

- Conduct a visit to all well sites to ascertain feasibility for onsite wellhead treatment. Consult with City staff concerning prospective central or regional treatment sites, that is, seek City information concerning City and/or private undeveloped property that might be suitable for treatment site. Selected well sites would also be considered for treatment of multiple wells.
- Meet with City operational staff concerning well characteristics, use and reliability, and history of pumping extractions.
- Review City's Water Master Plan to determine importance of each well per history of use and projected demands; obtain and review City's pipeline network, and reservoir inventory related to the high chromium content wells.
- Contact City's Wastewater Treatment Manager to determine if regenerant or filter waste can be discharged to City's sewers.
- Coordinate with the City concerning additional water quality testing that may be necessary as to location, site, number, and constituents, testing required. Subconsultant, Trussell Technologies, would have significant input for this task to help define testing desired. In addition, it will be very important or indeed critical to adequately test waters discharged from all the wells and evaluate to determine if there is uniformity in the well waters and if there is evidence of constituents in quantities sufficient to interfere with any of the prospective treatment, particularly ion exchange.

TASK 3: EVALUATE TREATMENT ALTERNATIVES

a. Treatment Analyses

Several options are prospects for consideration to mitigate the high chromium content of the City's seven wells. As set forth in the City's request, these are blending, wellhead treatment, well modifications, and an additional alternative, that of central or regional treatment for several wells. Our efforts, will therefore, consider and evaluate all of these possibilities.

Blending offers several alternatives. Discharge from high CR+6 content well(s) can be blended with lower content wells. Treated water, and therefore of low CR+6 content can be blended with untreated. And a portion of well discharge treated, can be blended with the untreated portion for an individual well to reduce treatment capacity requirement.

Wellhead treatment will also be evaluated for each site and for the variety of treatment technologies available for removal of hexavalent chromium. Also of consideration will be other constituents in the well water such as nitrates and sulfates, which may interfere with treatment as well as other co-occurring constituents of concern, whatever they may be. Treatment technologies or processes to be considered will include ion exchange both strong base anion and weak base anion, reduction-coagulation-filtration (conventional and microfiltration), reverse osmosis, biological reactor (fixed bed, fluidized bed, membrane), and possibly brine treatment for backwash options. The following descriptions, prepared by Dr. Hokanson, summarize the current status of the various treatment technologies used.

Ion Exchange (WBA and SBA)

Much work in recent years including various American Water Works Research Foundation (AwwaRF, now WRF, or Water Research Foundation) projects. Recent work has shown SBA to be more promising than previously thought with higher bed volumes to breakthrough. The removal of hexavalent chromium is similar to removal of any other ion like nitrate from an SBA resin. It should be noted the presence of nitrate and sulfate will have a negative effect on process performance. It does also turn your plant into a hazardous waste treatment facility and require removal of the hexavalent chromium from the brine using Reduction Coagulation Filtration, for example, if sewer discharge is not an option. The WBA resin works by a different mechanism where the hexavalent chromium reacts with the sites on the surface of the resin. WBA is the most operator friendly of the options, but it does require pH 6 or below to be effective, requiring a substantial amount of acid addition. WBA brine may contain uranium and require disposal at a special facility out of state. Both WBA and SBA are promising technologies that are finding widespread use in California that should be considered in the evaluation.

Reduction-Coagulation-Filtration (conventional and microfiltration)

Through work originating in Glendale, RCF has been shown to have great promise for hexavalent chromium removal. The RCF conventional process has shown the capability to take hexavalent chromium to about 5 µg/L. The RCF microfiltration process has shown the capability to take hexavalent chromium to levels on the order of 1-2 µg/L. RCF is typically the most operator intensive of all the hexavalent chromium removal processes, with the possible exception of biological treatment. For very low treatment targets, perhaps for an extremely impaired source, the RCF may prove the only choice. Otherwise it is a choice among several to remove hexavalent chromium.

Reverse Osmosis

As would be expected, reverse osmosis is extremely effective at removal of hexavalent chromium. However, it is an energy intensive process that will be costly. There will also be brine generated that contains hexavalent chromium at concentrated levels that may require further treatment prior to disposal if sewer discharge is not possible.

Biological Reactor (fixed bed, fluidized bed, membrane)

Fixed bed, fluidized bed, and membrane biofilm reactor (MBfR) technology are all promising methods for removing hexavalent chromium in California. The first testing of the upflow, fluidized bed, anarebobic bioreactor was at Aerojet in California, for the removal of perchlorate. Project team member Rhodes Trussell

was on the expert panel that oversaw that project. More recently the fluidized bed bioreactor and the fixed bed bioreactor have been tested for perchlorate removal from drinking water in California at Rialto. Work at a remediation site in Las Vegas has shown the effectiveness in the upflow fluidized bed reactor in the removal of hexavalent chromium. Testing of the same process at the City of Davis at the pilot scale has also demonstrated promise for the technology in hexavalent chromium removal. The MBfR technology has been demonstrated effective at the Cucamonga Valley Water District. The mechanisms for removal of oxyions is very similar for each of these biological processes and the chemistry will be considered during the project.

Brine Treatment Alternative and Hybrid Systems (biological, catalytic, and electrochemical brine treatment)

As discussed above, brine generation and treatment is a critical factor related to treatment processes for hexavalent chromium. The chemistry of biological, catalytic, and electrochemical brine treatment applied as brine treatment alternatives and hybrid systems will be considered in the evaluation of well head treatment.

For each treatment technology, team would then evaluate pre-treatment and post-treatment, constituent removal effectiveness, and residuals management. In general, all of the treatment technologies necessarily result in a waste for which additional treatment for disposal may be required, with the exception of ion exchange for which, as an alternative operating method, can be operated to near capacity of the resin and the resin exchanged as we described for two projects managed by *ERSC*.

Final option relates to that of prospective well modifications. Intent and practice is to locate and blank off sections of the well subsurface aquifer contributing to high levels of chromium. To determine specific areas, the City is proposing to conduct dynamic well profiling, a technique involving insertion of an impeller and sampler in the well with the existing pump operating. This technique allows detection of zones or areas of inflow from the aquifer and procurement of water samples from that zone. Areas found to contribute water with undesirable constituents can be sealed by inserting blank casing. Consideration needs to be given to effect on well capacity, however.

As part of our effort, then, this potential will be analyzed to determine advantages and disadvantages of the technique. This evaluation would be made by the Thomas Harder & Company, Groundwater Consulting, and a member of *ERSC's* team. Efforts would involve the following, per his proposal:

- Phone correspondence and coordination with *ERSC* to obtain well completion details and supporting data, reports and information for the City's wells (assume eight wells as shown on the City's map of wells of interest).
- Review of technical information and studies regarding Dynamic Flow Profiling for use in characterizing the vertical distribution of water quality constituents in wells.
- Preparation of a Technical Memorandum that summarizes findings and recommendations with respect to the technical review. The recommendations will include alternative evaluation methods, if appropriate.
- Attendance at one meeting in the Banning area.

b. System Operation and Analysis

Research will be conducted of the various feasible treatment options concerning operational aspects such as head-loss, capacity waste disposal, frequency of filter cleansing, or regeneration of media or ion exchange. Also considered and reviewed will be chemical uses, energy costs, and projected equipment life. Waste disposal will involved and require coordination with the City's Wastewater Operations Manager.

c. Infrastructure Site Analysis

Evaluation will be made of site availability and feasibility for wellhead treatment on each well site. Research will also be conducted concerning the possibility for central or multi-well treatment on a site, pipeline routes, right-of-way requirements, and waste disposal.

d. Cost Analysis

Preliminary cost estimates will be prepared for treatment equipment, pipelines, well modifications, design costs, and operational costs.

e. Facilities Schematic

Schematics will be prepared for the various feasible treatment alternatives for mitigating the Chromium-6 in the City's wells. This will likely include individual wellhead treatment as well as multi-well or central regional treatment schemes. Considered will be inter-well conveyance facilities and prospective waste disposal outlets.

TASK 4: PREPARE CHROMIUM-6 TREATMENT AND COMPLIANCE STUDY

Final task will be preparation of a report summarizing activities of *ERSC* during conduct of the study. Report content will include at least a summary of the research and findings, summary of all treatment options and methods, and identification of those found most feasible. Report content will also include estimates for construction and design costs as well as operating costs for the feasible alternatives and monitoring and sampling program. Finally, recommendation will be made to the City of feasible cost-effective options.

Treatment options as described previously are expected to include individual wellhead treatment, various types of blending, and central or regional treatment for multi-well treatment. Options addressed and evaluated will also include well modifications based on results of dynamic well profiling conducted.

Report will, if desired, be structured to meet requirements of Senate Bill 385, to allow continued use of the wells while the CR+6 mitigation project is developed and installed.

SCHEDULE

Estimated or projected time schedule for completion of tasks with City review is as set forth below.

Notice to Proceed	November 30, 2015
Schedule and Conduct Kick-Off Meeting	December 10, 2015
Complete Review of City Records/Reports	January 8, 2016
Coordinate City Conduct of Well Water Sampling and Analysis	January 20, 2016
Submit Preliminary Options, Feasibility, Dynamic Well Profiling, Evaluation and Potential, and Review Meeting	February 23, 2016
Refine Favored Options with Preliminary Costs and Review Meeting	March 18, 2016
Prepare Draft Final Study Report, Submit, and Review Meeting	April 8, 2016

Prepare Final Study Report Document
and Submit

May 14, 2016

Attend Council Meetings

As Scheduled

Estimated time commitment for City staff is anticipated to be as follows:

Director of Public Works

8 Hours/Month

Public Utilities Superintendent

12 Hours/Month

APPENDIX A

ERSC RESUMES

RONALD WORTHINGTON, P.E.

Principal

PROFESSIONAL EXPERIENCE: Mr. Worthington's professional career has focused on both the planning and design aspects of domestic water, wastewater and reclaimed water systems management. In this capacity he has prepared facility master plans and project reports; established design criteria; and, prepared construction drawings, detailed specifications and Engineer's estimates. In addition, Mr. Worthington has served as Construction Manager in responsible charge of shop drawing reviews; on-site inspections; resident engineering; warranty interpretation; and, on-going operations consultation.

Mr. Worthington has been in responsible charge of the planning and design of collection, conventional and advanced wastewater treatment, reclamation and disposal facilities. His current/recent experience is illustrated by the following representative projects:

SAN JACINTO VALLEY RECYCLED WATER PIPELINE, NORTHERN ALIGNMENT PHASE 1 FOR EASTERN MUNICIPAL WATER DISTRICT — Project Manager for the design of plans and specifications for approximately 23,000 linear feet of 36-inch recycled water pipeline from the San Jacinto Valley Regional Water Reclamation Facility to the Alessandro Ponds. Work items included attending District meetings, providing survey, potholing, preparation of construction plans, bid sheets, a construction cost estimate, special conditions, technical specifications, and encroachment permits.

WATER DISTRIBUTION SYSTEM REHABILITATION FEASIBILITY STUDY, PHASE I, Hemet, California — Project Manager during *ERSC's* development of a study on the feasibility of rehabilitating the City of Hemet's present water distribution system.

CACTUS AVENUE ACCESS FROM WVWD OFFICE, Rialto, California — Project Manager during the design of an access road from WVWD's District office to Cactus Avenue along SBCFCD property.

ZONE 2-4 RESERVOIR DRAINAGE SYSTEM, Rialto, California — Project Manager during the design of a pipeline for the Zone 2-4 Reservoir from the end of the existing overflow and drain line to the existing retention basin within the WVWD easement.

RECOATING ZONE 3A-2 RESERVOIR — Project Manager during the preparation of plans and specifications to the West Valley Water District for recoating the top of their Zone 3A-2 Reservoir. Performed inspection during the installation of coating.

PRESSURE REDUCING STATION ON LIVE OAK, Running Springs, California — Project Engineer for the design of site plans and piping details for a new PRV station set to replace an existing corroded station within the Running Springs Water District.

NITRATE STUDY — Project Manager assisting the Big Bear Area Regional Wastewater Agency in analyzing the reason for apparent high Nitrate levels in monitoring wells at the reclamation area.

Study included inventory of the history of nitrogen levels (in various forms) from commencement of the reclamation operation in 1980 to date. Included inventory of nitrogen at various locations in the treatment plant, together with possible geotechnical borings and chemical analysis of soils in the reclamation area. A history of fertilizer and crop patterns is being developed.

WATER RECLAMATION — Project Manager to the Big Bear Area Regional Wastewater Agency during their evaluation of their water resources to mitigate a possible water shortage. Services included upgrades to their treatment plant and pipelines including design, preparation of a feasibility study and updates to their Engineer's Report. The project involved a groundwater recharge project with recycled water.

REGIONAL PLANT NO. 4 — Project Manager for the design of the 7.0 MGD (expandable to 28 MGD) Regional Plant No. 4 for the Chino Basin Municipal Water District. Plant included oxidation ditch extended aeration with turbine aerators, intra-channel clarifiers, nitrogen removal, Title 22 tertiary filtration and ultraviolet disinfection. Services during construction included construction management, inspection and start-up assistance.

WASTEWATER MANAGEMENT SUPPORT SERVICES — Provided staff support services to Eastern Municipal Water District's (EMWD's) Wastewater Enterprise Group during modification and relocation of existing facilities and construction of new facilities. Representative projects include:

- ▶ Evaluation of primary clarifier and scum pumping for the Hemet/San Jacinto Regional Water Reclamation Facility.
- ▶ Evaluation of aerator operation at the Perris Valley Regional Water Reclamation Facility.
- ▶ Evaluation of converting the chlorination system to dechlorination using sulfur dioxide at the Sun City Regional Water Reclamation Facility.
- ▶ Evaluation of inlet gates at the secondary clarifiers and aeration gates to control serpentine flow through the aeration basins for the Hemet/San Jacinto Regional Water Reclamation Facility.
- ▶ Evaluation of the RAS/WAS Pump Station to provide 100 percent return flow for a design of 10 MGD at the Moreno Valley Regional Water Reclamation Facility.

HEMET SAN JACINTO REGIONAL WATER RECLAMATION FACILITY (EMWD) — Project Manager for the design of plans and specifications to modify eight sludge drying beds into two large sludge drying areas and replace two heat recovery pipes at the District's Hemet/San Jacinto Regional Water Reclamation Facility. Work items included attending District meetings, providing necessary survey, preparation of construction plans, bid sheets, a construction cost estimate, special conditions, and, technical specifications.

MORENO VALLEY REGIONAL WATER RECLAMATION FACILITY (EMWD) — Project Manager in charge of the monitoring of the elevations on the influent pump station structure, chiseling TBM's on the structure, elevations for the Secondary Clarifier v-notch weirs along with elevations on the handrails, and returning to check elevations at the District's request.

DE ANZA / SANDERSON SEWAGE LIFT STATION AND FORCE MAIN (EMWD) — Project Manager for the preparation of plans and specifications for a temporary sewage lift station located at the projected intersection of De Anza Drive and Sanderson Avenue in San Jacinto, California. The lift station included two submersible pumps capable of pumping approximately 531 gpm each, piping, valves, electrical controls, switchgear, wiring and appurtenances. Services included assisting the District in the location and acquisition of a 200-foot by 200-foot piece of property for the lift station at the projection of De Anza Drive and Sanderson Avenue; and, the design of approximately 7,000 linear feet of 8- or 10-inch force main from the sewage lift station to a connection point at the main entrance to HSRWRF along Sanderson Avenue.

WASTEWATER TREATMENT PLANT — Design Engineer for the 0.5 MGD expansion of the Running Springs Water District's wastewater treatment plant. The project entailed the conversion of an existing activated sludge unit to an aerobic digester; sizing and selection of RAS/WAS pumps; modifications to the existing headworks and blower building; layout of new sludge drying beds; and, selection of two on-line and one standby blowers. High altitude and associated climatic conditions influenced the design parameters for this project. Start-up and troubleshooting services were performed.

In addition to the above, Mr. Worthington has participated in the preparation of numerous reports for governmental agencies, reviewed design plans for construction of new, and expansion of, existing treatment plants, and prepared Operation and Maintenance Manuals. He has also worked with State Grant Teams to obtain Step I, II and III grants.

In the capacity of Project Manager and/or Principal Engineer, Mr. Worthington has also been in responsible charge of the planning and design of water wells, transmission and distribution pipelines, pump stations, telemetry systems and storage facilities (concrete and steel reservoirs). His current/recent experience is illustrated by the following representative assignments:

PERRIS VALLEY REGIONAL WATER RECLAMATION FACILITY — Project Manager in charge of the design of 6,500 lineal feet of 12-inch pipeline in the Lakeview area from EMWD's 12-inch waterline to Nuevo Water Company's Well No. 4.

CITRUS PLAZA PLAN REVIEW — Project Engineer on behalf of CSA-70-EV-1. Reviewed conceptual proposal for water source, treatment and storage for 125-acre commercial development near Redlands. Review consisted of determination and recommendations to client as to feasibility of separating domestic, fire and landscape irrigation systems and feasibility of treatment of well water for reduction of volatile organics (VO), pesticides and nitrates.

420,000 GALLON RESERVOIR — Project Manager for a 420,000-gallon reservoir for the Soboba Band of Luiseno Indians. The project consisted of a grading plan to allow the construction of a

new reservoir next to the existing 200,000 gallon reservoir. A piping plan shows connections to the existing inlet/outlet pipe and overflow/drain pipe. Investigation of using shutoff valves in case of earthquake activity.

PRELIMINARY ENGINEERING REPORT TO SIZE WATERLINES — Project Manager during a water system analysis for the Soboba Band of Luiseno Indians to determine the size of existing waterlines on their reservation.

DESIGN OF 16-INCH WATERLINE, 1.5 MG RESERVOIR AND APPURTENANCES — As a direct result of the study performed above, the Soboba Band of Luiseno Indians sought out the services of Ron Worthington and *ERSC* to continue with the design of these facilities. This phase of the project included the design of 25,600 linear feet of 16-inch waterline, preparation of plans and specifications for the waterline, a 1.5 MG water reservoir and 4,200 linear feet of access road.

WATERLINE REPLACEMENT PROGRAM — Project Manager during the preparation of a loan application for funds available through the Water Conservation Bond Law of 1988 on behalf of Lake Hemet Municipal Water District. Responsibilities included preparation of application materials, draft specification and oversight of design for 35,000 feet of 8- and 12-inch pipeline.

WEST VALLEY WATER DISTRICT —

- ▶ ZONES 5-2 AND 6-2 BOOSTER PUMP STATIONS — Served as Project Manager during the design of six pumps within the Zones 5-2 and 6-2 Booster Pump Stations.
- ▶ ZONE 7-3 RESERVOIR — Served as Project Manager during the design of sites 7-3 (4.0 MG) and 7-4 (3.0 MG). Work items included preparation of plans for grading, piping and the 4.0 MG and 3.0 MG reservoirs with appurtenances. Services also included full project construction management.
- ▶ WATER SUPPLY ASSESSMENT FOR CITRUS HEIGHTS NORTH EMPIRE LAND, LLC — Project Manager during the preparation of these water supply reports: Summit at Rosena, Kline Ranch, Arboretum Specific Plan, Valley Trails, Ventanta, Cactus Specific Plan, and Pepper Avenue Specific Plan.
- ▶ FACILITY CHARGE STUDY — Project Manager overseeing the investigation and preparation of the facility rate charge study.
- ▶ ZONE 2 — 12-inch waterline (2,000± feet) in Eucalyptus from Well No. 16 two Zone 2-1 Reservoir.
- ▶ ZONES 2 AND 3 — 24-inch and 30-inch waterline (2,640± feet each) across Lytle Creek from Well No. 30 to Terrace Drive.
- ▶ ZONE 4 — 24-inch transmission line (12,000± feet) in Cactus Avenue from Baseline Avenue to Riverside Avenue.

- ▶ ZONE 6 — 30-inch waterline approximately 5,000 lineal feet in Palmetto Avenue, Terra Vista Drive and Live Oak Avenue.
- ▶ ZONE 7 — 24-INCH WATERLINE FROM PUMP STATION 7-1 TO LYTLE CREEK ROAD — Project Manager during the design of approximately 7,000-lineal feet of 24-inch Zone 7 waterline in Riverside and Sierra Avenues from PS 7-1 to Lytle Creek Road.
- ▶ ZONE 7 WATERLINE IN LYTLE CREEK ROAD — Project Manager during the design of approximately 2,640 lineal feet of 24-inch Zone 7 waterline in Lytle Creek Road in Glen Helen Parkway to the West Entry Road and 6,700 lineal feet of 16-inch Zone 8 waterline from Zone 8-1 and 8-2 Reservoir to West Entry Road in Lytle Creek Road and Glen Helen Parkway and design of Zone 8-3 Reservoir (1.5 MG).
- ▶ URBAN WATER MANAGEMENT PLAN — Project Manager during the preparation of an Urban Water Management Plan for the District in February 2000 and revised in April 2005.
- ▶ WATER MASTER PLAN (2004) FOR DISTRICT — Served as Project Manager during the preparation of this water report.

Prior to joining *Engineering Resources*, Mr. Worthington prepared numerous project reports and environmental impact assessments for an area-wide facilities plan to phase needed facilities from 1975 to 2000, including reports in conjunction with a PL84-984 loan application.

REGISTRATION:	1976	CIVIL ENGINEER	California #27395
	1987	ENGINEER/CIVIL	Arizona #21158

CERTIFICATION:	1980	CERTIFICATE OF COMPLETION FOR VALUE ENGINEERING WORKSHOP
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U. S. General Services Administration and
U. S. Environmental Protection Agency

EDUCATION:	1977	M.S. ENVIRONMENTAL ENGINEERING California State Polytechnic University, Pomona, California
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	1973	B.S. CIVIL ENGINEERING California State Polytechnic University, Pomona, California
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MANAGEMENT DEVELOPMENT PROGRAM, I AND II
University of Southern California Extension, Los Angeles,
California

JOHN G. EGAN, PE

Principal Engineer

PROFESSIONAL EXPERIENCE: Mr. Egan has over 50 years of professional civil and environmental engineering experience specializing in the area of water resources and wastewater management. As a Principal Engineer with *ERSC*, Mr. Egan is responsible for direction of conceptual project development, planning and design, preparation of construction documents and planning studies for a variety of water resource projects. In this capacity he directs and/or supervises preparation of planning, derivation and analysis of alternatives and design efforts and is responsible for project administration and client coordination.

Mr. Egan has lent his expertise to the following representative projects:

ARROWBEAR PARK COUNTY WATER DISTRICT - WELL NO. 2, URANIUM REMOVAL TREATMENT - Building upon a successful pilot study that verified to the satisfaction of the State Health Department of the removal efficacy of the use of strong-base ion exchange resin used for treatment of Well Nos. 1 and 3, Mr. Egan coordinated and directed preparation of design and plans for procurement and installation of a second uranium removal treatment plant for the Arrowbear Park County Water District. Project features included pretreatment, sizing and verification of reservoir volume, backwash regeneration, and chlorination. Services also included permit amendment application to the State Health Department.

ALPINE WATER USERS ASSOCIATION - WELLHEAD TREATMENT - To alleviate significant dependence upon imported State Project Water, the Association needed to use an existing high uranium content Well No. 1 and secure State Health Department approval. Services provided by Mr. Egan included assistance in review and site arrangements for the treatment equipment and manufacturer's component sizing as well as preparation of an operational plan for submittal and approval by the State Water Resources Control Board, Division of Drinking Water. Similar document preparation was completed for the Association's Well No. 1 for single-pass resin removal and replacement operating plan.

TWENTYNINE PALMS WATER DISTRICT - Services provided by Mr. Egan to the District in recent years have included management of design and preparation of construction documents for two reservoirs, three booster pumping stations, pipelines, preparation of a Spill Prevention Control and Counter-Measure Plan, and for drilling and equipping of two wells. Well design included the drilling and equipping of Well 17 with wellhead chlorination and most recent and current, that for the drilling of Well 7B as a part of the District Plant 6 Chromium Project. This project entails preparation of a Blending Plan to combine the output of three existing wells, including 7B, to assure compliance with drinking water standards related to fluoride and the new chromium 6 standard. Successful blending will allow use of the wells with high content of these constituents. Required construction documents include that for well construction and a new reservoir to effect blending as well as site piping for routing of the raw blended water to the existing booster pumping stations.

PHELAN-PiÑON HILLS COMMUNITY SERVICES DISTRICT - Mr. Egan is Co-Manager concerning a project being conducted for the Phelan-Piñon Hills Community Services District involving seven wells found to have high chromium content and, therefore, subject to the new Maximum Contaminant Level adopted by the State effective July 1, 2014. Efforts being conducted by Mr. Egan and the team will involve consideration of treatment and ultimately recommendation for blending of the seven wells with other low-chromium wells which the District operates. Project will involve transport of low-chromium water approximately 12 miles for blending in a new five-million gallon reservoir with the high chromium wells and then distribution into the District's system. Multiple points of blending wells will be involved, however, for other high-chromium wells.

TWENTYNINE PALMS WATER DISTRICT - Project undertaken for this District involved the intent of construction of a new well of low arsenic and fluoride content to blend with those of higher content. Prepared was a Blending Plan submitted to the State Water Resources Control Board - Division of Drinking Water to support the intent. However, the project had to be aborted when production from a newly-drilled well, 7B, was too little to justify completion and equipping.

ARROWVIEW VILLAS MUTUAL SERVICE COMPANY - *ERSC* will soon be under contract and authorized to proceed with preparation of a wellhead treatment operation plan for the Arrowview Villas Mutual Service Company in Lake Arrowhead. Effort and project will be similar to that conducted for the Alpine Water Users Association for the Company's 40-gallon per minute well. Purpose is also for the removal or reduction of uranium with the treatment vessels being operated to near-capacity of the resin and then replaced. Resin is then taken offsite for regeneration as discharge cannot be made to the local sewer.

RIVERSIDE COUNTY PARK AND OPEN-SPACE DISTRICT - To meet needs of a growing number of visitors, the Open-Space District needed to increase the capacity and reliability of the potable water system serving Hidden Valley Nature Center. For this assignment, Mr. Egan then prepared a Basis of Design Report and then coordinated and directed preparation of design and plans for construction, equipment, and chlorination treatment of the well discharge, pipelines, reservoir, and a pre-fabricated booster pumping station. Included in features are controls to allow timed discharge of water to a pond to maintain levels for interpretative instruction for elementary school visitors.

EAST RESERVOIR, Yucaipa, California — In completion of a drawn-out process extending over a number of years, Mr. Egan directed completion of design, Conditional Use Permit approval, and permitting by the City Building Department as well as construction-phase services for the Western Heights Water Company's 2-MG East Reservoir. Planned as the fulfillment of a long-term goal of the Company, the reservoir provides a critical storage component for the east end of the Company's service area in Yucaipa. The intent and need is to provide sufficient domestic and fire flow for proposed high-risk commercial development in the area. Included in design were an inlet-outlet mixing feature, site for future booster pumping station, and preparation of an Erosion Control plan and Storm Water Pollution Prevention Plan.

BADGER FIRE STATION, Tulare County, California — *ERSC*, as subcontracted civil designer to the architect, is responsible for sizing and design of water supply and wastewater facilities for the Badger Fire Station, a reconstruction of an existing fire station by the California Department of Forestry and

Fire Protection. As is the norm, it is designated as a critical facility and is located in a remote location near the entrances to Kings Canyon National Park and Sequoia National Forest. Features and tasks required of *ERSC* were completed under Mr. Egan's direction were the pump test and re-equipping of an existing well, design for a potable and fire storage reservoirs, potable and irrigation boosters with VFD capability, and engine-driven fire pump to supply 1,500 gpm fire hydrant flow and 400-gpm sprinkler flow, as well as the necessary pipeline network. All facilities design is subject to review and approval by the State Division of the State Architect.

EDUCATION:

B.S. CIVIL ENGINEERING
Iowa State University

M.S. BUSINESS ADMINISTRATION
Anderson Graduate School of Management
University of California at Los Angeles

ENVIRONMENTAL OPTION
University of Southern California
Graduate School of Civil Engineering

REGISTRATION:

Civil Engineer California #14853

APPENDIX B

THOMAS HARDER & COMPANY THOMAS HARDER RESUME

AND

PROJECT EXPERIENCE

THOMAS E. HARDER

Hydrogeologist

EDUCATION

B.S., Geology. California State Polytechnic University - Pomona, 1990

M.S., Geology with Honors. Emphasis in Hydrogeology, California State University - Los Angeles, 1995

PROFESSIONAL REGISTRATIONS

California Professional Geologist (No. 6512)

Certified California Hydrogeologist (No. 588)

PROFESSIONAL AFFILIATIONS

National Ground Water Association

Groundwater Resource Association of California

Wateruse Association

During his 25 years of professional experience, Mr. Harder has provided technical direction and management for some of the largest water resource projects in southern California, including the Chino Desalter Well Field Design and Construction, the Kern Water Bank, and the Mojave Water Agency's Regional Recharge and Recovery Project. His expertise spans a wide range of hydrogeological disciplines, including regional groundwater basin analysis, perennial yield (i.e. safe yield), artificial recharge, groundwater management, groundwater models, contaminant hydrogeology, and water wells.

PROFESSIONAL EXPERIENCE

2008 to Present: *Principal Hydrogeologist*, Thomas Harder & Co.; Anaheim, California

1998 to 2008: *Senior Geohydrologist*, Geoscience Support Services, Inc.; Claremont, California

1997 to 1998: *Principal Hydrogeologist*, Geosciences Department Manager, Parsons Engineering Science; Pasadena, California

1989 to 1997: *Senior Geologist*, Harding Lawson Associates; Irvine, California

TECHNICAL COMMITTEE PARTICIPATION

2009 to Present: Jurupa Community Services District Representative on the Chino Basin Watermaster Appropriative Pool and Advisory Committee

2011 to Present: Chino Watermaster Recharge Master Plan Steering Committee

2003 to Present: City of Big Bear Lake Department of Water and Power Groundwater Management Plan Technical Review Team

2002 to Present: Chino Basin Subsidence Technical Committee

THOMAS E. HARDER

Hydrogeologist

PROJECT EXPERIENCE – WELLS AND WELL FIELD DESIGN

Construction and Testing of Municipal Production Wells – Southern California

Client: Multiple Water Districts and Cities. 1998 to 2014.

Provided technical direction and field oversight for the drilling, design and construction of more than 50 high capacity municipal water supply wells throughout Southern California. Included development of technical specifications, field inspection of the drilling process including borehole logging, inspection of geophysical logging, aquifer zone testing, well construction, well development, pumping tests, water quality sampling, and flowmeter surveys. Provided technical direction for the design of wells including the evaluation of field borehole logs, cuttings samples, sieve analyses, geophysical logs and zone-specific water quality analyses. Prepared and coordinated the preparation of numerous well completion reports. Wells have included:

- *Baldy Mesa Water District* (1 Production Well - No. 9)
- *Beaumont Cherry Valley Water District* (5 Production Wells - 23, 24, 25, 26, SunnyCal No. 4)
- *Big Bear City Community Services District* (4 Production Wells - 3B, 8, 9 and 10)
- *California Department of Forestry and Fire Protection* (1 Production Well – Owens Valley)
- *California Water Service Company* (1 Production Well - Bakersfield Station 214-01)
- *Chino Basin Desalter Authority* (9 Chino II Desalter Wells - II-1, II-2, II-3, II-4, II-6, II-7, II-8, II-9, II-9a), (3 Chino I Expansion Wells - I-13, I-14, I-15)
- *City of Big Bear Lake Dept. of Water and Power* (9 Production Wells - Canvasback, McAlister, Moonridge, Sheephorn, Magnolia, Sawmill, Seminole, Cherokee, and Arrastre Creek)
- *City of Blythe* (1 Production Well)
- *City of Ontario* (2 Production Wells - 40 and 41)
- *Coachella Valley Water District* (Design Only - 10 Production Wells)
- *Eastern Municipal Water District* (1 Perris II Desalter Well 93)
- *High Valleys Water District* (1 Production Well – McMullen Flat)
- *Highland Fairview Development* (2 Production Wells)
- *Jurupa Community Services District* (3 Production Wells - 22, 23, and 25)
- *Lake Arrowhead Community Services District* (2 Production Wells - 6 and 8)
- *M.D.J. Development Company* (1 Production Well - Alta Vista Country Club Well)
- *Metropolitan Water District of Southern California – (Cadiz)* (1 Production Well -PW-1)
- *Rancho Mission Viejo* (1 Production Well – Well 5)
- *San Diego County Water Authority / City of Oceanside* (3 Production Wells - PW-9, PW-10 and PW-11)



THOMAS E. HARDER

Hydrogeologist

PROJECT EXPERIENCE – WELLS AND WELL FIELD DESIGN

Ortega Treatment Plant Well Evaluation – Santa Barbara, CA

Client: Carollo Engineers/City of Santa Barbara. 2010.

Conducted a detailed evaluation of four wells to be used to supply water to the Ortega Treatment Plant. Included evaluation of downhole video logs of each well and development of a well rehabilitation strategy.

Depth-Specific Well Testing, Helendale Community Services District Well No. 9 – Helendale, CA

Client: Helendale Community Services District. 2010.

Designed a depth-specific water quality sampling program for Well No. 9 in order to assess the potential for packing off portions of the well with high total dissolved solids concentrations.

Perris II Desalter Wells Test Drilling and Well Design – Perris, CA

Client: Eastern Municipal Water District. 2009 to 2010.

Conducted a comprehensive well siting and test drilling program that including identification of seven potential well sites and test drilling at six sites. Data collected from the test drilling program was used to develop preliminary designs and technical specifications for high capacity desalter production wells at four of the sites.

Seawater Injection Barrier Well Evaluation – West and Central Basins, CA

Client: West Basin Municipal Water District. 2007 to 2008.

Evaluated injection well barrier performance for the Alamitos, Dominguez Gap and West Coast Basin Seawater Injection Barriers. Specific injection decline in wells was correlated with water quality criteria for injection water in the context of increasing the percentage of recycled water for injection. Provided recommendations for future rehabilitation methods and frequency.

Seawater Supply Well and Brine Injection Well Design – Cabo San Lucas, Mexico

Client: Confidential, 2006 to 2008.

Provided management oversight of a test drilling program to obtain design parameters for a seawater supply well for a desalination system in southern Baja California, Mexico. The supply well was designed with 8-inch diameter AL6XN steel. Two injection wells were also designed for the purpose of discharging brine waste from the desalination process.

Well Rehabilitation Program, IRWD Well 5 – Santa Ana, CA

Client: Irvine Ranch Water District. 2008.

Developed a well rehabilitation program for one well. Included review of video logs and general recommendations for mechanical redevelopment.



THOMAS E. HARDER

Hydrogeologist

PROJECT EXPERIENCE – WELLS AND WELL FIELD DESIGN

Depth-Specific Well Testing, WMWD New Clay Well – Murrieta, CA

Client: Western Municipal Water District. 2008.

Designed a depth-specific water quality sampling program for the New Clay Well in order to assess changes in arsenic concentrations at various screened intervals within the well. The results of the testing will be used to provide recommendations for installing a packer to lower the arsenic concentrations in the discharge water.

Depth-Specific Well Testing, City of Ontario Well 50 – Ontario, CA

Client: City of Ontario. 2008.

Designed a depth-specific water quality sampling program for Well 50 in order to characterize the vertical distribution of perchlorate, color, and total dissolved solids within the well. The results of the testing were used to recommend a setting depth for an inflatable packer to limit production from the impacted aquifers.

Well Rehabilitation Program, IRWD Wells 21 and 22 – Tustin, CA

Client: RBF Consulting/Irvine Ranch Water District. 2008.

Developed a well rehabilitation program for two wells. Included development of detailed technical specifications for both chemical and mechanical rehabilitation. The specifications were developed based on review of video logs and sidewall sampling and analysis for each well.

Well Destruction, IRWD Well 14 – Tustin, CA

Client: RBF Consulting/Irvine Ranch Water District. 2008.

Developed detailed technical specifications for the destruction of one well. The specifications were developed in accordance with Department of Water Resources and local requirements.

Well Rehabilitation Program, Mooncamp Development Well FP-2 – Fawnskin, CA

Client: Confidential. 2008.

Developed a well rehabilitation and testing program for one well. Included development of detailed technical specifications for both chemical and mechanical rehabilitation. The specifications were developed based on review of a video log of the well. Provided field inspection of rehabilitation efforts and follow-on pumping tests to assess rehabilitation effectiveness and potential interference with private wells in the area. Also collected water quality samples for evaluation of groundwater under the direct influence of surface water.



THOMAS E. HARDER

Hydrogeologist

PROJECT EXPERIENCE – WELLS AND WELL FIELD DESIGN

Seawater Production Well Feasibility Study – Oceanside, California

Client: Tetra Tech/City of Oceanside. 2007 to 2008.

Developed a near-shore drilling and testing investigation program to assess the feasibility of producing seawater from wells in near-shore aquifers for the purpose of desalination. The testing program followed recommendations made to the City of Oceanside for seawater production as an alternative water supply. The program included drilling and testing one nested monitoring well and design of one test well.

Preliminary Design Report for Three ASR Wells – Pasadena, CA

Client: RMC Water/City of Pasadena. 2006 to 2007.

Provided technical direction and quality control for development of a preliminary design for three aquifer storage and recovery wells in the City of Pasadena (MacDonald Park, Victory Park and Craig Well). The design followed a well siting analysis and included a description of the hydrogeologic setting, recommended well design, a recommended operation and maintenance program, and planning costs for the drilling and construction of the wells.

Lake Arrowhead Well Site Evaluation – Lake Arrowhead, CA

Client: RMC Water/Lake Arrowhead Community Services District. 2006 to 2007.

Evaluated and ranked 18 potential well sites in the Lake Arrowhead area for possible future production wells. The sites were evaluated with respect to hydrogeology, property ownership, drilling access, proximity to existing infrastructure, and environmental issues. Three sites were selected for new wells.

Victorville City-Wide Well Site Evaluation – Victorville, CA

Client: City of Victorville. 2006 to 2007.

Conducted a comprehensive well site evaluation for wells to supply water for the Southern California Logistics Airport in Victorville. Considerations included production yield potential, groundwater quality (both regional and point source contamination), potential for excessive drawdown in areas with other wells, environmental concerns, and proximity to the City's existing pipeline distribution system. Developed well site potential zones for use by the City in locating future well sites.

Murrieta Valley Well Site Evaluation – Murrieta, CA

Client: Western Municipal Water District. 2007.

Identified and evaluated six potential well sites within the Murrieta Valley. As a result of the study, one well site is being pursued for construction of a production well.



THOMAS E. HARDER

Hydrogeologist

PROJECT EXPERIENCE – WELLS AND WELL FIELD DESIGN

Beach Well Feasibility Study – Cabo San Lucas, Mexico

Client: Confidential. 2006 to 2008.

Provided field oversight and management of a test drilling program on two beaches in southern Baja California, Mexico. The program included the drilling and testing of borcholes, a monitoring well and an 8-inch diameter test well for the purpose of evaluating the feasibility of beach wells as water supply for seawater desalination systems.

Gobernadora Multi-Use Basins Well Field Design Study – Rancho Mission Viejo, CA

Client: Santa Margarita Water District. 2005 to 2006.

Project manager and lead technical advisor for a wellfield design alternatives analysis for a surface water diversion/artificial recharge facility in southern Orange County. The evaluation included development of a MODFLOW model of the proposed spreading basins and selection of potential well sites. Developed a drilling and testing protocol for construction of the wells.

Well Rehabilitation Evaluation – Chino, CA

Client: Chino Basin Desalter Authority. 2005 to 2006.

Conducted an evaluation of declining production capacity in eleven Chino I Desalter wells. Included evaluation of video logs, water chemistry data, Southern California Edison pumping test data, groundwater levels and production. Based on the evaluation, provided specific rehabilitation recommendations for each of the eleven wells.

Well Sites Evaluation – High Valleys, CA

Client: High Valleys Water District. 2003 to 2005.

Conducted a reconnaissance level well site evaluation within the High Valleys Water District area, located between Idyllwild and Banning in southern California.

Private Well Evaluation – Fawnskin, CA

Client: City of Big Bear Lake Department of Water and Power. 2004.

Developed and implemented a well evaluation protocol for determining the suitability of four existing private wells in the Fawnskin area north of Big Bear Lake for incorporation into the City's distribution system. Included onsite inspection of downhole video logs of each well, redevelopment, pumping tests, water quality analyses and reporting.

Jurupa Community Services District District-Wide Well Site Evaluation – Mira Loma, CA

Client: Jurupa Community Services District. 2003.

Conducted a comprehensive well site evaluation within the JCSD boundaries. Considerations included production yield potential, groundwater quality (both regional and point source contamination), potential for excessive drawdown in areas with other wells, and potential to exacerbate existing environmental problems (i.e. subsidence). Developed well site potential zones for use by the District in locating future well sites.



THOMAS E. HARDER

Hydrogeologist

PROJECT EXPERIENCE – WELLS AND WELL FIELD DESIGN

City of Ontario City-Wide Well Site Evaluation – Ontario, CA

Client: City of Ontario. 2002.

Conducted a comprehensive well site evaluation within the City boundaries. Considerations included production yield potential, groundwater quality (both regional and point source contamination), potential for excessive drawdown in areas with other wells, potential to exacerbate existing environmental problems (i.e. subsidence), and proximity to the City's existing pipeline distribution system. Developed well site potential zones for use by the City in locating future well sites.

Chino Desalter System Projects Well Field Design – Chino, CA

Client: Santa Ana Watershed Project Authority. 2001 to 2002.

Project manager and senior technical lead for the design of a 13-well well field in the southern Chino Basin. Included development of a comprehensive well field design protocol that considered property access, environmental concerns, Chino Basin Watermaster goals, potential interference with existing pumpers, and pipeline costs.

City of Arcadia Infrastructure Restoration and Design – Arcadia, CA

Client: Cities of Arcadia and Sierra Madre. 1998 to 1999.

Developed a detailed hydrogeologic analysis of the Raymond Basin to evaluate potential sites for new production wells. The analysis included development of a watershed hydrologic model and a groundwater flow model. The model was used to assess potential pumping interference from proposed well sites with existing production wells. As a result of the project, three sites were recommended based on a priority system that considered location with respect to existing wells, location with respect to faults, available groundwater resources, water quality, and proximity to existing City facilities.



APPENDIX C

TRUSSELL TECHNOLOGIES, INC.

COMPANY BACKGROUND

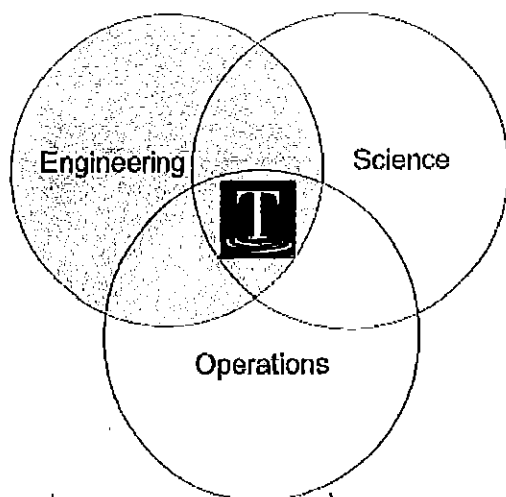
AND

RESUMES

COMPANY BACKGROUND

Trussell Technologies, Inc.
(<http://www.trusselltech.com/>)

Founded in 2003 by Dr. Rhodes Trussell, Trussell Technologies is an environmental engineering firm focused on process and water quality. Building upon his vision, Trussell Tech has grown into a consulting firm with unsurpassed technical expertise that has a unique ability to find simple, practical and cost-effective solutions to complex water quality problems.



Trussell Tech understands that engineers use experience with successful designs to ensure future success, but when new challenges arise, science must also play a critical role in problem solving. In addition to designs and planning for new facilities, our firm is grounded with the application of practical science to operating facilities that has generated proven results to reduce costs and enhance performance.

Trussell Tech is composed of energetic, highly trained people under the tutelage of one of the industry giants (Dr. Rhodes Trussell). In 2012, Dr. Shane Trussell was appointed President and he continues with his father's vision in his new position. Dr. Rhodes Trussell remains Chairman of the company and continues to play a key role in many of our challenging projects.

The firm has grown to 30 employees with offices in Pasadena, San Diego, and Oakland. The firm employs ten professionals with Ph.D.'s in environmental engineering; 12 engineers are registered with their Professional Engineering license in the State of California; and one engineer is registered with their Professional Engineering license in the State of New Mexico, and 6 are Board Certified Environmental Engineers. Our Pasadena office staffs the largest group of engineers and is home to our proposed Project Manager David Hokanson, and Technical Advisor Rhodes Trussell.

Trussell Technologies is a leader in selecting the most appropriate treatment technology for any water application. The firm applies new thinking to develop novel approaches for water projects. The most cost effective solution is to maximize a utilities' existing investment in operating infrastructure and our firm has a proven track record that has resulted in additional treatment capacity without any additional construction.

Southern California is blessed with vast groundwater basins, but the agricultural and industrial machines that were used to build the Southern California economy contaminated these groundwater basins with things like nitrate, perchlorate, NDMA, hexavalent chrome, chlorinated solvents, etc. Trussell Technologies is also well versed in the technologies required to remove the contaminants from these impaired groundwaters as well.

**PROJECT EXPERIENCE****Project Title: Evaluation of Treatment Alternatives and CDPH Permitting for the Puente Valley Operable Unit**

Client: Geosyntec Consultants
 Company: Trussell Tech
 Year: 2014-Current
 Personnel: David Hokanson, Rhodes Trussell

Project Expertise:

✓	Hexavalent Chromium Removal
✓	Perchlorate Removal
✓	Ion Exchange Process

A treatment train is under development for removal of VOCs, perchlorate, 1,4-dioxane, as well as TDS, nitrate, and selenium for groundwater in the Puente Valley Operable Unit in the San Gabriel Valley. Trussell Technologies is providing an evaluation of the entire treatment train and contributing toward the development of a basis of design report and preliminary design including consideration of air stripping and/or liquid phase GAC for removal of VOCs, ion exchange for the removal of perchlorate, and UV AOP for the removal of 1,4-dioxane. Trussell Tech prepared a basis-of-design report for liquid phase GAC, ion exchange, and UV AOP. Trussell Technologies is supporting permitting activities under DDW Policy Memo 97-005 for an extremely impaired groundwater source. Trussell Tech also evaluated hexavalent chromium (Cr6) treatment options when the DDW MCL of 10 µg/L went into effect in July 2014. Treatment technologies evaluated for Cr6 included weak base anion exchange, strong base anion exchange, reduction-coagulation-filtration, and reduction-coagulation-microfiltration.

Project Title: Nevada Environmental Response Trust Draft Remedial Action Plan Technical Review Focused on Perchlorate Remediation

Client: Metropolitan Water District of Southern California
 Company: Trussell Tech
 Year: 2013
 Personnel: Rhodes Trussell, David Hokanson

Project Expertise:

✓	Perchlorate Removal
✓	Fluidized Bed Biological Reactors

Metropolitan Water District (MWD) is a public agency of the State of California engaged in transporting, storing, and distributing water in the counties of Los Angeles, Orange, Riverside, San Diego, San Bernardino, and Ventura, within the State of California. MWD hired Trussell Tech to review and evaluate the Remedial Investigation/Feasibility Study Work Plan for the Tronox/Nevada Environmental Response Trust Site in Henderson, Nevada. The work plan is primarily concerned with the contamination of groundwater with perchlorate and hexavalent chromium as well as a lesser contamination problem associated with VOCs. Treatment technologies employed at the Site include biological fluidized bed reactors for the removal of perchlorate and hexavalent chromium.

Among Trussell Tech's scope was: reviewing all the initial and secondary screening of technologies and process options presented in the RI/FS WP for adequacy and/or omissions; preliminary Remedial Action Alternatives; review to identify whether the potential for combining alternatives or using different alternatives for sub-areas (Operable Units) of the facility was adequately addressed.

The review considered potential future, more-stringent drinking water standards (such as perchlorate and hexavalent chromium) when assessing the remedial technologies and process options including navigating the potential for changes to CDPH regulations in California. Additionally, the capabilities of existing remediation systems to meet more-stringent standards were evaluated.



Fluidized Bed Biological Reactors that Treat Perchlorate

Trussell Technologies, Inc.



Project Title: Appraisal for the City of Santa Monica v. Baron & Budd, P.C. et al. (LASC Case No. BC 315186)

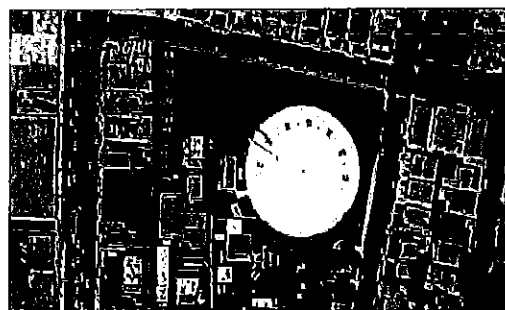
Client: Los Angeles Superior Court
Year: 2005-06
Company: Trussell Tech
Personnel: Rhodes Trussell, David Hokanson

Project Expertise:

✓	Ion Exchange Process
✓	Full-Scale Design Review

In August 1995, the City of Santa Monica (COSM) discovered the gasoline additive methyl tertiary-butyl ether (MtBE) in drinking water supply wells at its Charnock Wellfield, shut down the affected wells, and secured replacement water from the Metropolitan Water District (Metropolitan). A lawsuit was then filed by COSM against the potentially responsible parties (PRPs) for redress of the contaminated drinking water wells. This lawsuit was settled in 2003 and required the PRPs to pay for the design, construction, operation and maintenance of a water treatment plant to treat the contaminated groundwater to potable water quality standards. Following settlement of the initial lawsuit, a second lawsuit was filed by COSM against Baron & Budd, P.C. et al., to resolve the question of what the monetary value of the initial lawsuit was. Trussell Technologies, Inc. was retained by Judge Minning of the Los Angeles Superior Court as the Appraiser in the case of Santa Monica v. Baron & Budd, P.C. et al. to appraise the value of the design, construction, operation and maintenance of a water treatment plant to treat the Charnock well water contaminated with MtBE and related hydrocarbons to potable water standards until such time as the groundwater quality entering the treatment plant met potable water standards for the constituents

of concern (COC). Trussell Technologies conducted a detailed analysis of potential technologies for the treatment of MtBE that considered air stripping, granular activated carbon and various advanced oxidation technologies including ozone, ozone/H₂O₂, and UV/H₂O₂. As a part of the analysis, the project team visited two sites employing HiPOx™ ozone treatment systems and carefully considered the technology. At the same time, strategies to mitigate bromate formation with ozonation processes including pH depression, ammonia addition, and the chlorine-ammonia process were considered, but ultimately UV/H₂O₂ was selected as the preferred AOP because of the possibility of bromate formation with ozonation at the levels of bromide present in the raw water. Trussell Technologies, Inc. developed a 10 percent



Aerial View of the Arcadia Treatment Plant Site

design for a \$60 million ultraviolet light/hydrogen peroxide (UV/H₂O₂) advanced oxidation facility using Trojan's UVPhox advanced oxidation process (AOP) equipment to meet the Settlement Agreement requirements. Using this AOP facility design, Trussell Technologies, Inc. prepared an appraisal that included design, construction, operation, and maintenance.



PROJECT TEAM

David Hokanson, Ph.D., P.E., BCEE will be the Project Manager for this project. Dr. Hokanson has 19 years experience and has performed numerous technology evaluations in practice using engineering design tools he developed for air stripping, ion exchange, adsorption, and UV advanced oxidation that are commonly used in the industry today. His doctoral work focused on application of ion exchange processes for the International Space Station Water Processor. He has experience with several groundwater remediation projects, including development of a 10% design for the Santa Monica Charnock Well Treatment Facility and process selection and regulatory evaluation for the groundwater remediation processes within the Puente Valley Operable Unit where he did a detailed evaluation of hexavalent chromium treatment. Dr. Hokanson has managed several projects and provided technical expertise for treatment trains involving physical and chemical processes like the ion exchange processes that may be used in this project. Dr. Hokanson will bring his vast experience on groundwater treatment processes to ensure a quality completion of this hexavalent chromium water quality and treatment evaluation.

Rhodes Trussell, Ph.D., P.E., BCEE will serve as a Technical Advisor for this project. Dr. Trussell has over forty years of experience and is an industry leader recognized worldwide as an authority in methods and criteria for water quality and in the development of advanced processes for treating water and wastewater to achieve the highest standards. Dr. Trussell is a member of the National Academy of Engineering and in recent years received the A.P. Black Research Award from AWWA and the NWRI Clarke Prize among several others. He has a long history with ion exchange and biological fluidized bed reactors that may be potential solutions for treatment of hexavalent chromium on this project.



**David Hokanson, Ph.D., P.E.,
BCEE**

EDUCATION:

Ph.D., Environmental Engineering, *Michigan Technological University*

M.S., Civil Engineering, *Michigan Technological University*

B.S., Environmental Engineering, *Michigan Technological University*

REGISTRATION:

Civil Engineer, State of California – No. 70254

Professional Engineer, State of Michigan – No. 6201052273

CERTIFICATION:

Board Certified Environmental Engineer, American Academy of Environmental Engineers –No. 09-10037. Specialties: 1. Water Supply & Wastewater. 2. Environmental Sustainability.

HONORS:

2011 AWWA Water Quality & Technology Division Best Paper Award – Wilczak, A., D.R. Hokanson, R.R. Trussell, M. Boozarpour, and A. DeGraca (2010) "Water Conditioning for LCR Compliance and Control of Metals Release in San Francisco's Water System" J. AWWA, 102(3):52-64.

SUMMARY:

Dr. Hokanson is an expert on physical and chemical processes applied to water treatment with over 15 years of experience and more than 50 publications. He has developed engineering design tools for water treatment for the EPA & for wastewater reuse onboard the International Space Station for NASA. Select projects include providing treatment and regulatory expertise for the Puente Valley Operable Unit including a hexavalent chromium treatment evaluation; evaluation of groundwater treatment for the Baldwin Park Operable Unit, and preparation of a 10% design for MtBE/TBA treatment for Santa Monica's Charnock Wells; groundwater desalination for the City of San Juan Capistrano, the City of Camarillo, and the Rainbow Municipal Water District; Dr. Hokanson currently serves as Chair of the Water Quality Division for the CA-NV Section of the American Water Works Association.

EMPLOYMENT HISTORY

PRINCIPAL ENGINEER II, TRUSSELL TECHNOLOGIES, INC. - PASADENA, CA (01/15 – present)

Managed groundwater remediation project focused on process selection and CDPH/DDW regulatory interaction for the Puente Valley Operable Unit involving GAC, ion exchange, AOP, and RO treatment including a hexavalent chromium treatment evaluation, a groundwater treatment project for RO and Fe/Mn treatment, and a groundwater treatment project for TBA, among others including UV AOP projects for reuse.

PRINCIPAL ENGINEER I, TRUSSELL TECHNOLOGIES, INC. - PASADENA, CA (01/12 - 12/14)

Managed water quality assessment for West Basin MWD's Ocean Water Desalination Demonstration Facility; Evaluated corrosion issues for Santa Margarita Water District; Performed ion exchange performance evaluation for perchlorate removal.

SUPERVISING ENGINEER III, TRUSSELL TECHNOLOGIES, INC. - PASADENA, CA (01/09 - 12/11)

Managed advanced oxidation portion of pilot project for water reuse with Los Angeles Department of Water and Power with MF/RO and advanced oxidation; coordinated experimental plan & stormwater sampling for determining impacts of storm events on the ocean intake and RO treatment train for seawater desalination; coordinated and developed experimental plan and sampling logistics for marine biotoxins monitoring and their potential impacts on seawater RO desalination.

SUPERVISING ENGINEER II, TRUSSELL TECHNOLOGIES, INC. - PASADENA, CA (01/08 - 12/09)

Evaluated water quality and disinfection alternatives and developed preliminary design for disinfection system for 250 MG Upper Chiquita emergency storage reservoir in south Orange County. Evaluated the issue of emerging contaminants and the influence of wastewater including pharmaceuticals and personal care products and the effectiveness of treatment by RO for the City of Camarillo's groundwater supply.

SUPERVISING ENGINEER I, TRUSSELL TECHNOLOGIES, INC. - PASADENA, CA (09/06 - 12/07)

Has performed a water assessment with regard to regulatory requirements and is evaluating post-treatment strategies involving corrosion control and disinfection for a Temporary Ocean Water Desalination Demonstration Facility at West Basin Municipal Water District. Advised multiple Korean engineering firms and the Korean Water Resources Corporation (KOWACO) on various treatment processes including deep bed filtration and taste and odor control. Evaluated perchlorate treatment in Las Vegas Valley for MWD involving understanding the level of perchlorate in Colorado River Water (CRW).

SENIOR ENGINEER II, TRUSSELL TECHNOLOGIES, INC. - PASADENA, CA (07/05-08/06)

Joined company as a Senior Engineer II. Dr. Hokanson's role has included evaluation of optimal corrosion control strategies for water utilities to meet regulatory requirements involving blending of water sources; engineering design calculations for drinking water treatment involving various processes including mathematical process modeling; and development of a cost estimate including design, construction, operation, and maintenance.

MICHIGAN TECHNOLOGICAL UNIVERSITY PROFESSIONAL STAFF HOUGHTON, MI (full time 1996-2005)

Research Engineer, Dept. of Civil and Environmental Engineering. Dr. Hokanson served as Project Manager or Project Engineer on numerous projects described below. Rose to position of Operations Manager of the Sustainable Futures Institute (Founding Director was John C. Crittenden) from 2003-2005.

**MICHIGAN TECHNOLOGICAL
UNIVERSITY FACULTY - HOUGHTON,
MI (2004-present)**

Adjunct Assistant Professor, Dept. of Civil and Environmental Engineering and Member of the Graduate Faculty, Graduate School: Has co-advised a graduate student, served on dissertation committees of various graduate students, taught a course on environmental regulations, and taught various lectures in graduate/undergraduate courses on environmental process engineering, separation processes, drinking water treatment and wastewater treatment.

**CONSULTING WHILE AT MICHIGAN
TECH (1992-2005)**

While at Michigan Tech, Dr. Hokanson served as a consultant, along with Professors Hand and/or Crittenden, for various engineering firms including SAIC International (air stripping); Carollo Engineers (adsorption); Moen, Inc. (adsorption); Camp, Dresser and McKee (adsorption); the City of Cedar Rapids, Iowa (odor control); and MWH Global (assisted writing the 2nd Edition of *Water Treatment: Principles and Design*).

**MICHIGAN TECHNOLOGICAL
UNIVERSITY- HOUGHTON, MI (full time
June 1994-May 1996; part time June
1996-February 2004)**

Ph.D. Research: Dr. Hokanson developed mathematical models for ion exchange from first principles including mass transfer and equilibrium models. The models were applied to wastewater reuse within the International Space Station Water Processor.

Advisor: David W. Hand. Co-Advisor: John C. Crittenden.

**MICHIGAN TECHNOLOGICAL
UNIVERSITY-HOUGHTON, MI (Sept.
1992-May 1994)**

M.S. Research: Dr. Hokanson developed engineering design tools for water treatment including adsorption, air stripping, and physical property estimation that are in widespread commercial use, especially in consulting engineering firms. Advisor: David W. Hand. Co-Advisor: John C. Crittenden.

ORGANIZATIONS:

American Water Works Association
International Water Association
Water Environment Federation
International Ozone Association (IOA)
International Ultraviolet Association (IUVA)
Association of Environmental Engineering
and Science Professors (AEESP)
Groundwater Resources Association of
California (GRAC)

PROJECT EXPERIENCE (Select projects):

Geosyntec Consultants

Evaluation of Treatment Alternatives and Gaining CDPH Approval for the Puente Valley Operable Unit
Year: 2014

A treatment train is under development for removal of VOCs, perchlorate, 1,4-dioxane, as well as TDS, nitrate, and selenium for groundwater in the Puente Valley Operable Unit in the San Gabriel Valley. Trussell Technologies is providing an evaluation of the entire treatment train and contributing toward the development of a basis of design report and preliminary design including consideration of air stripping and/or liquid phase GAC for removal of VOCs, ion exchange for the removal of perchlorate, and UV AOP for the removal of 1,4-dioxane. SPI is evaluating partial RO to meet the nitrate primary MCL and TDS secondary MCL, as well as surface water discharge requirements for selenium and has developed a basis of design report, as well as a specification for

the RO system with decarbonation. Both Trussell Technologies and SPI are supporting permitting activities under CDPH Policy Memo 97-005 for an extremely impaired groundwater source. Dr. Hokanson is leading Trussell Tech's efforts in the evaluation of treatment alternatives and meeting CDPH requirements for the treatment train. The work included a detailed evaluation of hexavalent chromium treatment including weak base anion, strong base anion, reduction-oxidation-filtration, and reduction-oxidation-microfiltration, and RO treatment technologies.

Role: Project Engineer

Metropolitan Water District of Southern California

Nevada Environmental Response Trust Draft Remedial Action Plan Technical Review Focused on Perchlorate Remediation
Year: 2013

Metropolitan Water District (MWD) is a public agency of the State of California engaged in transporting, storing, and distributing water in the counties of Los Angeles, Orange, Riverside, San Diego, San Bernardino, and Ventura, within the State of California. MWD hired Trussell Tech to review and evaluate the Remedial Investigation/Feasibility Study Work Plan for the Tronox/Nevada Environmental Response Trust Site in Henderson, Nevada. The work plan is primarily concerned with the contamination of groundwater with perchlorate and hexavalent chromium as well as a lesser contamination problem associated with VOCs. Treatment technologies employed at the Site include biological fluidized bed reactors for the removal of perchlorate and hexavalent chromium.

Among Trussell Tech's scope was: Reviewing data gaps identified in the Remedial Investigation / Feasibility Study Work Plan and recommendations for addressing these identified data gaps for adequacy and/or omissions; review identified ARARs and RAOs for completeness and their appropriateness for screening alternative remedial technologies; Groundwater

Treatment System Operations: review of current system and operations in regards to operating efficiency and potential for long-term cost savings / cost reduction strategies; Technologies and Process Options: review all the initial and secondary screening of technologies and process options presented in the RI/FS WP for adequacy and/or omissions; preliminary Remedial Action Alternatives: review to identify whether the potential for combining alternatives or using different alternatives for sub-areas (Operable Units) of the facility was adequately addressed.

The review considered potential future, more-stringent drinking water standards (such as perchlorate and hexavalent chromium) when assessing the remedial technologies and process options including navigating the potential for changes to CDPH regulations in California. Additionally, the capabilities of existing remediation systems to meet more-stringent standards were evaluated.

Role: Project Manager

Cooperating Respondents

Title: Evaluation of Treatment Technologies for the Baldwin Park Operable Unit

Year: 2015-present

Trussell Technologies, Inc. is aiding the Cooperating Respondents by reviewing process performance and making recommendations for potential improvements in operations. Trussell is also reviewing design criteria and operational test plan to ensure an efficient well-balanced treatment system is being put in place. Technologies evaluated include ion exchange for perchlorate removal, UV AOP, and air stripping. Activities included discussions of implementation of potential changes and gaining approval by the Division of Drinking Water

Role: Principal-in-Charge

Los Angeles Superior Court

Title: Appraiser, LASC Case No. BC 315186
City of Santa Monica v. Baron & Budd P.C. et al.

Date: 2005 - 2006

Trussell Technologies was appointed by Superior Court Judge David Minning as the Appraiser in a suit between Santa Monica and a group of attorneys that had represented the City in an earlier suit. The Appraiser's assignment was to determine the value of the Settlement in that earlier suit. The Appraisal involved estimating the cost to design, permit, build and operate a water treatment plant to remove methyl tertiary butyl ether and tertiary butyl alcohol from groundwater until the groundwater was no longer contaminated. Trussell Technologies, Inc. developed a 10 percent design for a \$60m UV/H₂O₂ advanced oxidation facility using Trojan's UVPhox advanced oxidation process (AOP) equipment to meet the Settlement Agreement requirements. Using this AOP facility design, Trussell Technologies, Inc prepared an appraisal that included design, construction, operation and maintenance. Dr. Hokanson was responsible for the selection and sizing of the UV/ H₂O₂ advanced oxidation process to meet the treatment targets, design calculations for other processes (e.g., GAC adsorption, CO₂ stripper) in the treatment train, and cost estimate calculations for 7,680 scenarios to represent possible outcomes in an uncertain future including various capital cost and operating and maintenance cost scenarios.

Role: *Project Engineer*



R. Rhodes Trussell, Ph.D., P.E., BCEE

EDUCATION:

Ph.D., Sanitary Engineering, *University of California, Berkeley*

M.S., Sanitary Engineering, *University of California, Berkeley*

B.S., Civil Engineering, *University of California, Berkeley*

Graduate, *Stanford Executive Program*

REGISTRATION:

Civil Engineer, State of California - No. 25107

Corrosion Engineer, State of California - No. 745

CERTIFICATION:

Board Certified Environmental Engineer, American Academy of Environmental Engineers

HONORS

1995 National Academy of Engineering

2001 AAMWA Boyd Award

2005 AEESP/AEEE Pohland Medal

2010 AWWA Black Award

2012 IWA's Global Water Award

2013 NWRI Clarke Prize

SUMMARY:

Dr. Trussell is recognized, worldwide, as an authority in methods and criteria for water quality and in the development of advanced processes for treating water and wastewater to achieve the highest standards. He is often called upon to help utilities effectively manage critical projects involving regulatory authorities and public health. Dr. Trussell has also for more than 40 years maintained an active practice in the corrosion of materials in water systems, having conducted more than a dozen pipe-loop tests. He is sought nation wide as a consultant on water problems having advised the Cities of San Diego, Los Angeles, San Francisco, Oakland (EBMUD), Concord (CCWD), Portland, OR; Tacoma and Seattle, WA, Boston, MA; New York; and Washington DC and many others. Recent projects include: Appraiser for the Los Angeles Superior Court for the Santa Monica MtBE

groundwater remediation project; providing groundwater treatment and regulatory expertise for the Puente Valley Operable Unit; Advice on post treatment to the Monterey Regional Desalination Project; Development of water quality and treatment documents for the Woodland Davis Water Supply Project; Expert Testimony on contamination/corrosion of a liquid chlorine system at a major water treatment plant (Archer Western Contractors, Ltd. v. The City of Austin); Consulting with the Korean Water Corporation on the design of ozonation and GAC facilities for their Sungnam water treatment plant (207 mgd); Review of the design of a 30 mgd membrane filtration ozonation facility for the Clark County Reclamation District; Lead and Copper treatment for the Camp Pendleton Marine Corps Base; Participation in the DEC Review for USBR's proposed facilities for the San Luis Drain (\$2.3 billion); Report on Compliance with the Lead and Copper Rule for the San Francisco Public Utilities Department (300 mgd); evaluating Desalting for the City of Carlsbad, CA.; assisting the San Diego County Water Authority in a Design/Build/Operate effort for a 100 mgd membrane/ozonation/GAC plant; and reviewing the lead problem in Washington, D.C. for USEPA Office of Water. Dr. Trussell is available to review and advise on any complex water quality problem. He has special interest in reuse, desalting, membrane filtration, disinfection and corrosion. Dr. Trussell originated the approach of using air stripping in the remediation of groundwater in the early 1980s and was involved in the earliest designs of such systems in Southern California.

Dr. Trussell served as Member and Chair of the Water Science and Technology Board for the National Academies from 1988 to 2007 and as a member of the EPA Science Advisory Board from 1998 through 2005. He was also the Vice Chair of the NRC Committees on Indicators of Pathogens and Drinking Water Contaminant Candidates. For the International Water Association, Dr. Trussell serves as a member of the Scientific and Technical Council, and was also a member of the Program Committees for the Conventions in Berlin 2001, Melbourne 2002, Marrakech 2004, Beijing 2006, and World Congress in Vienna, 2008. Dr. Trussell is a Board Certified Environmental Engineer in the American Academy of Environmental Engineers and is a member of the Academy's Committee for Certification by Eminence. Dr. Trussell served as the Chair of the Research Advisory Committee and is now a member of the Board of Directors for the WaterReuse Foundation. He also serves on the Board of Directors of the Water Environment Research Foundation. Dr. Trussell was elected to the National Academy of Engineering in

1995, served as a member of the Academy's Peer Committee for Civil Engineers for 2001-2003, served on the selection committee for the Academy's "\$1 million" Grainger Prize for 2006-2007, on the presently on the Academy's Membership Committee (2006-2009) and on the Membership Policy Committee (2010-2012). Recently, Dr. Trussell chaired the NRC committee that wrote the 2012 report on *Potential for Expanding the Nation's Water Supply Through Reuse of Municipal Wastewater*.

EMPLOYMENT HISTORY

TRUSSELL TECHNOLOGIES, INC. PASADENA, CA (2003-Present)

Chairman, CEO and founder of the company. Technology in the water world is rapidly changing. Many in the industry see choosing among the many technical opportunities as fraught with risk. Change takes place so quickly and there are so many things going on that it's difficult to make good choices. Yet new technologies and new regulations are forcing change. Trussell Technologies seeks to be the trusted advisor that understands new technologies; how to test them, how to understand and predict their behavior, and how to reduce the risks associated with embarking on a new way of doing things.

UNIVERSITY OF CALIFORNIA, IRVINE (2003-Present)

Adjunct Professor of Environmental Health, Science, and Policy, School of Social Ecology, University of California, Irvine

MWH, INC. INTERLOCKEN, CO. (2001-2003)

Senior Vice President, Manager of Global Water Knowledge Center 2001-2002. Led Company's effort to author new textbook, *Water Treatment: Principles and Design*, published by John Wiley & Sons in 2005.

MONTGOMERY WATSON, INC. PASADENA, CA (1992-2001)

Senior Vice President, Director of Corporate Development, Board Member and Member of the firm's Executive Committee from when the firm was created in 1992 until merger with Harza in 2001. Participated in 13 mergers/acquisitions during that time.

JAMES M. MONTGOMERY CONSULTING ENGINEERS, INC. PASADENA, CA (1972-1992)

Entered as Senior engineer in Pasadena Water Department, became Vice President Head of Environmental Sciences Department, became head of Specialized Resources Group, founded both the company's laboratory and research group, became

Corporate Director of Water, became Senior Vice President and Director of Applied Technology for the firm, 1972-1991. Director of Corporate Development, charged with strategic planning and mergers and acquisitions, 1992. Member of the firm's Board of Directors 1983, 1985-1992. Member of the Firm's Executive Committee from 1985-1992.

UNIVERSITY OF CALIFORNIA (1966-1972)

Ph.D. Research: Dr. Trussell developed a methodology for making predictions in water chemistry. The method is in use in the Environmental Engineering field.

CONSULTING WHILE AT U.C. (1966-1972)

While in school, Dr. Trussell worked as a consultant with Dr. Jerome F. Thomas, the firm of Pomeroy, Johnston and Bailey, and James M. Montgomery, Consulting Engineers, Inc. Studies included internal and external corrosion of private, municipal, and industrial iron, copper and stainless steel piping; corrosion of buried iron and steel piping and other equipment; industrial water treatment; design, operation, and maintenance of cooling towers; proper operation of boilers and associated condensate return systems; the preliminary design of chlorination facilities for a large municipality; solid waste management; design of individual home waste disposal systems; demineralization; and advanced wastewater treatment.

PROJECT EXPERIENCE (Selected projects):

Cooperating Respondents (*confidential*)

Baldwin Park Operable Unit

Year: 2015-present

Trussell Technologies, Inc. is aiding the Cooperating Respondents by reviewing process performance and making recommendations for potential improvements in operations. Trussell is also reviewing design criteria and operational test plan to ensure an efficient well-balanced treatment system is being put in place.

Role: *Technical Advisor*

Geosyntec Consultants

Evaluation of Treatment Alternatives and Gaining CDPH Approval for the Puente Valley Operable Unit;

Year: 2013-2014

A treatment train is under development for removal of VOCs, perchlorate, 1,4-dioxane, as well as TDS, nitrate, and selenium for groundwater in the Puente Valley Operable Unit in the San Gabriel Valley. Trussell Technologies is providing an evaluation of the entire treatment train and contributing toward the development of a basis of design report and

preliminary design including consideration of air stripping and/or liquid phase GAC for removal of VOCs, ion exchange for the removal of perchlorate, and UV AOP for the removal of 1,4-dioxane. Trussell Technologies is supporting permitting activities under CDPH Policy Memo 97-005 for an extremely impaired groundwater source.

Role: Technical Advisor

Metropolitan Water District of Southern California
Nevada Environmental Response Trust Draft Remedial Action Plan Technical Review Focused on Perchlorate Remediation
Year: 2013

Metropolitan Water District (MWD) is a public agency of the State of California engaged in transporting, storing, and distributing water in the counties of Los Angeles, Orange, Riverside, San Diego, San Bernardino, and Ventura, within the State of California. MWD hired Trussell Tech to review and evaluate the Remedial Investigation/Feasibility Study Work Plan for the Tronox/Nevada Environmental Response Trust Site in Henderson, Nevada. The work plan is primarily concerned with the contamination of groundwater with perchlorate and hexavalent chromium as well as a lesser contamination problem associated with VOCs. Treatment technologies employed at the Site include biological fluidized bed reactors for the removal of perchlorate and hexavalent chromium.

Among Trussell Tech's scope was: Reviewing data gaps identified in the Remedial Investigation / Feasibility Study Work Plan and recommendations for addressing these identified data gaps for adequacy and/or omissions; review identified ARARs and RAOs for completeness and their appropriateness for screening alternative remedial technologies; Groundwater Treatment System Operations: review of current system and operations in regards to operating efficiency and potential for long-term cost savings / cost reduction strategies; Technologies and Process Options: review all the initial and secondary screening of technologies and process options presented in the RI/FS WP for adequacy and/or omissions; preliminary Remedial Action Alternatives: review to identify whether the potential for combining alternatives or using different alternatives for sub-areas (Operable Units) of the facility was adequately addressed.

The review considered potential future, more-stringent drinking water standards (such as perchlorate and hexavalent chromium) when assessing the remedial technologies and process options including navigating the potential for changes to CDPH regulations in California. Additionally, the capabilities of existing

remediation systems to meet more-stringent standards were evaluated.

Role: Technical Advisor

Los Angeles Superior Court

Title: Appraiser, LASC Case No. BC 315186 City of Santa Monica v. Baron & Budd P.C. et al.

Date: 2005 - 2007

Dr. Trussell was appointed by Superior Court Judge David Minning as the Appraiser in a suit between Santa Monica and a group of attorneys that had represented the City in an earlier suit. The Appraiser's assignment was to determine the value of the Settlement in that earlier suit. The Appraisal involved estimating the cost to design, permit, build and operate a water treatment plant to remove methyl tertiary butyl ether and tertiary butyl alcohol from groundwater until the groundwater was no longer contaminated. The project involved the 10% design of a \$60M UV/H₂O₂ advanced oxidation facility followed by GAC adsorption. Dr. Trussell organized an extensive team of outside consultants to accomplish the effort.

Role: The Appraiser

Aerojet General

Title: GET/E/F Treatment Study on Perchlorate Removal

Date: 2001-2002

Aerojet ran a three-year study developing and testing a biological process for Perchlorate Removal at pilot and full-scale. Dr. Trussell served as a member of a Blue Ribbon Panel that reviewed the progress of the study

Role: Expert Panel

Sociedad Quimica y Minera North America

Title: Expert Rebuttal in Pomona Perchlorate Litigation
Date: 2011

When the Bureau of Reclamation committed to build aqueducts to serve farms in the San Joaquin Valley, it also committed to construct a drain to remove salt-laden agricultural runoff. The so called "San Joaquin Drain" ran into serious environmental opposition and was never completed. Nevertheless, the courts maintained that the USBR continued to have the responsibility to provide for disposal of the agricultural drainage. To resolve the issue, the Bureau has undertaken an extensive program of treatment research. Trussell Technologies has been retained to review the output from that program.

Role: Expert Advisor

Bureau of Reclamation

Title: Review of Bureau Plans for a System to Treat
Agricultural Runoff

Date: 2005 - 2006

When the Bureau of Reclamation committed to build aqueducts to serve farms in the San Joaquin Valley, it also committed to construct a drain to remove salt-laden agricultural runoff. The so called "San Joaquin Drain" ran into serious environmental opposition and was never completed. Nevertheless, the courts maintained that the USBR continued to have the responsibility to provide for disposal of the agricultural drainage. To resolve the issue, the Bureau has undertaken an extensive program of treatment research. Trussell Technologies has been retained to review the output from that program.

Role: *Project Manager*



SEP

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City Clerk's Office

100.000P

September 29, 2015

City of Banning
City Clerk's Office
99 East Ramsey Street
P.O. Box 998
Banning CA 92220

**SUBJECT: CHROMIUM-6 TREATMENT AND COMPLIANCE STUDY
ENGINEERING SERVICES PROPOSAL**

Gentlemen:

Engineering Resources of Southern California, Inc. (ERSC), submits this letter and the accompanying proposal as confirmation of our interest in being considered to conduct the City's Chromium-6 Treatment and Compliance Study. Due date for the proposal is September 29, 2015.

Key personnel of *ERSC* to be involved in conduct of the work will be the following:

Principal-in-Charge and Vice President - Ronald Worthington, P.E.
Project Manager/Principal Engineer - John G. Egan, P.E., BCEE

Address for both personnel is the company's San Bernardino's office, that is, 1820 Commercenter Circle, San Bernardino, CA 92408, telephone number 909/890-1255.

Accompanying this letter is our formal proposal and in a separate, sealed envelope, our fee proposal.

Very truly yours,

Ronald Worthington
Ronald Worthington, P.E.
Vice President

RW:ma

S:\10000000 Proposals\City of Banning\proposal ltr.wpd



100,000P

September 29, 2015

City of Banning
City Clerk's Office
99 East Ramsey Street
P.O. Box 998
Banning CA 92220

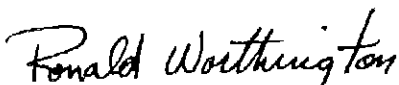
**SUBJECT: CHROMIUM-6 TREATMENT AND COMPLIANCE STUDY
ENGINEERING FEE PROPOSAL**

Gentlemen:

Engineering Resources of Southern California, Inc. (ERSC), proposes to complete the requested Chromium-6 Treatment and Compliance Study for the City of Banning, scope as set forth in the City's Request for Proposal and as described in our accompanying proposal for a not-to-exceed amount of \$71,000. Derivation of this fee by task and subtask is displayed on the accompanying spreadsheet. This amount includes all printing, reproduction costs, mileage, and telephone expenses.

Also enclosed with this letter is a copy of *ERSC's* current Schedule of Hourly Billing Rates including classification of personnel. Fee proposal(s) and hourly rate schedules for our two subconsultants are also enclosed.

Very truly yours,


Ronald Worthington, P.E.
Vice President

RW:ma

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ENGINEERING RESOURCES OF SOUTHERN CALIFORNIA, INC.

DESIGN COST ESTIMATE - CITY OF BANNING
CHROMIUM-6 TREATMENT AND COMPLIANCE STUDY

JOB NUMBER: 10000.00

TASK NO.	TASK DESCRIPTION	STAFF CLASSIFICATION						ERSC LABOR	DIRECT EXP's	SUBS.	SUB TASK TOTAL	TASK TOTAL	PHASE TOTAL
		SPE	PM/PE	E III	SET	ET II	AS						
		\$165.00	\$165.00	\$105.00	\$115.00	\$95.00	\$65.00						
TASK 1	PROJECT MANAGEMENT, COMMUNICATION, & MEETINGS	10	50				24	\$10,960			\$10,960	\$10,960	\$71,036
TASK 2	DATA COLLECTION & PRE-STUDY		30		16			\$6,490		\$8,000	\$14,490	\$14,490	
TASK 3	EVALUATE TREATMENT ALTERNATIVES												
	a. Treatment Analyses	4	16					\$3,140		\$7,000	\$10,140		\$31,636
	b. System Operation & Analysis	4	24					\$4,380		\$6,000	\$10,380		
	c. Infrastructure Site Analysis		20					\$3,100			\$3,100		
	d. Cost Analysis	2	6	12	12			\$3,900			\$3,900		
	e. Facilities Schematic		12	16		24		\$4,116			\$4,116		
TASK 4	PREPARE CHROMIUM-6 TREATMENT & COMPLIANCE STUDY REPORT; MTGS	6	42		6	24	12	\$11,250		\$2,700	\$13,950	\$13,950	
	PROJECT TOTALS	26	200	28	34	48	36	\$47,336	\$0	\$23,700	\$71,036	\$71,036	\$71,036

TOTAL ERSC HOURS 372

PERCENTAGES 7 54

SCHEDULE OF *HOURLY BILLING RATES*

(EFFECTIVE JANUARY 1, 2013)

PRINCIPAL/PRESIDENT	\$185.00	PRINCIPAL PLANNER	\$130.00
PRINCIPAL/VICE PRESIDENT	175.00	SENIOR PLANNER	110.00
SENIOR PRINCIPAL ENGINEER	165.00		
PRINCIPAL ENGINEER	155.00		
ENGINEER V	130.00	ADMINISTRATIVE SERVS. MANAGER	\$ 75.00
ENGINEER IV	110.00	EXECUTIVE SECRETARY	65.00
ENGINEER III	105.00	SECRETARY	55.00
ENGINEER II	90.00		
ENGINEER I	75.00		
SENIOR ENGINEERING TECHNICIAN	\$115.00	ENGINEERING AIDE II	\$ 45.00
ENGINEERING TECHNICIAN II	95.00	ENGINEERING AIDE I	35.00
ENGINEERING TECHNICIAN I	75.00		
ENGINEERING TECHNICIAN	55.00		

CONSTRUCTION MANAGER	2.6 X DIRECT SALARY
RESIDENT ENGINEER	2.6 X DIRECT SALARY
SENIOR INSPECTOR	2.6 X DIRECT SALARY
INSPECTOR	2.6 X DIRECT SALARY

MILEAGE	\$0.65/MILE
DIRECT COST	COST + 20%

TESTIMONY UNDER OATH WILL BE BILLED AT \$350 PER HOUR
WITH A FOUR (4) HOUR MINIMUM



September 25, 2015

Mr. John Egan
Engineering Resources of Southern California
1820 Commercenter Circle
San Bernardino, California 92408

Re: Proposed Scope of Work and Cost Estimate to Provide a Technical Review and Recommendations for the Use of Dynamic Flow Profiling to Assess Hexavalent Chromium in City of Banning Wells

Dear Mr. Egan,

Per your request, this letter outlines my proposed scope of work and cost estimate to provide a technical review and recommendations for the use of Dynamic Flow Profiling as a method to assess depth-specific hexavalent chromium concentrations in City of Banning (City) wells. This work supports a larger hexavalent chromium treatment and compliance study, as outlined in the City's request for proposals dated September 2015.

My scope of work would include the following:

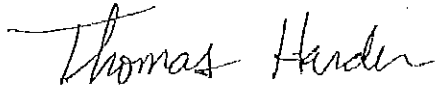
- Phone correspondence and coordination with Engineering Resources of Southern California (ERSC) to obtain well completion details and supporting data, reports and information for the City's wells (assume eight wells as shown on the City's map of wells of interest).
- Review of technical information and studies regarding Dynamic Flow Profiling for use in characterizing the vertical distribution of water quality constituents in wells.
- Preparation of a Technical Memorandum that summarizes my findings and recommendations with respect to the technical review. The recommendations will include alternative evaluation methods, if appropriate.
- Attendance at one meeting in the Banning, California area.

My proposed cost estimate to conduct the above scope of work is \$10,000. My scope of work and budget does not include a visit to the well sites or field data collection. Attached with this letter is my schedule of billing rates.

Thomas Harder & Co.
1260 N. Hancock St., Suite 109
Anaheim, California 92807
(714) 779-3875

I appreciate the opportunity to provide consulting services to ERSC. If you have any questions, don't hesitate to contact me at (714) 779-3875.

Sincerely,

A handwritten signature in cursive script that reads "Thomas Harder".

Thomas Harder, P.G., C.H.G.
Principal Hydrogeologist



<u>Staff</u>	<u>Hourly Rate</u>
Principal Hydrogeologist	\$170
Project Hydrogeologist	\$110
Staff Hydrogeologist	\$90
Field Technician	\$70
Graphics	\$85
Clerical	\$65

For public hearings and court appearances requiring qualifications and services as expert witness and for assistance to attorneys during course of such hearings and depositions, the Principal Hydrogeologist will be billed at the hourly rate of \$340/hr, plus travel expenses and subsistence as described below. Billing for depositions, court appearances, and administrative hearings will include an 8-hr minimum.

Travel mileage for personal vehicles will be charged at the rate of 55 cents/mile.

Subsistence expenses, including food and lodging, will be reimbursed at the actual cost.





TRUSSELL TECHNOLOGIES, INC.

HOURLY BILLING RATES

Effective: July 14, 2015

Position	Billing Rate		Personnel
	Normal Hourly Rate ¹	Expert Daily Rate ²	
Senior Company Officer	\$ 295	\$ 3,540	R. Rhodes Trussell, Ph.D., P.E.
Principal Engineer III	\$ 236	\$ 2,832	R. Shane Trussell, Ph.D., P.E.
Principal Engineer II	\$ 220	\$ 2,640	Céline Trussell, P.E., David R. Hokanson, Ph.D., P.E.
Principal Engineer I	\$ 202	\$ 2,424	Gordon Williams, Ph.D., P.E., Bill McGivney
Supervising Engineer III	\$ 190	-	Bryan Trussell, P.E., Fred Gerringer, D.Env., P.E.
Supervising Engineer II	\$ 179	-	Brian Pecson, Ph.D., P.E., Elaine Howe, P.E. (NM)
Supervising Engineer I	\$ 165	-	Sangam Tiwari, Ph.D., P.E., Eileen Idica, Ph.D., P.E.
Senior Engineer III	\$ 152	-	Aleks Pisarenko, Ph.D.
Senior Engineer II	\$ 142	-	Emily Owens-Bennett, P.E., Teresa Venezia; Yan Qu, Ph.D., E.I.T.; Casey Larsen
Senior Engineer I	\$ 130	-	
Engineer II	\$ 120	-	Greg Stanczak; John Kenny, P.E.; Leila Munla, Ph.D.
Engineer I	\$ 112	-	Brett Faulkner
Associate Engineer II Senior Office Manager I	\$ 104	-	Briann Webber, Elise Chen, Liz Kubiak, Israel Monroy, Pranjali Kumar
Associate Engineer I Office Manager III	\$ 97	-	Aviv Kolakovsky
Assistant Engineer II Office Manager II	\$ 89	-	
Assistant Engineer I Office Manager I	\$ 83	-	Claire DiGenti, Rodrigo Tackaert, Chao- Chun Yang, Anya Kaumann
Office / Lab Assistant II	\$ 77	-	
Office / Lab Assistant I	\$ 72	-	Maria Kubiak, Joy DiGenti

1. Time will be billed in 15 minute increments

2. Time will be billed in increments of one day

Other Direct Costs

Mileage for vehicle use to be reimbursed at current IRS rate.

Travel, equipment rental and other direct costs to be reimbursed at actual cost plus five percent.

Outside Professional Services:

Outside professional services to be reimbursed at actual cost plus fifteen percent.

City of Banning

Proposal for Chromium 6 Treatment and Compliance Study

September 28, 2015



September 28, 2015

Art Vela
City of Banning
99 E. Ramsey Street
P.O. Box 998
Banning, CA 92220

City Clerk's Office

Re: Proposal for Chromium 6 Treatment and Compliance Study

Dear Mr. Vela,

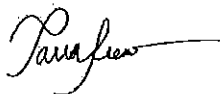
Corona Environmental Consulting, LLC (Corona) is pleased to submit this proposal to the City of Banning (City) to support the evaluation of hexavalent chromium [Cr(VI)] mitigation options at impacted groundwater well sites. Members of our staff, including Tarrah Henrie, Chad Seidel, Ph.D., P.E., and Craig Gorman, P.E., have recently conducted similar efforts for the California American Water Company, California Water Service, Soquel Creek Water District and the City of Watsonville. ACE Engineering, led by Jennifer Aieta, will provide support as a sub-consultant to complete the conceptual site layouts.

In some locations, well modification can be a cost effective compliance strategy. Corona will be partnering with Wood Rodgers for the well modification evaluation. Larry Ernst and Russell Kyle, who are both Hydrogeologists with Wood Rodgers, and who hold the distinction of having the combined working experience of more than 300 municipal and industrial water supply wells. Most recently Mr. Kyle has been evaluating the option of well modification for the community of Indio as a means of utilizing wells which exhibit Cr(VI) concentrations near the MCL and in areas not suitable for centralized treatment. This work included extended time-series testing to rule-out aquifer cross-flow, followed by dynamic mass profiling, and variable flow testing to evaluate flow profile modification.

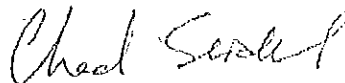
Although our staff has extensive experience with Cr(VI) treatment, we also understand the value of the non-treatment options, particularly in a water system with multiple sources. We will provide the City with a holistic evaluation of the Cr(VI) mitigation strategies and costs.

We look forward to serving the City on this critical project. Please do not hesitate to contact Tarrah Henrie (Cell: 510.579.9174; email: thenrie@coronaenv.com) if you should have any questions or wish to discuss this proposal further.

Very truly yours,



Tarrah Henrie,
Water Process Scientist
Corona Environmental Consulting, LLC



Chad Seidel, Ph.D., P.E.
Vice President
Corona Environmental Consulting, LLC

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Section 1: Project Overview

We understand that the City of Banning (City) is seeking consulting services from firms experienced with evaluating both treatment and non-treatment hexavalent chromium [Cr(VI)] compliance options while considering the City's long term supply needs. According to information provided by the City, seven of the City's 24 active wells have historical Cr(VI) concentrations above 10 µg/L.

Our proven approach for assisting utilities develop Cr(VI) compliance strategies is straight forward. First identify what sources are necessary to maintain supply and then identify which Cr(VI) impacted supplies are critical to maintain supply (e.g. requisite water supply conditions to meet maximum day demand (MDD) requirements according to California Waterworks Standards or essential for other operational purposes).

For those Cr(VI) impacted wells that must remain in long term service, we will then review site conditions and assess applicability and efficiency of both treatment and non-treatment Cr(VI) compliance strategies. Once the water supply and treatment strategy is defined, the City can be confident moving forward with design and implementation, knowing they are proceeding with the most cost effective and sustainable, long term implementation plan. Our recommended project approach to address the City's Cr(VI) compliance needs is described by task, in subsequent sections. This approach responds to the City's RFP scope of work outline and updates it based upon our relevant experience. However, before discussing the detailed work plan, we believe it is important to provide context of the historical water quality of the Cr(VI) impacted wells with a description of the wells, and provide an overview of the compliance strategies that will be considered.

Water Quality Review

Understanding background water quality is critical for determining the most appropriate Cr(VI) compliance strategy. Our team has examined the water quality values listed in the State Water Resource Control Board (SWRCB) Division of Drinking Water (DDW) Water Quality Analysis Database to bolster information provided in the RFP for water quality parameters that can impact Cr(VI) compliance strategies. A summary of the pertinent water quality parameters is provided in Table 1. The impacts of these constituents with respect to the chromium compliance alternatives are described below.

Table 1. Average water quality of groundwater wells

Source name	Cr(VI) (µg/L)	Nitrate (mg/L)	Sulfate (mg/L)	Alkalinity (mg/L)
Well C-02A	17	8	9	160
Well C-03	16	7	7	130
Well C-04	13	6	10	154
Well C-06	12	7	14	130
Well M-10	11	10	3	110
Well M-11	13	4	15	130
Well M-12	23	7	6	126

In addition to those water quality parameters shown in Table 1, historical results for iron and manganese were also reviewed. For many of the wells in question, there appear to be intermittent results showing elevated iron concentrations. Often results such as these can be attributed to particulate iron from the well casing; however it is recommended that the nature of the iron be confirmed prior to proceeding with the alternatives analysis as the presence of dissolved iron adversely impacts the performance of some of the treatment technologies that will be evaluated.

Cr(VI) Compliance Strategies

In general, Cr(VI) compliance alternatives can be grouped in two primary categories: non-treatment and treatment. Non-treatment compliance strategies include source destruction, source status change, source modification, and blending, while treatment strategies include strong base anion exchange (SBA-IX), weak base anion exchange (WBA-IX) and reduction coagulation filtration (RCF).

Non-Treatment Compliance Strategies

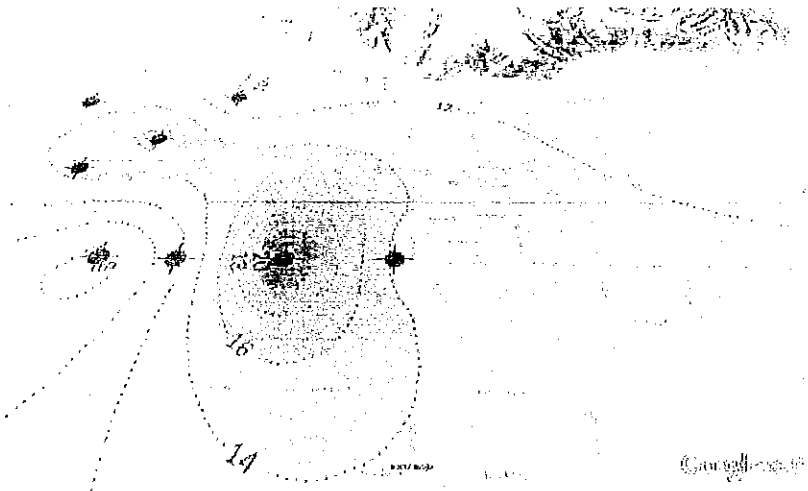
Source Modification

Modification of impacted source wells by limiting screened intervals to regions of better water quality may allow for withdrawal of water with lower Cr(VI) levels. Our team's hydrogeologic experts, from Wood Rodgers, will investigate each of the Cr(VI) impacted wells to determine if they are candidates for well modification. Well modification programs could include any of the following:

- Changing the pumping capacity
- Installing packers on pump columns to eliminate upper aquifers
- Placing casing patches over casing holes or sections of well screen
- Installing well liners in conjunction with placing cement seals against upper aquifers
- Well plug back (however not likely because Cr(VI) is thought to decrease with depth)

The primary drawbacks of well modification is that it is generally associated with the loss of production capacity, which may not be acceptable for the City. Further, while well modification can often provide immediate results, there is no guarantee against changing water quality, especially in the face of drought and declining water levels. Figure 1 shows March 2015 Cr(VI) contours for City of Banning wells within the Beaumont and Banning Storage Units. Although preliminary, the configuration of the contours suggest that the greatest Cr(VI) concentrations are coincident with the course of Smith Creek, perhaps due to the dissolution and transportation of chromium-rich mafic minerals from the San Bernardino Mountains to the north, and/or the predomination of Cr(VI) in highly oxygenated environments.

Figure 1. Chromium (VI) contour map of the City's impacted wells.



Source Status Change or Source Destruction

With adequate capacity from other sources, the simplest option for management of Cr(VI) sources is well destruction. However, the lack of sufficient alternative water supplies often rules out well destruction as an option. Groundwater wells that are over the Cr(VI) MCL can be placed into stand-by status with DDW. This allows the wells to be used for up to five consecutive days, and a maximum of fifteen days per year during an emergency.

As part of this project we will evaluate production history of the impacted wells, as well as those within the same services areas to determine if specific Cr(VI) impacted sources simply can be destroyed or placed in stand-by status.

Blending

The dilution of a Cr(VI) impacted source with an alternate low Cr(VI) concentration source – blending – can, in certain cases, be a cost effective option to produce compliant potable water. Blending can be applied without or with treatment. Blending relies on the availability of another low Cr(VI) concentration source and the consistency of Cr(VI) levels in both supplies to avoid MCL violations. That said, a drawback of implementing blending to address Cr(VI) contamination is the loss of operational flexibility. The low Cr(VI) source must be dedicated to operate with the high Cr(VI) source tying up two sources for a single supply. Our team will evaluate the City's sources that are in close proximity to the Cr(VI) impacted wells to determine the feasibility of blending as a compliance strategy. If a current calibrated hydraulic model is available it will be evaluated to determine the extent of distribution system upgrades that will be necessary. The cost and operational impacts of blending will be weighed against those of the other Cr(VI) treatment strategies.

Treatment Compliance Strategies

Currently, there are three accepted Cr(VI) treatment technologies that can reliably be considered for full-scale implementation:

- Weak Base Anion Exchange (WBA-IX);

- Reduction Coagulation Filtration (RCF); and
- Strong Base Anion Exchange (SBA-IX).

As requested by the City reverse osmosis and biological treatment will also be evaluated. These treatment options may be relevant depending on other co-occurring contaminants in the impacted wells. For each treatment technology there will be an evaluation of the following:

- Pre-treatment and post-treatment requirements
- Constituent removal effectiveness
- Residuals management

A description of each of these technologies is provided below.

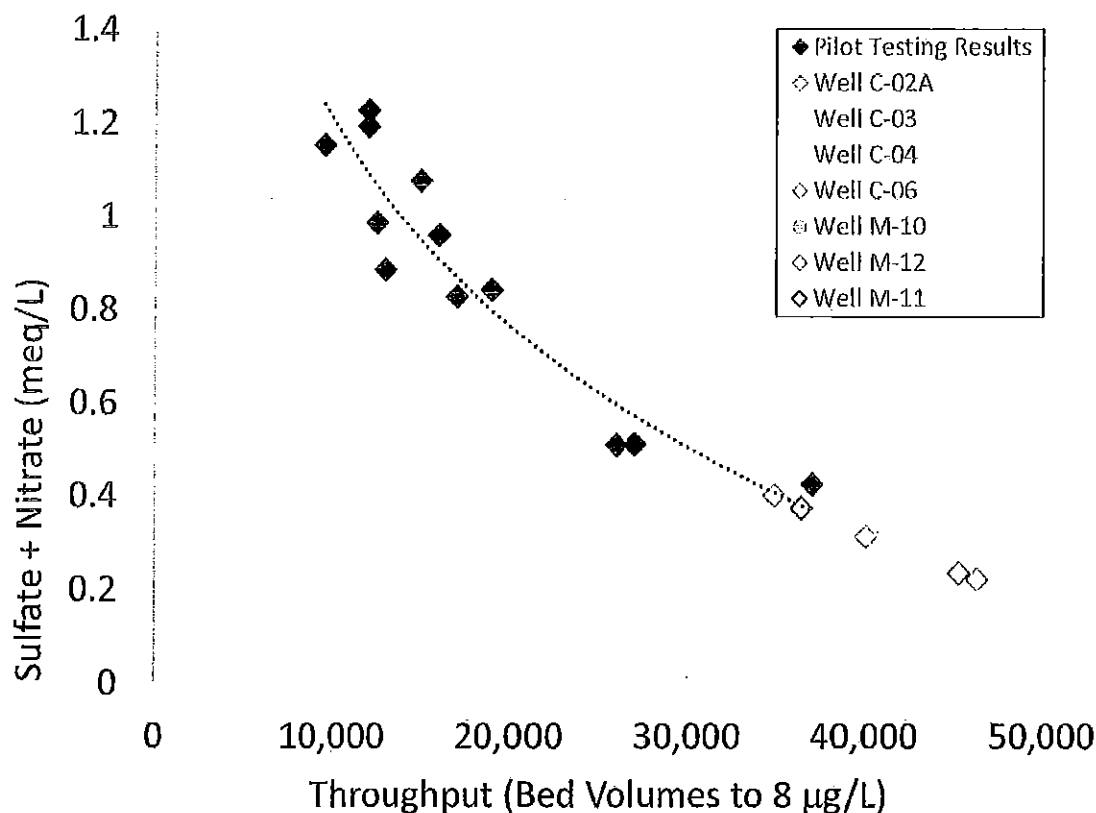
Strong Base Anion Exchange.

To date, the majority of Cr(VI) treatment installations have been SBA-IX systems. Our team's previous Cr(VI) compliance management studies have identified SBA-IX as the most appropriate technology for water utilities, including the Soquel Creek Water District, California Water Service and California American Water. These utilities along with others state-wide are in the process of implementing full-scale treatment facilities.

SBA-IX has been researched and applied extensively including demonstration of Cr(VI) treatment goals down to 1 µg/L. SBA-IX for Cr(VI) removal can operate in a regenerable or non-regenerable mode. In regenerable mode, the resin is regenerated with a brine solution, typically sodium chloride (NaCl), to restore the exchange capacity. In non-regenerable mode, spent resin is removed and disposed and replaced with new resin. The feasibility and cost effectiveness of regenerable versus non-regenerable SBA-IX depends on site-specific water quality and corresponding treatment efficiency.

Based upon our experience with pilot testing SBA-IX treatment for other Cr(VI) impacted wells in Northern California, we have identified that background sulfate and nitrate concentrations drive SBA-IX treatment performance. Figure 2 shows the predicted SBA-IX performance for each of the City's wells based on the historical nitrate and sulfate concentrations.

Figure 2. Predicted SBA-IX performance for the City's wells.



As seen in Figure 2, the City's wells are ideally suited for SBA-IX treatment with each well predicted to achieve at minimum of 34,000 bed volumes (BV) of treatment and in some instances, more than 45,000 BV prior to reaching an 8 µg/L treatment threshold, which is better than any other well with pilot data to date. To put this in perspective, 40,000 BV of treatment with an empty bed contact time of 3 minutes is equivalent to continuous operation of the treatment system for more than 80 consecutive days without the need to regenerate or replace the resin.

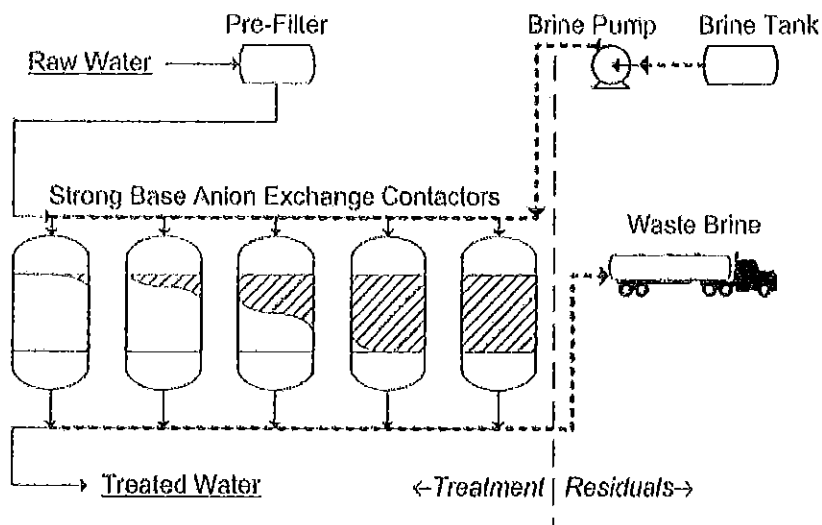
Regenerable SBA-IX

A typical regenerable SBA-IX treatment system comprised of a pre-filter, pressure vessels or contactors, and regeneration equipment including a brine tank and pumps is presented in Figure 3. Typical regenerable SBA-IX treatment systems utilize multiple contactors operated in a staggered sequence. As depicted in Figure 3, each contactor is progressively loaded with the contaminant of concern, in this case Cr(VI). Operating in a staggered sequence allows the system to efficiently achieve target water quality conditions.

Sodium chloride (NaCl), typically greater than 10% solution strength, is used to regenerate the spent resin. The regeneration process produces a high-strength liquid waste brine containing the removed

contaminants. For Cr(VI) treatment, the waste brine will contain greater than 5 mg/L Cr(VI) which classifies it as a RCRA liquid hazardous waste requiring appropriate off-site liquid waste disposal.

Figure 3. Regenerable SBA-IX treatment schematic

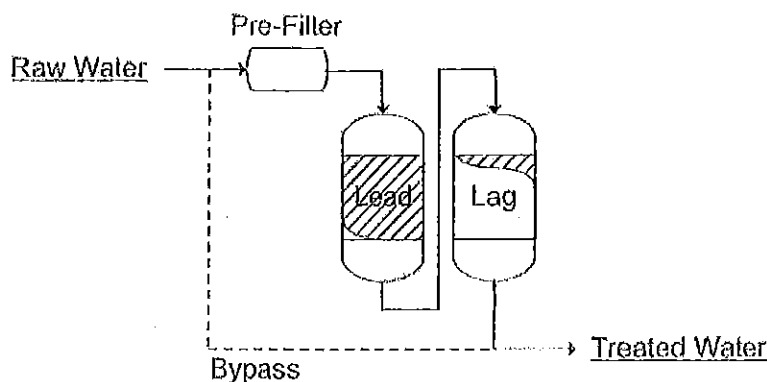


Non-regenerable SBA-IX

SBA-IX can be operated in a non-regenerable mode where exhausted ion exchange resin is removed from the pressure vessels and replaced with virgin resin, rather than regenerating it and producing a RCRA hazardous liquid waste. Spent non-regenerable resin is characterized and then sent to an appropriate waste receiving facility. Limited research to date has indicated that this type of spent resin may be characterized as a non-hazardous solid waste. This approach can be cost competitive for Cr(VI) treatment in cases where the resin achieves long run length prior to Cr(VI) treatment exhaustion and relatively low levels of Cr(VI) removal are required for achieving compliance.

Figure 4 presents a typical non-regenerable SBA-IX treatment system comprised of a pre-filter, lead-lag pressure vessels or contactors, and an optional bypass. The non-regenerable SBA-IX process is simplified by avoiding the need for regeneration equipment and chemicals, leading to lower capital costs and smaller required footprint for treatment. Spent resin must be characterized and, depending on source water quality conditions and accumulated contaminants, disposed of as a non-hazardous or non-RCRA California hazardous solid waste.

Figure 4. Non-regenerable SBA-IX lead-lag treatment schematic with optional bypass

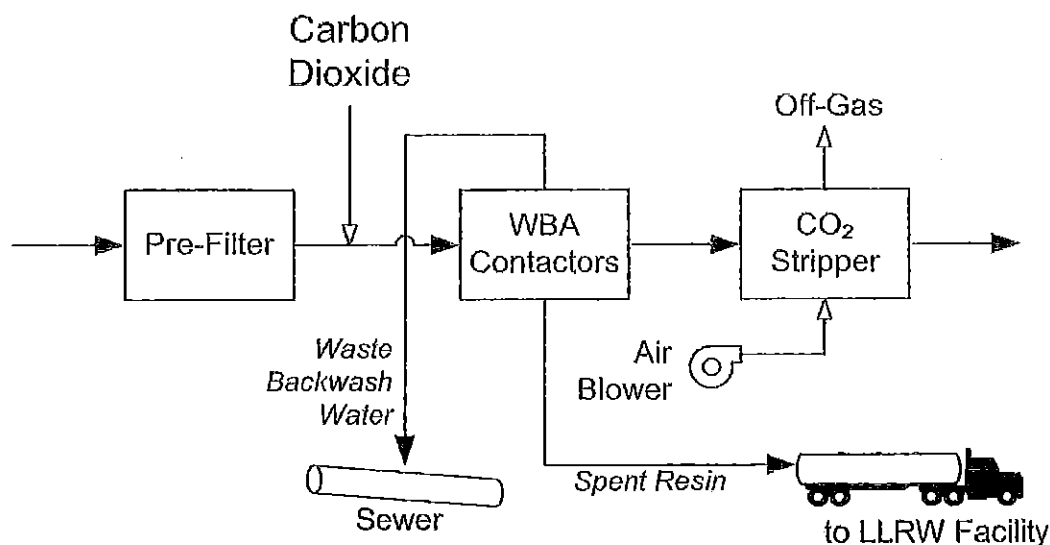


As depicted in Figure 4, non-regenerable SBA-IX would be operated in a lead-lag configuration where the lead vessel would be operated to exhaustion and the lag vessel serves as a “polishing vessel” resulting in low treated water Cr(VI) concentration (i.e. $< 2 \mu\text{g/L}$). This, coupled with the relatively low levels of Cr(VI) that need to be removed from each of the City’s wells, presents an opportunity for system bypass reducing footprint and capital and operational costs.

Weak Base Anion Exchange

WBA-IX has emerged as an attractive, simple to operate, Cr(VI) treatment technology to achieve treatment goals as low as $2 \mu\text{g/L}$ or below. A typical WBA-IX system consists of pressure vessels, loaded with WBA-IX resin, oriented in a lead/lag configuration. A schematic of the WBA-IX process is provided in Figure 5. The WBA-IX resin is operated as a single use resin that would be disposed of as a hazardous waste in California after its exchange capacity has been exhausted. In addition to removing Cr(VI), WBA also removes other inorganic elements including copper, vanadium, and uranium. Depending on the uranium concentrations in the raw water and the treated water goal, the spent WBA resin residuals may be classified as radioactive or hazardous waste, requiring processing and more expensive disposal options.

Figure 5. WBA-IX treatment schematic



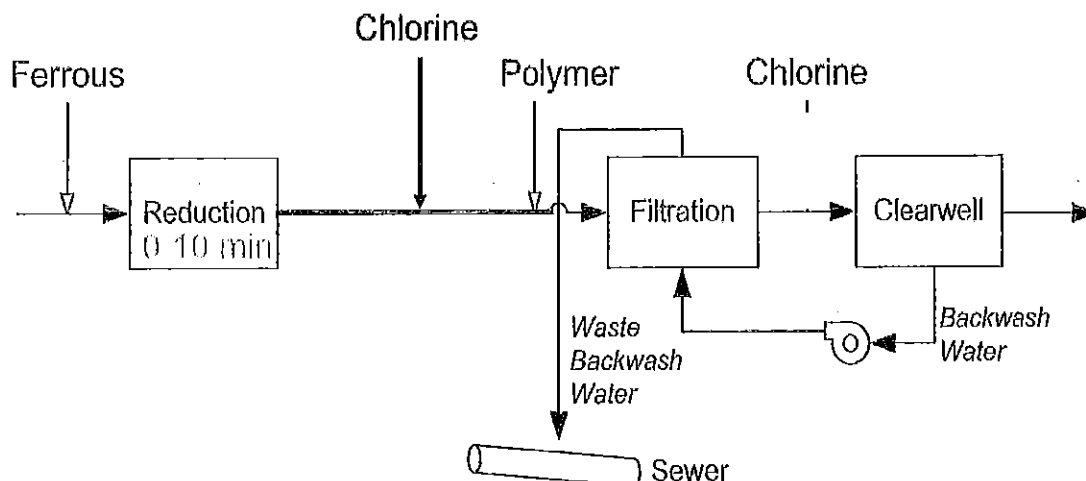
WBA-IX requires depressed treatment pH conditions to approximately pH 6.0 for efficient Cr(VI) removal. Post-treatment pH adjustment, typically with caustic (NaOH), to a higher pH is then necessary to avoid corrosion of pipe materials in the distribution system. Historically, hydrochloric acid (HCl) has been used for WBA-IX pH reduction to eliminate the potential interference from sulfate if sulfuric acid were to be used. That said, recent research suggests that the use of sulfuric acid may not have adverse impacts.

Reduction Coagulation Filtration

The RCF process achieves removal of Cr(VI) by reduction to trivalent chromium with ferrous iron. The reduction process is then followed by chlorination to oxidize any residual ferrous iron to ferric iron, coagulation, and filtration of the chromium laden particulate matter. RCF has long been used in industrial treatment and has been demonstrated to be an effective technology in drinking water applications. Recently, our team has successfully designed and implemented the first of its kind full-scale RCF system that was modified from an existing iron and manganese greensand filtration unit. Through pilot testing as a part of the project, we identified that the reduction time, historically thought to require as long as 45 minutes could be reduced to less than five minutes and potentially less than one minute may be adequate. This process advancement results in treatment systems of reduced size and capital costs than previously thought and makes the RCF technology an attractive solution, especially for systems with access to sewer disposal for the backwash water.

The oxidation step can include either aeration or chlorine addition which are both effective at oxidizing the ferrous to ferric iron. Coagulation is followed by media or membrane filtration to remove the ferric and chromium hydroxide particles. The RCF process is shown schematically in Figure 6.

Figure 6. RCF treatment schematic



Both media filtration and membrane separation require periodic backwashing to expel trapped particulate from the filter. Residual processing facilities, including backwash recovery tanks and solids processing equipment can be utilized to increase the water efficiency and reduce the volume of residuals for disposal. Some of the non-water quality cost drivers for RCF are land availability, sewer discharge access and system hydraulics. RCF generally requires a larger footprint than ion exchange facilities if solids handling is required.

In terms of process and costs, RCF is thought to be similar to conventional arsenic coagulation filtration facilities with the added cost of adding the required reduction time. As with arsenic coagulation filtration, if direct wastewater discharge of the spent backwash containing ferric and chromium particles is acceptable, it can be a cost competitive technology. As noted above the Water Quality Database suggests several of the Cr(VI) impacted wells have elevated iron concentrations. If these sources do indeed have co-occurring iron, they will likely lend themselves to the RCF process.

Section 2: Detailed Work Plan

As detailed in the subsequent sections, our team has conducted several similar studies for Cr(VI) impacted communities. We will draw on this experience to provide the City with what we believe is the most streamlined approach to resolving Cr(VI) compliance challenges. Through these past and ongoing efforts we have also developed valuable tools including predictive water quality based performance models and cost models developed from recent bid results of Cr(VI) treatment facilities. Our experience coupled with our approach and in-house resources will allow us efficiently develop a Cr(VI) compliance strategy that meets the City's expectations. Our detailed work plan is provided by task below.

Task 0 Project Management

Routine communication is key in assuring the recommended compliance strategy takes into account all of the City's requirements. To facilitate this communication, we propose Task 0 Project Management is

included as part of the overall effort. We will hold monthly calls (estimated 1 hour) with City management and operations staff to assure routine communication. Meeting minutes will be prepared, and submitted to the City within 5 working days. Additional calls will be held to support the presentation of the report materials to the City Council, as requested in the RFP. A project schedule will be submitted in Excel format, and updated monthly.

Task 1 Hexavalent Chromium Alternatives Analysis and Conceptual Plan

Our team will collaborate with City staff to develop a well-defined Cr(VI) alternatives analysis by assessing the City's overall water supply needs. Once the question of supply is answered we will assist the City to determine the most cost effective long-term solution while considering both non-treatment and treatment based approaches. The following sub-tasks will be conducted as part of Task 1.

Task 1.1 Project Workshop and Well Site Visits

Task 1 will begin with a workshop at the City office to:

- Understand the existing supplies and water system operation
- Present a high-level overview of Cr(VI) regulatory drivers, occurrence, and compliance alternatives including discussion of non-treatment options and treatment residuals management and disposal options;
- Review the initially provided information;
- Discuss City expectations and preferences; and
- Visit each of the well site with Cr(VI) compliance challenges.

We anticipate City staff will attend this workshop from engineering, operations, water quality, and other departments that may have a role in implementing and operating Cr(VI) treatment at impacted well sites. Following the workshop we will conduct site visits of each of the Cr(VI) impacted sites.

Task 1.2 Confirmation of Water Supply Needs

This subtask will confirm water supply needs (e.g. requisite water supply conditions to meet maximum day demand (MDD) requirements according to California Waterworks Standards) and if Cr(VI) impacted wells must remain in long term service. For those Cr(VI) impacted wells that must remain in long term service, we will review site conditions and assess applicability and treatment efficiency of the Cr(VI) compliance assessment.

Task 1.3 Cr(VI) Compliance Assessment

Once the locations requiring Cr(VI) mitigation are identified through Task 1.2, we will review site conditions and assess applicability and efficiency of the Cr(VI) compliance alternatives.

The non-treatment options of well status change, blending and well modification will be evaluated. Wood Rodgers will conduct a paper based evaluation of well modification options, and make recommendations for next steps, if there are any wells that are good candidates for well modification.

We will consider the most promising treatment approaches with respect to the following:

- Capital, operations and maintenance, and lifecycle costs,
- Treatment performance and efficiency,

- Pretreatment and post treatment requirements,
- Operational complexity and maturity,
- Protection against changing water quality,
- Brine treatment alternatives including biological, electrochemical, adsorption, chemical precipitation and membrane, if SBA-IX is the recommended solution,
- Residuals quantity and quality and associated disposal alternatives, and
- Permitting considerations.

Our team will request and review additional relevant information to assess which compliance alternatives are best suited for the City. We will consider a range of potential operational scenarios including raw and treated water blending strategies between wells. For each well where treatment is deemed necessary, required treatment footprints will be estimated and compared with available space. Cr(VI) treatment lifecycle costs will be refined based on recent equipment manufacturer cost estimates and operational costs that reflect all current developments for Cr(VI) treatment and residual management strategies. To facilitate this assessment, the City may be asked to share the following information:

1. Well logs and sizing
2. Maps and piping schematics
3. Sewer access and discharge requirements
4. Current calibrated hydraulic model
5. Water supply historical data and future requirements
6. Existing treatment system details
7. 5 years of comprehensive water quality information (flat file format)

Based upon the outcomes of this task, we will recommend the most appropriate Cr(VI) compliance alternative will be recommended for further consideration. Conceptual site layouts will be developed for each site that is recommended for treatment.

Depending on the selected Cr(VI) treatment alternative the infrastructure improvement needs may vary. As part of this project our team will consider the existing infrastructure with respect its impact on treatment feasibility and costs. Items that will be considered include, but are not limited to, sewer access, proximity to other water supplies for centralized treatment or blending, and available land at the existing well sites for treatment. Once the appropriate Cr(VI) treatment technology is selected, our team will identify gaps in the City's existing information to be reconciled during preliminary design.

Task 1.4 Recommendation Workshop

The outcomes of the above subtasks will be summarized in Draft Report format and presented to the City with recommendations and next steps in a workshop to be held at the City's offices. The Final Report will be issued within two weeks of receiving any comments from the City that resulted from the Recommendation Workshop.

Section 3: Project Team

As a small firm, Corona maintains our ability to be nimble and responsive to our client's needs. As such, our proposed organizational chart for this project is very simply. Our team led by Dr. Chad Seidel and supported by Tarrah Henrie and Craig Gorman will conduct all Corona's activities for this project, which include treatment evaluations and permitting discussion on this project. Our partners, Larry Ernst, and Russ Kyle will lead our efforts to evaluate the feasibility of source modification. Our proposed project team is introduced below. Please refer to the enclosed resumes for additional information.

Chad Seidel, Ph.D., P.E., Principal in Charge: Dr. Seidel, a recognized Cr(VI) expert within the drinking water community, will serve as principal-in-charge for this project. Chad is Vice President at Corona Environmental Consulting, LLC where he brings his more than 15 years of consulting experience serving the drinking water community. He has been engaged with California water utilities regarding chromium in drinking water since 2000 when California utilities started to respond to public concerns raised by the Erin Brockovich movie. Since then, Chad has worked with utilities throughout California and across the U.S. to understand chromium occurrence and treatment methods. Chad has lead similar successful Cr(VI) efforts as proposed here for Soquel Creek Water District, California Water Service, California American Water, and the City of Watsonville. He has been involved in leading, supporting, or advising the following Water Research Foundation chromium-related projects:

- WaterRF Project 4488 Hexavalent Chromium Treatment with Strong Base Anion Exchange (Principal Investigator)
- AWWA WITAF Project 320 / WaterRF Project 4432: National Implications of Community-Level Cost for a Theoretical Cr(VI) SDWA Standard (Principal Investigator)
- WaterRF Project 4418: Guidelines for Hexavalent Chromium Treatment Testing (Contributor)
- WaterRF Project 4414: Total Chromium and Hexavalent Chromium Occurrence Analysis (Principal Investigator)
- WaterRF Project 4404: Trace Level Chromium-6 Occurrence and Analysis (PAC Member)
- WaterRF Project 2814: Low-Level Hexavalent Chromium Treatment Options: Bench-Scale Evaluation (Researcher)
- WaterRF Project 2759: Occurrence Survey of Boron and Hexavalent Chromium (Co-Principal Investigator)

Dr. Seidel was also involved in the pilot testing of hexavalent chromium treatment technologies at Glendale (CA) Water and Power (McGuire et al. 2006, Qin et al. 2006). Chad completed his Ph.D. dissertation in 2006, titled "Investigation of Hexavalent Chromium as a Future Regulated Drinking Water Contaminant", which focused on chromium occurrence, treatment and associated costs, and discussed policy implications of potential hexavalent chromium MCLs.

Tarrah Henrie, M.Sc., Project Manager: Tarrah Henrie, a Water Process Scientist with Corona Environmental Consulting, LLC will act as the Project Manager for this effort. In May, Tarrah opened the California office for Corona, in Newark. Prior to joining Corona, Tarrah was the Manager of Water Quality for California Water Service (Cal Water). Tarrah led the Cr(VI) compliance planning for Cal Water. This resulted in the change in status for several wells, and the installation of 9 SBA-IX treatment units, and one reduction, coagulation, oxidation, filtration unit. She has extensive experience in non-treatment options implementation including: blending, well modification and status change, as well as treatment permitting for many water quality constituents, including chromium. The California Nevada section of AWWA

selected Tarrah as the co-chair of the Cr(VI) technical advisory group, and she was subsequently given the Chair's Award for her contributions. Tarrah has also been the Cr(VI) expert for the national AWWA technical advisory group to the water utility council.

Craig Gorman, P.E., Water Process Engineer: Craig Gorman has 10 years of experience as an engineering consultant which have been focused on the management of inorganic contaminants in drinking water. Craig has conducted Cr(VI) compliance assessments for multiple utilities throughout California and has been part of all of Corona's Cr(VI) bench- and pilot-scale research which have significantly contributed to the advancement of the SBA-IX and RCF processes. Additionally, Craig has assisted with AWWA funded technology assessments and literature reviews for Cr(VI) and nitrate. Currently Mr. Gorman is actively engaged in multiple Cr(VI) including those for the City of Watsonville, California American Water, and California Water Service where Corona is assisting these utilities with the development and implementation of Cr(VI) compliance strategies.

Larry Ernst, P.G., C.E.G., C.H.G., Hydrogeologist: Mr. Ernst has over 35 years of hydrogeologic and engineering geology experience and has been providing consulting services associated with groundwater resources development since 1987. Mr. Ernst is a Professional Geologist, Certified Engineering Geologist, and Certified Hydrogeologist in the State of California. His experience with groundwater development investigations have included geologic and water quality mapping, test hole exploration, geophysical logging, monitoring well design, analysis of well and aquifer testing, water level contour mapping, delineation of groundwater recharge areas, hydrogeologic analysis, well siting, aquifer storage and recovery (ASR) feasibility assessments. Additionally Mr. Ernst provided well siting studies, well site assessment, well design, and construction support services for over 240 municipal and industrial wells throughout California and is providing Cr(VI) assessments for the Rio Linda Elverta Community Water District, the University of California at Davis, and the Cities of Sacramento Vacaville.

Russell Kyle, PG, CHG, Hydrogeologist: Mr. Kyle has over 18 years of experience with a wide variety of ground water resource related projects for public and private clients within the western United States, Mexico, and Africa, with a focus on ground water resources development in Southern California. The scope of his technical experience includes groundwater basin evaluations, water supply studies, well siting investigations, artificial recharge feasibility evaluations, well field condition assessments, well rehabilitation, desalination feed water supply studies, and geophysical surveys. Over the course of his career he has been responsible for installation of more than 90 water supply wells and 50 monitoring wells and exploratory borings, including management of a team of field inspectors, coordination with drilling contractors and regulatory agencies, well design, and construction management. Recent notable projects include siting, design, and impact analysis for three new feed water supply wells for a desalting facility in the Chino Basin, a well field condition assessment and optimization plan for a well field within the Central Basin, and development of a well rehabilitation, replacement, and monitoring program for a large water purveyor spanning several groundwater basins in Riverside and San Bernardino Counties. He is also active within the water resources community and is currently serving as incoming Vice-Chair to the AWWA CA-NV Water Well Technology Committee and is a member of the AWWA CA-NV Desalination Committee and the AWWA National Groundwater Resources Committee.

Jennifer Aieta, Conceptual Site Plans: Jennifer Aieta, P.E. is the President of ACE. With over 25 years of professional experience, Ms. Aieta is a registered Professional Engineer in California and Colorado. Ms.

Aieta has been involved with all phases of engineering projects including planning, pre-design, final design, and construction. ACE is a small, women owned business, selected because of the good working relationship that Corona has developed with ACE on several other collaborations.

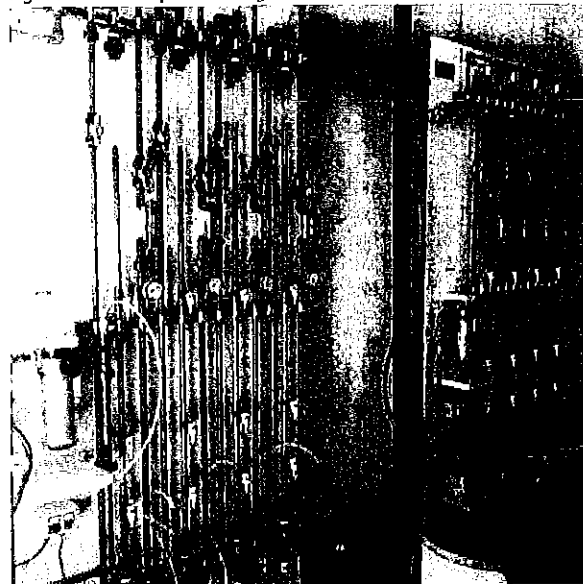
Section 4: Relevant Project Experience

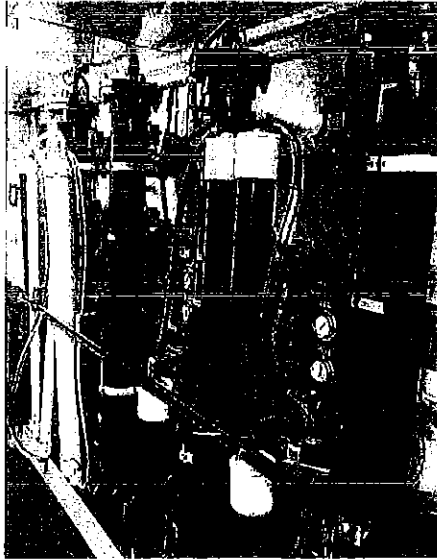
Corona is at the forefront of Cr(VI) treatment research, process evaluation, implementation and permitting and will bring this unique skillset to assist the City with this project. Coupled with Wood Rodgers' expertise in hydrogeologic investigations, we believe our team provides the City with the expertise necessary to achieve the project objectives. The project descriptions below provide a summary of our team's related experience.

California American Water, Cr(VI) Compliance and Implementation, Sacramento, CA:

California American Water (CAW) has seven groundwater wells above the 10 µg/L MCL in the Sacramento area. Corona investigated compliance strategies including blending, well modification, and treatment alternatives. This desktop evaluation identified SBA-IX as CAW's most effective compliance solution, which was then confirmed via site specific pilot testing. CAW's Cr(VI) impacted wells are ideally suited for Cr(VI) for SBA-IX treatment since the background water quality matrix, specifically nitrate and sulfate are relatively co-contaminants which our research has shown adversely impact Cr(VI) removal. That said, CAW's wells are generally located on small parcels which would make the implementation of this treatment difficult if not impossible without the acquisition of additional property. In response to this constraint, Corona recommended SBA-IX be implemented in a non-regenerable mode, which to our knowledge, the first implementation of this solution for Cr(VI), and resulted in substantial capital savings for CAW. Corona is now assisting CAW with the procurement, design and permitting of the full-scale installations which are expected to be operational in 2016.

Figure 7. SBA-IX pilot testing



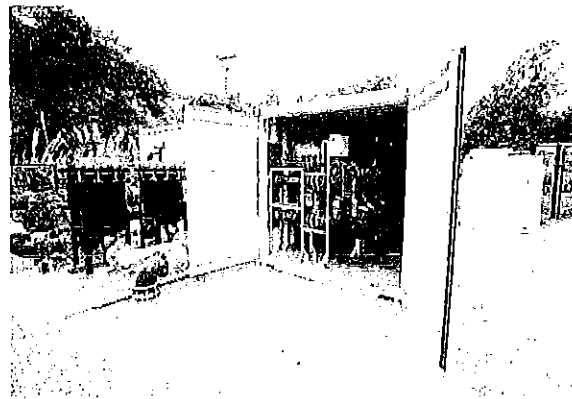
City of Watsonville, Hexavalent Chromium Treatment Facilities Project, Watsonville, CA*Figure 8. RCF pilot testing*

Corona was engaged by the City of Watsonville (City) to develop a compliance strategy for 8 wells that have historical Cr(VI) chromium concentrations greater than 8 µg/L. Corona considered a series of both treatment and non-treatment compliance strategies. The assessment resulted in a recommendation for the City to pursue reduction coagulation filtration or regenerable strong base anion exchange pending the outcomes of a sewer capacity analysis. If the City can discharge backwash residuals directly to their sanitary sewer, without the need for significant improvements to the collection system or wastewater treatment plant then the RCF process will be most cost effective.

Since the conclusion of the initial phase of work on-site pilot testing of RCF has demonstrated the efficacy of the process. Additionally Corona has been actively assisting the City with the pursuance of grant monies to fund the subsequent phases of the project.

Hexavalent Chromium Treatment Implementation Support, Soquel Creek Water Service District, CA:

The District began proactively pursuing long-term solutions their Cr(VI) impacted wells in 2013, prior to the finalization of the Cr(VI) MCL of 10 µg/L. Corona assisted the District with a preliminary treatment technology evaluation which identified SBA-IX as the most appropriate Cr(VI) technology for the District. The outcome of this project initiated the District leading a Water Research Foundation Tailored Collaboration study that investigated SBA-IX performance for Cr(VI) treatment at bench- and pilot-scale. The results of the Tailored Collaboration study demonstrated exceptional Cr(VI) capacity using SBA-IX and confirmed the recommendation of SBA-IX from the initial technology screening. This also prompted the District to move ahead with a full-scale 1,000 gpm demonstration of the SBA-IX technology at the San Andreas well. Corona has supported the District through all phases of the demonstration project including demonstration testing support, permitting and CEQA coordination.

Figure 9. First full-scale SBA-IX Cr(VI) treatment system

Concurrent with the demonstration facility, the District is proceeding with the implementation of a permanent 2,000 gpm system that will have the capability of treating the flow from 3 wells at a central facility. Corona led the development of the technical specifications for the treatment equipment. It is anticipated that an equipment supplier will be selected in September 2015 with start occurring in late 2016.

Hexavalent Chromium Treatment Implementation, California Water Service, CA: Corona has recently completed a Cr(VI) treatment study for California Water Service (Cal Water). This study addressed the treatment needs for three of Cal Water's districts that are heavily impacted by the Cr(VI) MCL, including wells in the Oak Hills and Las Lomas service areas. In total, the water quality and site-specific constraints of 27 wells were evaluated and Cr(VI) treatment recommendations were made. Based upon historical water quality and operational preferences, strong base anion exchange was found to be the low cost alternative for all but one of wells requiring treatment. This particular source in Las Lomas has an existing iron and manganese removal system and unique water quality where a portion of the total chromium exists as trivalent chromium [Cr(III)]. For this well it was found that optimization of the existing treatment system could result in simultaneous removal of Cr(VI) along with iron and manganese.

Following the completion of the treatment study, Cal Water opted to move ahead with the procurement of nine full-scale SBA-IX treatment facilities. Corona staff supported the development of equipment were operational in early 2015 to achieve compliance with the Cr(VI) MCL while the remaining systems are expected to be operation in the near future. In parallel with this effort, site specific pilot testing is being conducted at each of the ten sites to confirm critical design decisions such as EBCT, HLR and resin selection.

Figure 10. Containerized SBA-IX system under construction

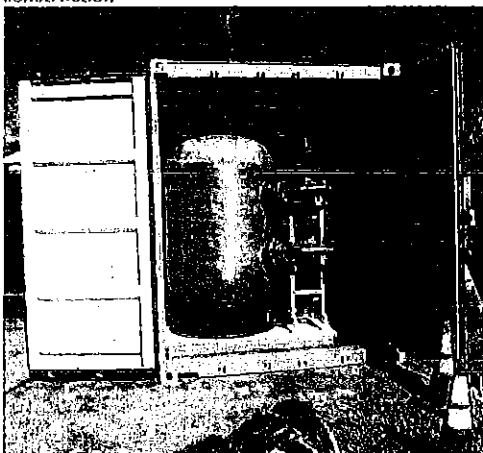
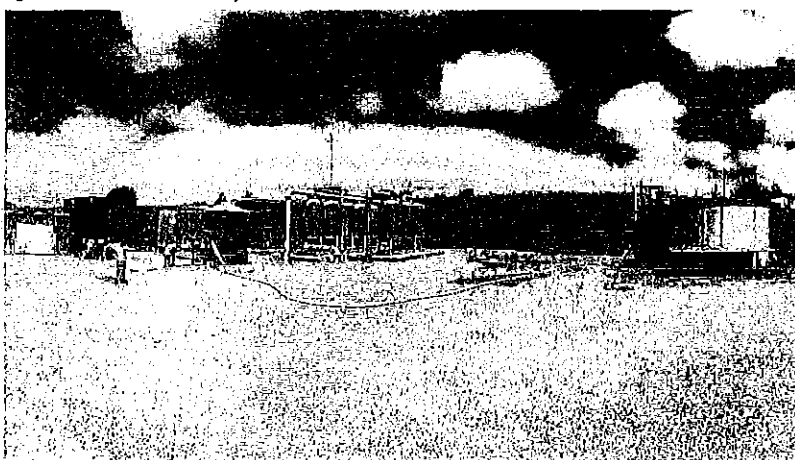


Figure 11. Full-scale RCF system



For the system with the existing iron and manganese removal system (shown on the right), on-site pilot testing was conducted the existing system could be retrofit and optimized to simultaneously remove Cr(VI). This discovery saved rate payers nearly \$1M in capital costs. Further the pilot testing conducted at this site found that the reduction time, traditionally thought to take upwards of 45 minutes

and to be the Achilles heel, could be reduced to less than 2 minutes, substantially reducing the cost and footprint of the process and increasing its applicability to utilities across the state.

Cal Water, with Corona as a technical lead, applied for, and has been awarded a \$5 million research grant from the Proposition 50 Chapter 6b fund to construct full scale demonstration treatment units.

Water Research Foundation Project 4488, Hexavalent Chromium Treatment with Strong Base Anion Exchange: Corona recently completed a groundbreaking project with the Water Research Foundation (WRF) that investigated Cr(VI) treatment with SBA-IX. This Tailored Collaboration project was co-funded by the Soquel Creek Water District and was supported by the University of California, at Davis, and Utah State University. For the SBA-IX testing, the primary goals were to compare and validate the Cr(VI) exchange capacity and regeneration requirements of commercially available resins. As with any SBA-IX application, the ability to manage the spent regenerant brine is critical. The project investigated innovative brine management techniques that will potentially allow for reuse/recycling. Methods explored include regeneration and brine treatment with weak base anion exchange resin and reduction and coagulation with ferrous sulfate. The final report for this project is available for download and review on the WRF's website.

Evaluation of well modification for Cr(VI) compliance, Indio Water Authority, Indio, CA: Several water supply wells were recently removed from active service by Indio Water Authority (IWA) as they were in exceedance of the newly promulgated Cr(VI) MCL. Some of these wells exhibit chromium-6 concentrations immediately above the MCL, prompting IWA to evaluate the feasibility of modifying wells to bring them in to compliance, allowing the wells to be utilized during periods of high demand. Wood Rodgers conducted an analysis of Well W, including time-series sampling, dynamic mass profiling, and variable flow-rate testing. Time-series testing was performed to rule out the possibility of passive vertical groundwater flow between aquifers during the extended period that the well has been idle. Dynamic mass profiling was performed, to assess the depth-specific distribution of Cr(VI). Variable flow testing was conducted to evaluate the possibility of modifying the flow profile of the well by changing the flow rate. Figure 12 shows an example of an Indio well log, along with the depth dependent Cr(VI) concentrations and relative flow contribution for each screened interval. All field testing has been completed and the analysis is underway. Should results suggest a trend in Cr(VI) with depth, recommendations will be made regarding modification of the well to reduce concentrations of Cr(VI).

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Section 5: Project Schedule

We propose completion of this project by February 26th, however, we can modify this schedule to fit the needs of the City. Our team is confident our expertise, specific to Cr(VI) compliance strategies, and in-house models and cost data bases will allow us to meet the schedule laid out in Table 2.

Table 2. Proposed schedule for the City's Cr(VI) Management Study

Milestone	Scheduled completion date
Notice to proceed issues	November 30th
Submit initial information request to the City	Week of November 30th
Receive initial information	December 11th
Initial Project Workshop	Week of December 14th
Submit Draft Report	January 29th
Recommendation Workshop	February 5th
Receipt of comments from City	February 12th
Submit Final Report to City	February 26th

As per the RFP, our team be prepared to act upon notice to proceed (NTP) on November 30, 2015. Within 48 hours of NTP, we will issue a formal information request and begin the evaluation of any information that is available at that time. Once the information is received, it will be processed to prepare information for an initial Project Workshop the week of December 14th, as described in Task 1.1, in the above Work Plan. Following the workshop, our team will continue to work diligently to provide the Draft Cr(VI) Management Report to the City on January 29th, 2016, and conduct the Recommendation Workshop the following week after the City has had a chance to review the Draft. Once all comments are received from the City, the Draft Report will be revised and submitted as Final within 2 weeks.

Section 6: References

We are pleased to provide the references, in Table 3, for similar projects that we have completed. Detailed project descriptions are in Section 4. All of these projects have been completed in multiple phases. The fees shown in the table are for the phase most similar to this proposal.

Table 3. References

Client's name	California Water Service
Project name	Preparation of a Chromium 6 Treatment Removal Study
Project description	Please refer to Section 4
Reference Contact Information	Erin McCauley Manager of Design Engineering 1720 N. First Street San Jose, CA 95112 Office: (408) 367-8593 emccauley@calwater.com
Client's name	California American Water
Project name	Hexavalent Chromium Treatment Implementation Support
Project description	Please refer to Section 4
Reference Contact Information	Lacy Carothers, P.E. Project Engineer California American Water 4701 Beloit Drive Sacramento, CA 95838 Office: (916) 568-4215 Lacy.Carothers@amwater.com
Client's name	City of Watsonville
Project name	Hexavalent Chromium Treatment Facilities Project
Project description	Please refer to Section 4
Reference Contact Information	Beau Kayser Senior Water Operator 250 Main Street Watsonville, CA 95076 Office: (831) 768-3193 beau.kayser@cityofwatsonville.org

Dr. Chad Seidel is Vice President at Corona Environmental Consulting, LLC where he brings his more than 15 years of consulting experience serving the drinking water community by providing small and large drinking water utilities with process engineering services, from optimization of existing conventional treatment processes to the application of advanced treatment processes for controlling emerging contaminants. He has been involved in groundwater treatment issues for his entire career, in particular with California water utilities dealing with key local issues of concern such as combined use of groundwater, surface water, and non-potable and/or recycled water and addressing key inorganic contaminants such as nitrate, hexavalent chromium, arsenic, perchlorate, manganese, and others and organic contaminants such as 1,4-dioxane, 1,2,3-TCP, TCE, and PCE. He maintains excellent relationships with the regulatory community including California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW), formerly Department of Public Health (DPH) and USEPA Region 9. Chad is actively engaged in supporting drinking water regulatory development efforts in California and nationally. Of relevance to this project, he conducted the American Water Works Association's (AWWA) Technical and Educational Council (TEC) funded study, *"An Assessment of the State of Nitrate Treatment Alternatives"*, which provided a comprehensive literature review and case studies of the current range of nitrate treatment alternatives. That study also collaborated with and supported the California SBX1 Groundwater Nitrate study with the University of California Davis that published a final report (Jensen, V., Darby, J., Seidel, C., Gorman, C. "Drinking Water Treatment for Nitrate- Technical Report 6; Addressing Nitrate in California's Drinking Water." California State Water Resources Control Board, 2012) and journal publication (Jensen, V., Darby, J., Seidel, C., Gorman, C, "Drinking Water Treatment for Nitrate" Critical Reviews in Environmental Science and Technology, 2013.)

Professional Registration

Colorado

37707

Registered Professional Engineer

Employment History

Vice President, Corona Environmental Consulting, Louisville, CO: March 2014 – Present

Technical Director, DeRISK Center, University of Colorado Boulder, Boulder, CO: November 2014 – Present

Manager of Water Technology, Jacobs Engineering Group, Denver, CO: January 2011 – March 2014

Principal, Damon S. Williams Associates, Denver, CO: June 2006 – January 2011

Engineer, Malcolm Pirnie, Inc., Denver, CO: April 2005 – June 2006

Engineer, McGuire Environmental Consultants, Denver, CO: May 1999 – April 2005

Education

Ph.D., Civil and Environmental Engineering, University of Colorado at Boulder, 2006: *Investigating Hexavalent Chromium as a Potential Future Regulated Drinking Water Contaminant*

M.S. Civil and Environmental Engineering, University of Colorado at Boulder, 2000: *Understanding Disinfection Byproduct Behavior in Water Distribution Systems*

B.S. Environmental Engineering, Montana Tech of the University of Montana, 1998

Associations

American Water Works Association, Member

- Carcinogenic VOCs Technical Advisory Workgroup, Member
- Microbial and DBP Technical Advisory Workgroup, Member

- CCL3 Technical Advisory Workgroup, Member
- Regulatory Reform Technical Advisory Workgroup, Member
- Inorganic Contaminants Research Committee, Chair
- Biological Treatment Committee, Member
- American Membrane Technology Association, Member

Representative Projects

California American Water, Cr(VI) Compliance and Implementation, Sacramento, CA: California American Water (CAW) has seven groundwater wells above the 10 µg/L MCL. Corona investigated compliance strategies including blending, well modification, and treatment alternatives. This desktop evaluation identified SBA-IX as CAW's most effective compliance solution, which was then confirmed via site specific pilot testing. CAW's Cr(VI) impacted wells are ideally suited for Cr(VI) for SBA-IX treatment since the background water quality matrix, specifically nitrate and sulfate are relatively co-contaminants which our research has shown adversely impact Cr(VI) removal. That said, CAW's wells are generally located on small parcels which would make the implementation of this treatment difficult if not impossible without the acquisition of additional property. In response to this constraint, Corona recommended SBA-IX be implemented in a non-regenerable mode, which to our knowledge, the first implementation of this solution for Cr(VI), and resulted in substantial capital savings for CAW. Corona is now assisting CAW with the procurement, design and permitting of the full-scale installations which are expected to be operational in 2016. Dr. Seidel has provided technical expertise through all aspects of this project.

City of Watsonville, Hexavalent Chromium Treatment Facilities Project, Watsonville, CA: Corona was engaged by the City of Watsonville (City) to develop a compliance strategy for 8 wells that have historical Cr(VI) chromium concentrations greater than 8 µg/L. Corona considered a series of both treatment and non-treatment compliance strategies. The assessment resulted in a recommendation for the City to pursue reduction coagulation filtration or regenerable strong base anion exchange pending the outcomes of a sewer capacity analysis. If the City can discharge backwash residuals directly to their sanitary sewer, without the need for significant improvements to the collection system or wastewater treatment plant then the RCF process will be most cost effective.

Since the conclusion of the initial phase of work on-site pilot testing of RCF has demonstrated the efficacy of the process. Additionally Corona has been actively assisting the City with the pursuance of grant monies to fund the subsequent phases of the project. Dr. Seidel has provided technical expertise through all aspects of this project.

Hexavalent Chromium Treatment Implementation Support, Soquel Creek Water Service District, CA: The Soquel Creek Water District is actively pursuing long-term solutions for compliance with the anticipated California Department of Public Health (DPH) final Cr(VI) MCL of 10 µg/L. Chad assisted the District with a preliminary treatment technology evaluation which identified strong base anion exchange (SBA-IX) as the most appropriate Cr(VI) technology for the District. The outcome of this project initiated the District leading a Water Research Foundation Tailored Collaboration study that investigated SBA-IX performance for Cr(VI) treatment at bench- and pilot-scale. The results of the Tailored Collaboration study demonstrated exceptional Cr(VI) capacity using SBA-IX and confirmed the recommendation of SBA-IX from the initial technology screening. This also prompted the District to move ahead with a full-scale demonstration of the SBA-IX technology at the San Andreas well. Chad supported the District through all phases of this project including demonstration testing support, permitting and CEQA coordination.

Hexavalent Chromium Treatment Implementation, California Water Service Company, CA: Corona has recently completed a Cr(VI) treatment study for the California Water Service Company (Cal Water). This study addressed the treatment needs for four of Cal Water's districts that will be heavily impacted by the pending Cr(VI) MCL. In total, the water quality and site-specific constraints of 27 wells were evaluated and treatment recommendations were made. Based upon historical water quality and operational preferences, strong base anion exchange was found to be the low cost alternative for all but one of wells requiring treatment. This particular source has an existing iron and manganese removal system and unique water quality where a large portion of the total chromium exists as trivalent chromium [Cr(III)]. For this well it was recommended that optimization of the existing treatment system be investigated to determine if the Cr(III) fraction can be removed via filtration prior to being oxidized to Cr(VI).

Following the completion of the treatment study, Cal Water opted to move ahead with the procurement of nine full-scale SBA-IX treatment facilities. Corona staff supported the development of equipment were operational in early 2015 to achieve compliance with the Cr(VI) MCL while the remaining systems are expected to be operation in the near future. In parallel with this effort, site specific pilot testing is being conducted at each of the ten sites to confirm critical design decisions such as EBCT, HLR and resin selection.

For the system with the existing iron and manganese removal system, on-site pilot testing was conducted the existing system could be retrofit and optimized to simultaneously remove Cr(VI). This discovery saved rate payers nearly \$1M in capital costs. Further the pilot testing conducted at this site found that the reduction time, traditionally thought to take upwards of 45 minutes and to be the Achilles heel, could be reduced to less than 2 minutes substantially reducing the cost and footprint of the process and increasing its applicability to utilities across the state.

Cal Water, with Corona as a technical lead, applied for and has been awarded a \$5 million research grant from the Proposition 50 Chapter 6b fund to construct full scale demonstration treatment units. Dr. Seidel has provided technical expertise through all aspects of this project. Two of the full-scale SBA systems are operational, and the rest.

Water Research Foundation Project #4488: Hexavalent Chromium Treatment with Strong Base Anion Exchange and Chemical Reductive Media: Dr. Seidel led this groundbreaking project with the Water Research Foundation (WaterRF) that investigated Cr(VI) treatment with SBA-IX. This Tailored Collaboration project was co-funded by the Soquel Creek Water District and was supported by the University of California at Davis and Utah State University. For the SBA-IX testing, the primary goals were to compare and validate the Cr(VI) exchange capacity and regeneration requirements of commercially available resins. As with any SBA-IX application, the ability to manage the spent regenerant brine is critical. The project investigated innovative brine management techniques that will potentially allow for reuse/recycling. Methods explored include regeneration and brine treatment with weak base anion exchange resin and reduction and coagulation with ferrous sulfate. The final report for this project is available for download and review on the WaterRF's website.

Health Canada Chromium Analytical Methods and Treatment Technologies Review: Prepared a literature review for Health Canada summarizing the "state of science" on the analytical methods and treatment technologies for total and hexavalent chromium in water, specifically focusing on municipal drinking water applications. The advantages and disadvantages associated with each analytical method and each treatment technology were highlighted in the guidance document.

Hexavalent Chromium Occurrence, Analytical Methods, and Treatment Methods Literature Review, American Water Works Association (AWWA), Washington, DC: Prepared a literature review of the occurrence, analytical methods, and treatment methods for hexavalent chromium in drinking water. The

project also developed a "frequently asked questions" (FAQ) document outlining resources that water utilities will find helpful in addressing their concerns related to hexavalent chromium.

Selected Relevant Publications and Presentations

1. Seidel, C., Gorman, C., Wang, S., Dufour, T., Chandler, P. and Waite, M., "Strong-Base Anion Exchange Treatment to Comply With the New California Cr(VI) MCL: Planning, Design, and Full-Scale Results" Annual Conference and Exposition of the American Water Works Association, Anaheim, CA, June 9, 2015
2. Jensen, V., Darby, J., Seidel, C., Gorman, C., "Nitrate in Potable Water Supplies: Alternative Management Strategies" *Critical Reviews in Environmental Science and Technology*, 44:20, 2203-2286, DOI: 10.1080/10643389.2013.828272, August 2014.
3. Seidel, C., Gorman, C., Ghosh, G., Dufour, T., Mead, C., Henderson, J., Li, X., Darby, J., Green, P., McNeill, L., Clifford, D., "Hexavalent Chromium Treatment with Strong Base Anion Exchange", Water Research Foundation, Denver, CO, 2014.
4. Alfredo, K., Seidel, C., Roberson, J., "Reviewing the occurrence data used in the revised Arsenic Rule" *Journal of the American Water Works Association*, 106:3, March, 2014.
5. Seidel, C., Najm, I., Blute, N., Corwin, C., Wu, X., "National and California Treatment Costs to Comply with Potential Hexavalent Chromium MCLs" *Journal of the American Water Works Association*, June 2013.
6. Seidel, C., Corwin, C., "Total Chromium and Hexavalent Chromium Occurrence Analysis" *Journal of the American Water Works Association*, June 2013.
7. McGavisk, E., Roberson, J.A., and Seidel, C., "Using community economics to compare arsenic compliance and noncompliance" *Journal of the American Water Works Association*, Vol. 105, No. 3, March 2013.
8. Seidel, C., Ghosh, A., White, D., "Simultaneous Treatment Strategies for Raw Water Ammonia, Manganese, and Sulfide" presented at the 132nd Annual Conference and Exposition of the American Water Works Association, Denver, CO, June 13, 2013.
9. Jensen V., Darby, J., Seidel C., Gorman C. "Drinking Water Treatment for Nitrate- Technical Report 6; Addressing Nitrate in California's Drinking Water." California State Water Resources Control Board, 2012.
10. Seidel, C., "Carcinogenic VOCs: Regulatory Update, Occurrence, and Treatment" presented at the NJAWWA Section Annual Conference, Atlantic City, NJ, March 20, 2013.
11. Roth, D., Cornwell, D., Seidel, C., Corwin, C., "Carcinogenic VOCs Treatment Decision Tree" presented at the AWWA Water Quality and Technology Conference, Toronto, ON, November 7, 2012.
12. Seidel, C., "Group Regulation of Carcinogenic VOCs Part II: Assessing VOC Occurrence" presented at the AWWA Water Quality and Technology Conference, Phoenix, AZ, November 14, 2011.
13. Brophy, K., Seidel, C., Lei, D., "Lessons Learned from Arsenic and Manganese Treatment Optimization" presented at the AWWA Water Quality and Technology Conference, Savannah, GA, November 16, 2010.
14. Seidel, C., Means, E.G., Summers, R.S., Pennell, G. "Evaluating Treatment Technologies for 1,2,3-Trichloropropane Control: Bench- and Pilot-Scale Results," presented at the Spring Conference of the American Water Works Association, California-Nevada Section, Burlingame, CA, April 22-26, 2006.
15. Seidel, C., Blute, N.K., McGuire, M.J., Byerrum, J., "Field Testing of Single Use Ion Exchange Resins for Perchlorate Removal," presented at the Inorganic Contaminants Workshop of the American Water Works Association, Austin, TX, January 29-31, 2006.
16. McGuire, M.J., Blute, N.K., Seidel, C., Qin, G., Fong, L., "Pilot-Scale Studies of Hexavalent Chromium Removal from Drinking Water," *Journal of the American Water Works Association*, Vol. 98, No. 2, February 2006.
17. Seidel, C., McGuire, M.J., Summers, R.S., Via, S., "Have Utilities Switched to Chloramines?" *Journal of the American Water Works Association*, Vol. 97, No. 10, October 2005.

Tarrah Henrie is a water process scientist with 12 years of experience solving inorganic and organic drinking water contaminant and regulatory compliance challenges. For the past several years, Tarrah has been involved with hexavalent chromium research, planning, treatment, and legislation. Nitrate, ammonia, nitrification, 1,2,3-Trichloropropane, algal toxins, and cross-connection control are other areas of interest. She has opened Corona's new office in the California Bay Area.

Employment History

Water Process Scientist, Corona Environmental Consulting, Newark, CA: 5/15 - Current

Manager of Water Quality, California Water Service, San Jose, CA: 8/09 - 8/13, 3/14 - 5/15

Acting Director of Water Quality, California Water Service, San Jose, CA: 8/13 - 2/14

Acting Manager of Laboratory Services, California Water Service, San Jose, CA: 8/08 - 2/09

Water Quality Project Manager, California Water Service, San Jose, CA: 11/00 - 11/03, 9/06 - 8/08, 3/09 - 8/09

Education

M.S. Soil Science, with a chemistry emphasis, University of California, Davis, CA, 2002: *Chemistry, Mineralogy, and Amelioration of Agriculturally Induced Acidity.*

B.S. Environmental Soil and Water Science, Utah State University, Logan, UT, 1998

Certifications

Water Treatment Operator T2, California DDW

Water Distribution Operator D2, California DDW

Backflow Prevention Tester, California/Nevada section of AWWA

Cross Connection Specialist, California/Nevada section of AWWA

Associations

American Water Works Association, Member

- Technical Advisory Group to the Water Utility Council, Member
- Evaluation of Distribution System Disinfection Residual Workgroup, Project Steering Committee Member
- Inorganic Contaminants Committee, Vice Chair
- CA/NV AWWA Technical Advisory Group on Chromium 6, Co-Chair
- CA/NV AWWA Technical Program Committee, Vice Chair
- CA/NV AWWA Research Committee, Vice Chair and Secretary

California Water Association

- Water Quality Committee, Chair

Representative Projects

California Nevada AWWA and National AWWA Technical Expert on Hexavalent Chromium: The California Nevada section of AWWA selected Ms. Henrie as the co-chair of the Cr(VI) Technical Advisory Group (TAG). The TAG was charged with providing input to regulators tasked with developing California's chromium 6 drinking water regulation. Even before the proposed regulation was released members of the group met with state regulators to offer information on treatment costs and request a reasonable implementation period be included in the regulation. The TAG worked with the California Water Association and the Association of California Water Agencies to prepare technical reports to support extensive comments on the draft regulation, and was successful in getting the portion of the regulation dealing with distribution system chromium 6 concentrations removed. The TAG also worked with other stakeholders on legislation in California to obtain the five years allowed under the Safe Drinking Water Act to install treatment facilities needed to comply with this regulation. Ms. Henrie was subsequently given the Chair's Award for her contributions.

Ms. Henrie has also been the Cr(VI) expert for the national AWWA Technical Advisory Group to the Water Utility Council for the last 4 years. This group makes recommendations to AWWA on how funds should be spent to conduct research and complete projects related to emerging water issues.

Hexavalent Chromium Treatment Implementation, California Water Service, CA: During Ms. Henrie tenure as the Manager of Water Quality for California Water Service (Cal Water) she worked closely with Corona to complete a Cr(VI) treatment study. This study addressed the treatment needs for four of Cal Water's districts that are heavily impacted by the Cr(VI) MCL. In total, the water quality and site-specific constraints of 27 wells were evaluated and treatment recommendations were made. Based upon historical water quality and operational preferences, strong base anion exchange (SBA-IX) was found to be the low cost alternative for all but one of wells requiring treatment. In parallel with this effort, site specific pilot testing was conducted at each of the nine sites to inform critical design decisions such as EBCT, HLR and resin selection. The full-scale SBA-IX systems are currently in construction, and two are in operation. These were the first full scale, permanent, installations permitted by the Division of Drinking Water in California.

For the one source that was not recommended for SBA-IX treatment an existing iron and manganese removal system is being modified with ferrous addition to treat with Reduction Coagulation Oxidation Filtration. Modifying the existing treatment unit provided a significant cost savings to the Cal Water customers. This is the first full scale RCOF treatment unit to be permitted for Cr(VI) treatment of drinking water in the nation.

Ms. Henrie, with Corona as a technical lead, applied for Proposition 50 Chapter 6b grant funding. Cal Water has been awarded a \$5 Million grant through this effort.

Hexavalent Chromium Treatment Funding, City of Watsonville, CA: Corona has completed a Cr(VI) treatment study. This study addressed the treatment needs for seven of the City of Watsonville's wells that have Cr(VI) over the MCL. The water quality and site-specific constraints evaluated and treatment recommendations were made. Based upon historical water quality and operational preferences, RCOF was found to be the low cost alternative for all of the wells. Corona has pilot tested the RCOF process at a well with existing iron and manganese treatment, and recommended full scale installation.

Ms. Henrie worked closely with the City to apply for Integrated Regional Water Management Plan (IRWMP) grant funding to finance further pilot testing and full scale design. The grant determination is expected by the end of 2015.

Hexavalent Chromium Treatment Permitting, California American Water, CA: Ms. Henrie is currently working with California American Water (CAW) and the Division of Drinking Water to permit the installation of a non-regenerable SBA-IX installation in the Sacramento area. This will be the first full scale installation of non-regenerable SBA-IX for Cr(VI) treatment in drinking water in California.

Water Research Foundation Project Number 4423: As a co-Principle Investigator Ms. Henrie directed and coordinated the SBA-IX and Weak Base Anion Exchange (WBA-IX) research in the Cal Water Livermore district. This research tested several new anion exchange resins and looked at different mineral acids to adjust pH for WBA-IX treatment. The significance of this research was to test chromium treatment technologies in water qualities that are different from Glendale, CA, where all of the research prior to this project was conducted.

Publications and Presentations

1. *Groundwater Contaminants and Treatment.* CA/NV AWWA Water Education Symposium. July 2015.
2. *Advances in Chromium VI Treatment -- SBA-IX Brine Management.* AWWA Annual Conference and Exposition. June 2015.
3. *The Benefits and Challenges of Manganese Treatment, Case Studies.* AWWA Annual Conference and Exposition. June 2015.
4. *Hexavalent Chromium Treatment with New Ion Exchange Resins and Reduction/Coagulation/Microfiltration.* Water Research Foundation Webcast. May 2015.
5. *Chromium 6 Practical Considerations for Treatment.* Water Quality Technology Conference. November 2014.
6. *Unregulated Contaminants Monitoring Rule 3 Occurrence Data and Implications.* CA/NV AWWA Fall Conference. October 2014.
7. *Chromium 6, Cost to Treat.* CA/NV AWWA Fall Conference. October 2013.
8. *Ammonia Case Study 2, a Southern California Utility.* Water Quality Technology Conference. November 2012.
9. *Got Ammonia?* June 2012 Volume 38, Number 6, Opflow.
10. *Waterworks Standards.* CA/NV AWWA Simultaneous Regulatory Compliance and Unintended Consequences Seminar. January, 2011.
11. *A Water Utility's Experience in Implementing the Groundwater Rule.* CA/NV Spring Conference. March, 2010.
12. *Data Trending to Facilitate Planning for New Treatment.* CA/NV Spring Conference. April, 2008.
13. *Chromium 6+ Concentrations in Drinking Water Wells and the Effects of Chlorination.* Chromium VI Handbook. CRC Press.

Craig Gorman has 10 years of experience as an engineering consultant which have been focused on the management of inorganic contaminants in drinking water. Craig has conducted Cr(VI) compliance assessments for multiple utilities throughout California and has been part of all of Corona's Cr(VI) bench- and pilot-scale research which have significantly contributed to the advancement of the SBA-IX and RCF processes. Additionally, Craig has assisted with AWWA funded technology assessments and literature reviews for Cr(VI) and nitrate. Currently Mr. Gorman is actively engaged in multiple Cr(VI) including those for the City of Watsonville, California American Water, and California Water Service where Corona is assisting these utilities with the development and implementation of Cr(VI) compliance strategies.

Education

M.S. Civil Engineering, University of Colorado at Boulder, Boulder, CO, August 2005

Thesis Title: "Initial Measurements and Test System Development for Evaluation of a Novel, Hybrid Reverse Osmosis-Electrodialysis Process"

B.S. Environmental Science, State University of New York at Plattsburgh, Plattsburgh, NY, December 1999,
Magna Cum Laude

Representative Projects

California American Water, Cr(VI) Compliance and Implementation, Sacramento, CA:
California American Water (CAW) has seven groundwater wells above the 10 µg/L MCL. Corona investigated compliance strategies including blending, well modification, and treatment alternatives. This desktop evaluation identified SBA-IX as CAW's most effective compliance solution, which was then confirmed via site specific pilot testing. CAW's Cr(VI) impacted wells are ideally suited for Cr(VI) for SBA-IX treatment since the background water quality matrix, specifically nitrate and sulfate are relatively co-contaminants which our research has shown adversely impact Cr(VI) removal. That said, CAW's wells are generally located on small parcels which would make the implementation of this treatment difficult if not impossible without the acquisition of additional property. In response to this constraint, Corona recommended SBA-IX be implemented in a non-regenerable mode, which to our knowledge, the first implementation of this solution for Cr(VI), and resulted in substantial capital savings for CAW. Corona is now assisting CAW with the procurement, design and permitting of the full-scale installations which are expected to be operational in 2016. Craig has been engaged in all aspects of this project and is currently leading Corona's efforts with Black and Veatch for equipment procurement and permitting of the full-scale systems.

City of Watsonville, Hexavalent Chromium Treatment Facilities Project, Watsonville, CA
Corona was engaged by the City of Watsonville (City) to develop a compliance strategy for 8 wells that have historical Cr(VI) chromium concentrations greater than 8 µg/L. With Mr. Gorman acting as project manager, Corona considered a series of both treatment and non-treatment compliance strategies. The assessment resulted in a recommendation for the City to pursue reduction coagulation filtration or regenerable strong base anion exchange pending the outcomes of a sewer capacity analysis. If the City can discharge backwash residuals directly to their sanitary sewer, without the need for significant improvements to the collection system or wastewater treatment plant then the RCF process will be most cost effective.

Since the conclusion of the initial phase of work on-site pilot testing of RCF has demonstrated the efficacy of the process. Additionally Corona has been actively assisting the City with the pursuance of grant monies to fund the subsequent phases of the project.

Hexavalent Chromium Treatment Implementation Support, Soquel Creek Water Service District, CA: The District is actively pursuing long-term solutions for compliance with the anticipated California Department of Public Health (DPH) final Cr(VI) MCL of 10 µg/L. Craig assisted the District with a preliminary treatment technology evaluation which identified strong base anion exchange (SBA-IX) as the most appropriate Cr(VI) technology for the District. The outcome of this project prompted the District to lead a Water Research Foundation Tailored Collaboration study that investigated SBA-IX performance for Cr(VI) treatment at bench- and pilot-scale. The results of the Tailored Collaboration study demonstrated exceptional Cr(VI) capacity using SBA-IX and confirmed the recommendation of SBA-IX from the initial technology screening. This also prompted the District to move ahead with a full-scale demonstration of the SBA-IX technology at the San Andreas well. Mr. Gorman will be supporting the District through all phases of this project including demonstration testing support, permitting and CEQA coordination.

Hexavalent Chromium Treatment Implementation, California Water Service, CA: Corona has recently completed a Cr(VI) treatment study for the California Water Service Company (Cal Water). This study addressed the treatment needs for four of Cal Water's districts that will be heavily impacted by the pending Cr(VI) MCL. In total, the water quality and site-specific constraints of 27 wells were evaluated and treatment recommendations were made. Based upon historical water quality and operational preferences, strong base anion exchange was found to be the low cost alternative for all but one of wells requiring treatment. This particular source has an existing iron and manganese removal system and unique water quality where a large portion of the total chromium exists as trivalent chromium [Cr(III)]. For this well it was recommended that optimization of the existing treatment system be investigated to determine if the Cr(III) fraction can be removed via filtration prior to being oxidized to Cr(VI).

Following the completion of the treatment study, Cal Water opted to move ahead with the procurement of nine full-scale SBA-IX treatment facilities. Corona staff supported the development of equipment were operational in early 2015 to achieve compliance with the Cr(VI) MCL while the remaining systems are expected to be operation in the near future. In parallel with this effort, site specific pilot testing is being conducted at each of the ten sites to confirm critical design decisions such as EBCT, HLR and resin selection.

For the system with the existing iron and manganese removal system, on-site pilot testing was conducted the existing system could be retrofit and optimized to simultaneously remove Cr(VI). This discovery saved rate payers nearly \$1M in capital costs. Further the pilot testing conducted at this site found that the reduction time, traditionally thought to take upwards of 45 minutes and to be the Achilles heel, could be reduced to less than 2 minutes substantially reducing the cost and footprint of the process and increasing its applicability to utilities across the state.

Cal Water, with Corona as a technical lead, applied for and has been awarded a \$5 million research grant from the Proposition 50 Chapter 6b fund to construct full scale demonstration treatment units. Mr. Gorman was active throughout all phases of this project and led the development of the alternatives analysis and all pilot testing activities.

Water Research Foundation Project 4488: Hexavalent Chromium Treatment with Strong Base Anion Exchange: With Mr. Gorman acting as Co-principal Investigator, Corona recently completed a groundbreaking project with the Water Research Foundation (WaterRF) that investigated Cr(VI) treatment with SBA-IX. This Tailored Collaboration project was co-funded by the Soquel Creek Water District and was supported by the University of California at Davis and Utah State University. For the SBA-IX testing, the primary goals were to compare and validate the Cr(VI) exchange capacity and regeneration requirements of

commercially available resins. As with any SBA-IX application, the ability to manage the spent regenerant brine is critical. The project investigated innovative brine management techniques that will potentially allow for reuse/recycling. Methods explored include regeneration and brine treatment with weak base anion exchange resin and reduction and coagulation with ferrous sulfate. The final report for this project is available for download and review on the WaterRF's website.

Health Canada Chromium Analytical Methods and Treatment Technologies Review: Prepared a literature review for Health Canada summarizing the "state of science" on the analytical methods and treatment technologies for total and hexavalent chromium in water, specifically focusing on municipal drinking water applications. The advantages and disadvantages associated with each analytical method and each treatment technology were highlighted in the guidance document.

Hexavalent Chromium Occurrence, Analytical Methods, and Treatment Methods Literature Review, American Water Works Association (AWWA), Washington, DC.: Prepared a literature review of the occurrence, analytical methods, and treatment methods for hexavalent chromium in drinking water. The project also developed a "frequently asked questions" (FAQ) document outlining resources that water utilities will find helpful in addressing their concerns related to hexavalent chromium.

Representative Publications and Presentations

Gorman C., C. Seidel, X. Li. "Cr(VI) Treatment with Strong Base Anion Exchange: Advances in Brine Minimization Strategies." California-Nevada AWWA Fall Conference, October, 2013.

Gorman C., C. Seidel, X. Li. "Cr(VI) Treatment with Strong Base Anion Exchange: Bench and Pilot Scale Investigations." Water Quality and Technology Conference, Long Beach, CA, November, 2013.

Gorman C., C. Seidel, C., T. Henrie, L. Huang. Strong Base Anion Exchange Treatment of Cr(VI) in Groundwater: Approaching Zero Liquid Discharge. American Water Works Association Annual Conference and Exhibition, Boston, MA, June 2014

Gorman C., C. Seidel, T. Henrie, L. Huang, X. Li. From Bench to Full Scale: A Water Utility's Approach to Compliance with the California Hexavalent Chromium MCL. Water Quality and Technology Conference, New Orleans, LA, November, 2014.

Gorman C., E. Townsend, R. Thompson, R. Ippagunta. Reduction, Coagulation, Oxidation, Filtration A Cost Effective Cr(VI) Treatment Method. American Water Works Association Annual Conference and Exhibition, Anaheim, CA, June 2014

LAWRENCE ERNST, P.C.E.G., C.H.C.

PROJECT ROLE

Lead Hydrogeologist

TITLE

Principal Geologist II

EDUCATION

BS, Engineering Geology,
San Diego State
University, 1980

REGISTRATION/ CERTIFICATIONS

Registered Professional
Geologist, California No.
5011, 1991

Certified Engineering
Geologist, California No.
1552, 1991

Certified Hydrogeologist,
California No. 390, 1996

PROFESSIONAL AFFILIATIONS

Groundwater Resources
Association of California

American Water Works
Association

AWARDS

National Groundwater
Association, Outstanding
Groundwater Supply
Project, honorable
mention, City of Portola,
1996

WOOD RODGERS, INC. START DATE

September 30, 2005

Mr. Ernst has over 35 years of experience in hydrogeology, well design, and regional hydrogeologic assessments. Projects have included assessments to support well field expansion, well siting, well designs, construction support services and project management of over 240 municipal, agricultural or industrial wells. Mr. Ernst has also designed and implemented regional groundwater monitoring programs and conducted basin-wide groundwater assessments. His groundwater investigations include geologic mapping, test hole exploration, geophysical logging, monitoring well design; analysis of well and aquifer testing, water level contour mapping, and hydrogeologic analysis. Mr. Ernst has been the Wood Rodgers' Groundwater/Water Supply team leader since 2005.

EXPERIENCE

Well Field Assessment and Well Replacements - City of Ceres, California. Mr. Ernst prepared a city-wide groundwater characterization study for the City's Water Master Plan which included an assessment of the condition of the entire City's well field. Mr. Ernst recently designed and provided construction support for an ARRA-funded replacement well and two other City wells. The three new wells meet all CDPH drinking water standards, while the old wells exceeded the MCLs for both nitrates and uranium.

Hydrogeologic Evaluation and Well Field Assessment - Valley of the Moon Water District (VOMWD) - Verano, California. Mr. Ernst conducted a regional hydrogeologic evaluation for the entire Sonoma Valley to prepare a report titled "Master Plan for Ground-Water Development and Management" prepared in 1999. This report included geologic cross-sections to characterize the basin geology. Mr. Ernst provided exploration drilling, well evaluations and well rehabilitation for the District. Mr. Ernst continues to provide on-call hydrogeologic consulting services for VOMWD including expert witness consulting services.

Well Field Development - City of Fresno, California. Mr. Ernst conducted a city-wide hydrogeologic evaluation from 1989 to 1996, including exploratory drilling at 78 potential replacement well sites. This exploration program included monitoring well construction; characterization of the vertical and lateral extent of contamination plumes, and other naturally occurring constituents (such as arsenic and manganese) to allow for the successful design and construction of over 70 replacement wells. Mr. Ernst is currently on the RMC team to assess the City's well field optimization.

Well Field Expansion - City of Davis, California. Mr. Ernst provided hydrogeologic support services for a new 1,650-foot well. Services included site exploration with a 1,700-foot monitoring well, preparation of plans and specifications, well construction support, and detailed aquifer testing and analysis. Mr. Ernst currently provides on-call hydrogeologic services to the City, including well rehabilitation and well destruction support services.

Well Field Development, Sacramento County Water Agency (SCWA) - Elk Grove, California. Mr. Ernst has provided SCWA with on-call hydrogeologic consulting services since 1992. In 1998, Mr. Ernst prepared a report titled Groundwater Injection Feasibility Study which included detailed geologic cross-sections, identification of water quality concerns in the Zone 40 area and identification of specific areas that may be suitable for groundwater recharge. Over the past 22 years, Mr. Ernst provided exploratory drilling, well design, bidding assistance, and technical construction inspection of 38 production wells. Recently, Mr. Ernst provided well design and construction support services for one 800-foot well, three 1,400-foot wells, and the designs for four additional wells that are slated for construction.

Well Field Development - City of Vacaville, California. Mr. Ernst conducted regional hydrogeologic evaluations for the preparation of an AB 3030 Groundwater Management Plan and a SB 610 Water Supply Assessment report. Exploratory drilling extended to depths of up to 2,400-feet. Mr. Ernst provided well designs and construction management for three municipal production wells ranging in depth from 600 to 1,800-feet and five monitoring wells up to 2,350-feet deep. Mr. Ernst continues to provide on-call hydrogeologic consulting services to the City under a master service agreement.

Well Field Assessment and Well Design - City of Galt, California. All of the shallow City wells (less than 1,000-feet deep) require treatment for manganese and arsenic. Mr. Ernst discovered a deeper aquifer with excellent water quality under the City. Mr. Ernst's recent (2011) project included a new well to 1,550-feet that meets all CDPH drinking water standards.

Well Field Expansion - University of California at Davis (UCD), Davis, California. Mr. Ernst provided UCD with hydrogeologic support services for six wells. Services included site assessment drilling to 1,400-feet, well designs, the preparation of production well specifications, and well construction support. A 2012 project included an 18-inch 2,000 gpm municipal water supply well to a depth of 1,400-feet with excellent water quality.

Hydrogeologic Consulting Services - City of Sacramento, California. Mr. Ernst prepared the Hydrogeologic Report to support the City of Sacramento's 2010 Water Master Plan. Groundwater quality varies widely with respect to location and depth within the City's service area. This report included a comprehensive characterization of the hydrogeologic system to identify potential well sites and preliminary well designs to target both the shallow and deep aquifers with the best water quality possible. The study assessed the local and regional hydrogeology through the preparation of three hydrogeologic cross-sections and analysis of groundwater conditions (groundwater quality and elevations) over time. Specifically, the vertical and spatial variation for concentrations of arsenic and manganese were delineated on each of the three geologic cross-sections to identify areas where poor quality water could be anticipated. In conjunction with the City, twelve of the most favorable potential new well sites were assessed for the likelihood of meeting the City's water quality and capacity objectives. Mr. Ernst scored each potential well site based on a ranking system to provide for initial screening for site suitability, water quality, energy costs (depth to water), and constructability issues. Other hydrogeologic work that Mr. Ernst conducted for the City included the City's UCMR 2 Groundwater Representative Monitoring Plan (2007) and the design and construction support of a 1,400-foot, 2,800 gpm well (2014).

Groundwater Management Plan - Sutter County, California. Mr. Ernst completed the hydrogeologic characterization of the entire Sutter County for the preparation of a county-wide Groundwater Management Plan. This report includes a groundwater recharge map depicting recharge from streams; applied irrigation and rainfall, aquifer outcrop areas, and regional groundwater flow. Mr. Ernst also conducted all of the public outreach for this project which included workshops, advisor committee meetings, and presentations to the County Board of Supervisors.

Groundwater Management Plan - Colusa County, California. Mr. Ernst provided the hydrogeologic characterization of the entire Colusa County for the preparation of a county-wide Groundwater Management Plan and provided public outreach presentations. Mr. Ernst is currently working with Colusa County to implement the recommendations of this Plan.

Basin Hydrogeologic Evaluation, Great Basin Unified Air Pollution Control District (GBUAPCD) and Los Angeles Department of Water and Power (LADWP) - Inyo County, California. GBUAPCD and LADWP wanted to evaluate the feasibility of groundwater resources development from the aquifer systems under the Owens Lake for dust control mitigation. Mr. Ernst provided the hydrogeologic exploration and evaluation for 16 sites and aquifer testing for 25 wells. Twelve of the locations were on the dry lake bed where difficult drilling conditions included artesian aquifer pressures greater than 20 psi.

Groundwater Evaluations and Groundwater Monitoring Plan Development - Glenn County, California. Mr. Ernst provided the hydrogeologic characterization of the entire Glenn County for the preparation of a county-wide Groundwater Monitoring Plan. This work included a geologic cross-section to help portray the locations of the Tehama and Tuscan Formations within the county. These assessments also included detailed mapping of the direction of groundwater flow in each aquifer unit within the county and the construction of monitoring wells.

KYLE, KYLA, M.S., P.G.E.C.

PROJECT ROLE

Hydrogeologist

TITLE

Associate III

EDUCATION

MS, Environmental
Hydrogeology, California
State University – Los
Angeles, 2006

BS, Geology, California
State Polytechnic
University – Pomona,
1996

REGISTRATIONS/ CERTIFICATIONS

Registered Professional
Geologist, California No.
7648, 2004

Certified Hydrogeologist,
California No. 822, 2005

PROFESSIONAL AFFILIATIONS

Groundwater Resources
Association of California

American Water Works
Association

WOOD RODGERS, INC. START DATE

February 1, 2015

Mr. Kyle has over 18 years of experience with a wide variety of ground water resource related projects for public and private clients within the western United States, Mexico, and Africa, with a focus on ground water resources development in Southern California. The scope of his technical experience includes groundwater basin evaluations, water supply studies, well siting investigations, artificial recharge feasibility evaluations, well field condition assessments, well rehabilitation, desalination feedwater supply studies, and geophysical surveys. Over the course of his career he has been responsible for installation of more than 90 water supply wells and 50 monitoring wells and exploratory borings, including management of a team of field inspectors, coordination with drilling contractors and regulatory agencies, well design, and construction management. Recent notable projects include siting, design, and impact analysis for three new feedwater supply wells for a desalting facility in the Chino Basin, a well field condition assessment and optimization plan for a well field within the Central Basin, and development of a well rehabilitation, replacement, and monitoring program for a large water purveyor spanning several groundwater basins in Riverside and San Bernardino Counties. He is also active within the water resources community and is currently serving as incoming Vice-Chair to the AWWA CA-NV Water Well Technology Committee and is a member of the AWWA CA-NV Desalination Committee and the AWWA National Groundwater Resources Committee.

SELECTED EXPERIENCE

Assessment of Chromium-6 Occurrence within Water Supply Wells – Indio Water Authority, Indio, California. Several water supply wells were recently removed from active service by Indio Water Authority (IWA) as they were in exceedance of the newly promulgated chromium-6 MCL. Some of these wells exhibit chromium-6 concentrations immediately above the MCL, prompting IWA to evaluate the feasibility of modifying wells to bring them in to compliance, allowing the wells to be utilized during periods of high demand. Mr. Kyle conducted an analysis of Well W, including time-series sampling, dynamic mass profiling, and variable flow-rate testing. Time-series testing was performed to rule out the possibility of passive vertical groundwater flow between aquifers during the extended period that the well has been idle. Dynamic mass profiling was performed to assess the depth-specific distribution of chromium-6. Should results suggest a trend in chromium-6 with depth, recommendations will be made regarding mitigation of the well to reduce concentrations of chromium-6. Variable flow testing was conducted to evaluate the possibility of modifying the flow profile of the well by changing the flow rate. All field testing has been completed and the analysis is underway.

Santa Maria Mira Flores Well No. 2 – Golden State Water Company – Santa Maria, California. While at Wood Rodgers, Mr. Kyle performed a detailed assessment of a water supply well that developed several holes within the blank well casing adjacent to a coarse-grained aquifer. The purpose of the evaluation was to assess possible water quality changes in the well due to the casing holes, and to develop a cost effective plan for a long-lasting repair. The evaluation included a review of well construction and rehabilitation details, performance characteristics, hydrogeological conditions, historical groundwater quality, downhole video surveys, and CMTM surveys. Ultimately, the recommendation was to leave the well in its current condition as the well was operating efficiently and the risk of damage through repair was deemed too great.

Preliminary Design of the Tustin Legacy Well – Irvine Ranch Water District – Tustin, California. Mr. Kyle prepared preliminary design and source water assessment documents for a new well to be located at the Tustin Legacy project in Tustin. Of particular concern are the numerous cleanup sites associated with the closed Marine Corps Air Station and the South Basin cleanup area, and naturally occurring contaminants of concern such as TDS, nitrate, color, and odor.

Municipal Well Water Quality Evaluation – City of Santa Fe Springs, California. Mr. Kyle provided technical support to the City to evaluate a recently equipped municipal water supply well which was exhibiting changes in groundwater quality from when it was initially constructed. A program of field testing suggested passive vertical groundwater flow between aquifers had occurred during an extended idle period between construction and equipping.

Los Osos Rosina Well No. 1 – Golden State Water Company – Los Osos, California. Mr. Kyle is conducting a detailed assessment of a water supply well that has suffered from a sharp decline in specific capacity. The assessment includes an evaluation of well condition, historical performance data, water quality, and well and pump efficiency testing. The purpose of the assessment is to develop a well rehabilitation and redevelopment scope of work suitable for obtaining contractor cost estimates.

Lancaster Wells 1-01 and 1-03 Condition Assessment – California Water Service Company – Lancaster, California. Mr. Kyle conducted a condition assessment for two water supply wells with the goal of developing a tailored well rehabilitation and retrofit program. The evaluation included a review of well and wellhead construction details, performance characteristics, hydrogeological conditions, and well and pumping plant efficiency testing. One well was found to be in good operating condition and was not recommended for rehabilitation. A detailed program of rehabilitation and redevelopment was recommended for the other, including chemical and mechanical cleaning.

Siting of a New Municipal Water Supply Well in Whittier Narrows Area – Rowland Water District – Whittier, California. Rowland Water District has purchased groundwater pumping rights within the Central Basin and is seeking to construct a new well in the Whittier area. The goal is to produce potable groundwater from the Central Basin and transport it to RWD's service area in the Puente Subbasin through an existing California Domestic Water Company transmission pipeline. Several potential sites were identified as candidates for the new well and Mr. Kyle was tasked with assessing each site, quantifying the assessment through a decision matrix, and ranking sites according to suitability.

Municipal Well Relocation Project – Hillwood Investment Properties - San Bernardino, California. Mr. Kyle was the technical project lead for a project involving relocation of two existing production wells to make room for construction of a large warehouse. This time-critical project involved constructing two new wells prior to destruction of the existing wells, all of which occurred under clear and immovable deadlines on the part of the developer. Mr. Kyle worked with the developer, the equipping engineer, the City of Riverside, the City's hydrogeologist, and the drilling contractor to accomplish this goal and provided technical specifications, bidding support, construction management, design, and inspection services. Both wells have been successfully constructed, developed, and tested at production rates of up to 5,500 gpm.

Chino Basin Desalter Phase 3 Project – Chino Basin Desalter Authority - Chino Basin, California. Mr. Kyle provided project management, construction management, and technical support for siting, design, and installation of new groundwater supply wells in the Chino Basin. The purpose of the wells is to expand production of non-potable water as a source of feedwater to the Chino I and II Desalters, and to establish hydraulic control of the Chino Basin. Three wells were successfully installed in the Chino Creek area, near the Chino I Desalter. Additionally, two (2) wells were sited and constructed in the vicinity of the Chino II Desalter. Water level and water quality impacts from expansion of the desalter system were evaluated through groundwater modeling.

Baseline Feeder Well Replacement Project – San Bernardino Valley Municipal Water District - San Bernardino, California. Mr. Kyle served as project manager during installation of two high capacity production wells to provide water for the Baseline Feeder Pipeline which serves West Valley Water District, the City of Rialto, and Riverside Highland Water Company. The scope of work included preparation of preliminary design, including oversight of a subsurface geophysical fault investigation, preparation of technical specifications, bidding support, and design and installation of the wells. Both wells were successfully completed on schedule and within budget. The recommended pumping rates of the wells were 3,500 and 3,000 gpm with associated specific capacities of 70 and 54 gpm/ft.

September 28, 2015

City of Banning
City Clerk's Office
99 E. Ramsey Street
P.O. Box 998
Banning, CA 92220

Re: Budget for Chromium 6 Treatment and Compliance Study Proposal

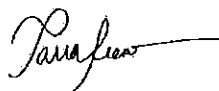
To whom it may concern,

Corona Environmental Consulting, LLC (Corona), with support from Wood Rodgers, is pleased to submit this budget proposal to the City of Banning for professional services related to the proposed treatment and compliance study for Chromium 6. The not-to-exceed budget for these tasks is \$49,110, inclusive of labor and other direct costs for travel to be billed monthly on a lump-sum, percent-complete basis.

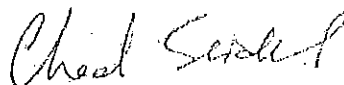
		Corona			ACE	Wood Rodgers					
		Seidel/ Henrie	Gorman	Direct Costs	Site drawings	Ernst	Kyle	Assoc. Geol. I	Geologist III	Geologist I	Project
Task	Description	\$225	\$175			\$220	\$170	\$150	\$145	\$120	Total
0	Project Management	8	4								\$ 2,500
1	Alternatives Analysis and Conceptual Plan	56	80	\$ 2,470	\$ 3,500	2	24	16	16	40	\$ 46,610
1.1	Project Workshop and Well Site Visits	16	16	\$ 1,820							
1.2	Confirmation of Water Supply Needs	8	8								
1.3	Cr(VI) Compliance Assessment	16	48		\$ 3,500	2	24	16	16	40	
1.4	Recommendation Workshop	16	8	\$ 650							
Total		64	84	\$ 2,470		2	24		16	40	\$ 49,110

We look forward to providing the City with these services. Please do not hesitate to contact Tarrah Henrie (Cell: 510.579.9174; email: thenrie@coronaenv.com) if you should have any questions or wish to discuss this proposed scope further.

Very truly yours,



Tarrah Henrie
Water Process Scientist
Corona Environmental Consulting, LLC



Chad Seidel, Ph.D., P.E.
Vice President
Corona Environmental Consulting, LLC

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Exhibit “E”
Request for Proposals (RFP)

Request for Proposals (RFP)
Chromium-6 Treatment and Compliance Study



Responses Due:
City of Banning
Public Works Department
99 E. Ramsey Street
Banning, CA 92220
(951) 922-3130

September, 2015

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1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION AND OBJECTIVES

The City of Banning is soliciting proposals from qualified consultants to provide professional engineering services for the development of a Chromium-6 Treatment and Compliance Study (Study) including preliminary design and cost estimates.

Effective July 1, 2015, the California Department of Public Health (CDPH) adopted the final drinking water Maximum Contaminant Level (MCL) for Chromium-6 at 10 parts per billion (ppb) as approved by the Office of Administrative Law on May 28, 2014. Up to seven (7) of the City of Banning's operating wells do not meet the final MCL.

The selected consultant shall analyze and report to the City the most efficient and effective method for complying with the final Chromium-6 MCL. The methods analyzed shall include blending, well head treatment (localized and regional treatment facilities), well modifications or a combination of these methods. The study shall also analyze the costs and benefits of removing co-occurring constituents, when found at levels of concern in local groundwater.

Proposals shall demonstrate the qualifications, competence, and capacity of the Consultant to perform the work and provide the engineering services described in this RFP.

The successful Consultant will be expected to execute the Professional Services Agreement included with this RFP.

1.2 BACKGROUND INFORMATION

The City of Banning, incorporated in 1913, covers approximately 23.2 square miles located in the San Geronimo Pass area of Riverside County, approximately 30 miles east of the cities of San Bernardino and Riverside. The 2014 U.S. Census Bureau Community Survey recorded a population of 30,325 for the City of Banning. It is estimated that the population will increase by approximately 2% per year. The City of Banning owns and operates the water system which collects 100% of the water that it supplies from local groundwater aquifers. It currently operates 21 active ground water production wells and co-owns 3 production wells with the Beaumont Cherry Valley Water District (total of 24 active wells). The 24 wells have a design capacity of 24,300 gallons per minute (GPM). The City facilities also include 11 storage tanks with a total storage capacity of 18.4 million gallons (MG). In 2014 the City produced and provided approximately 8,500 acre-feet. Water service is provided to the entire City as well as unincorporated areas of the county that bound the south and north City limits.

Chromium-6 occurs naturally in the City of Banning groundwater due to erosion of sediments at levels above the final MCL of 10 ppb. Seven of the City's wells currently exceed the final MCL for Chromium-6 (see Exhibit "A" for concentrations and locations).

The study will require the Consultant to develop a strategy to comply with the final Chromium-6 MCL, including a time table and cost estimates for design and construction of the recommended treatment facilities. The study shall also analyze the costs and benefits of removing co-occurring constituents, when found at levels of concern in local groundwater.

2.0 SCOPE OF WORK

The scope of work that follows contains a general outline of the required tasks. Proposals submitted should include a detailed all-inclusive scope of work.

2.1 TASK 1: PROJECT MANAGEMENT, COMMUNICATION AND MEETINGS

- A. Project Manager: Consultant shall assign a project manager that will be the point of contact and coordinate all communication with the City.
- B. Project Kick-off Meeting and Review: Meet with the City staff to discuss study parameters, site-specific conditions, project goals, and latest developments. Obtain information as necessary to support the document preparation.
- C. Project Schedule, Status report and Monthly Progress Meetings: Consultant shall submit an initial schedule with milestones using the latest version of MS Project. The schedule shall be updated monthly and shall be provided at monthly Progress Meetings attended by Consultant's Project manager. An Agenda shall be provided by Consultant a minimum of five (5) working days prior to the meeting date. Monthly Progress Meetings shall occur for the duration of the project unless noted otherwise by the City. Meeting minutes shall be prepared and submitted within five working days after the meeting(s).

2.2 TASK 2: DATA COLLECTION AND PRE-STUDY ANALYSIS

- A. Site Survey and Site Visit: Conduct a site visit to identify potential locations for treatment facilities within the City of Banning.
- B. Water Demand Analysis: Review and evaluate the City of Banning's latest Water Master Plans and provide recommended design analysis for Chromium-6 treatment under built-out conditions.
- C. Water Quality Testing: Coordinate water quality testing with the City staff as required for study. All water quality samples shall be collected by the City; testing shall be performed by a certified laboratory, with lab costs paid separately by the City.

2.3 TASK 3: EVALUATE TREATMENT ALTERNATIVES

A. Treatment Analysis:

a. *Blending Evaluation:*

- i. Provide analysis for blending facilities.
- ii. Identify required infrastructure.

b. *Well Head Treatment Evaluation:*

i. Ion Exchange (SBA and WBA)

1. Pre-treatment and post-treatment
2. Constituent removal effectiveness
3. Residual management

ii. Reduction Coagulation Filtration (conventional and microfiltration)

1. Pre-treatment and post-treatment
2. Constituent removal effectiveness
3. Residual management

iii. Evaluate Reverse Osmosis

1. Pre-treatment and post-treatment
2. Constituent removal effectiveness
3. Residuals management

iv. Evaluate Biological Reactor (fixed bed, fluidized bed, and membrane)

1. Pre-treatment and post-treatment
2. Constituent removal effectiveness
3. Residual management

v. Evaluate Brine Treatment Alternative & Hybrid Treatment Systems (includes biological, catalytic and electrochemical brine treatment)

1. Pre-treatment and post-treatment
2. Constituent removal effectiveness
3. Residual management

c. *Well Modifications*

1. Analyze the potential for performing dynamic well profiling to determine the potential for blanking off section of well screen in order to reduce intrusion of Chromium-6.

B. System Operation Evaluation: Provide analysis for headloss through treatment system, system capacity, waste disposal and frequency, chemical use, energy cost, filter run time, and equipment longevity.

C. Infrastructure Site Analysis: Evaluate public right-of-way and easements required to locate waterlines, conveyance facilities, and potential sites for all recommended Chromium-6 treatment facilities.

D. Cost Analysis: Provide a preliminary cost analysis and engineer's estimate to design, construct and operate the treatment facilities.

- E. Facilities Schematic: Provide an 11" X 17" (or larger) conceptual layout depicting the location of all potential facilities including, but not limited to, connection location, conveyance facilities and treatment facilities for the recommended treatment option.

2.4 TASK 4: PREPARE CHROMIUM-6 TREATMENT AND COMPLIANCE STUDY

Chromium-6 Treatment and Compliance Study: Prepare the study to summarize the information from Tasks 1 through 3. The study will be used as a basis to consider the design and construction of the Chromium-6 treatment facilities. Meet with the City staff to discuss and review comments. Assume a minimum of one meeting to review the draft submittal, one meeting to review the final submittal, and two additional meetings to provide support at city council meetings.

3.0 CONSULTANT QUALIFICATIONS

3.1 QUALIFICATIONS AND UNDERSTANDING

Each Consultant must provide the following information about their company so the City can evaluate the Consultant's stability and ability to support the commitments set forth in response to the RFP. It is imperative the Consultant's proposal fully address all aspects of the RFP. The proposal must provide the City Staff with clearly expressed information concerning the Proposer's understanding of the City's specific requirements which would result in the conduct of this study in a thorough and efficient manner.

The Consultant shall outline their company's (or team's) background, including:

- How long the company has been in business, plus a brief description of the company history, size and organization.
- Consultant qualifications to complete the scope of services and a statement of understanding of the work involved to complete this assignment.

3.2 PROJECT TEAM

Each Consultant must provide the following information about their project team.

- Primary point of contact, person responsible for overall corporate commitment (must be a company principal or officer) and project manager. Describe the responsibilities of the individuals and extent of involvement with the project.
- Identify and list key individuals proposed for the project team. Describe the responsibilities of the individuals and extent of involvement with the project.
- All key personnel listed should have current names, titles and telephone numbers and be listed on at least one of the supplied client references who are familiar with work performed by the individual in a similar capacity. References will be contacted as part of the selection process.

- Clearly identify project sub consultants, how long the prime and sub have worked together and the reason why they were selected. Consultants are encouraged to support small businesses where ever possible.

3.3 REFERENCES

The Consultant shall supply a minimum of 3 references from agencies with projects of similar nature. Each reference shall contain:

- Client name and contact information
- Project description
- Role of key project team members.

Only references of the prime consultant shall be considered, or references from project teams that have completed at least 3 projects together. The Consultant shall also list projects completed for other agencies.

3.4 SCHEDULE

The consultant shall provide a project schedule indicating key project milestones and project activities. The schedule shall reflect a tentative start date of November 30, 2015.

3.5 WORKSHOPS AND MEETINGS

See Section 2.1, Task 1.

4.0 PROPOSAL SUBMISSION

4.1 RFP TIME SCHEDULE

- | | |
|----------------------------------|----------------------------|
| • Request for Proposal Available | Tues, September 8, 2015 |
| • Inquiry Deadline | Thurs., September 24, 2015 |
| • Proposals Due | Tues, September 29, 2015 |
| • Final Selection | Thurs. October 15, 2015 |
| • City Council Recommendation | Tues., October 27, 2015 |
| • Notice to Proceed (Tentative) | Mon., November 30, 2015 |

4.2 NUMBER OF COPIES AND DELIVERY

Four (4) copies of the proposal shall be submitted to the following address:

**City of Banning
City Clerk's Office
99 E. Ramsey Street
P.O. Box 998
Banning, CA 92220**

The proposal title, consultants name and deadline information shall be clearly identified on the submission package and cover page. Submission deadline is Tuesday, September 29, 2015 at 5:00 p.m. Proposals submitted after that time shall not be considered. All questions regarding the scope of work shall be submitted to Holly Stuart, Management Analyst at the address above or via e-mail at hstuart@ci.banning.ca.us.

4.3 FORMAT AND CONTENT

Proposals shall be printed on 8 ½" X 11" paper, single sided in a 10 point Arial font and be limited to 25 pages excluding the cover letter, resumes and any appended information.

Proposals should address the following items in order of appearance:

Cover letter

The cover letter shall be provided which explains the firm's interest in the project. The letter shall contain name/address/phone number of the person who will serve as the firm's principal contact person.

Qualifications of Firm/Project Team

Provide names, titles and responsibilities of key personnel who will be responsible for the management of the project. Include qualifications, resumes, experience of each, and length of time with the company.

References

Give at least three (3) references for projects of similar size and scope, including at least three (3) references for projects completed during the past five years. Include the name and organization, a brief summary of the work, the cost of the project and the name and telephone number of a responsible contact person.

Strategy and Implementation Plan

Prepare a list of tasks to address the Scope of Work. Describe the firm's interpretation of the City's objectives with the regard to this RFP. Describe the proposed strategy and/or plan for achieving the objectives of the RFP. The narrative should include a description of the logical progression of tasks and efforts. Also include an explanation of the type of technology that will be used. This section shall also include a time schedule for the completion of the project and an estimate of time commitments from City staff.

Proposed quality assurance program (QA/QC)

Explain the firm's quality assurance program and the proposed approach for implementing the plan with this project.

Fee Proposal: One set in a separate sealed envelope

The Fee Schedule in a separate envelope shall be broken down on separate sheets as follows:

- A "Not to Exceed" fee for all services. Man-hours and billing rates per classification of personnel will be indicated for each task and/or subtask.
- Provide a complete list of costs per task and/or subtask and a total fee for the proposal, including expected reimbursable expenses (non-binding), for completion of the scope of services set forth in the proposal.
- A current hourly Fee Schedule for Fiscal Year 2015/2016 and classification of personnel for the firm, along with the type of work they and any sub consultants will perform, is also required.
- All printing and reproduction costs, research, meetings, mileage, telephone usage, general office supplies and overhead, etc., shall be included in the proposal and its "Not to Exceed" Fee schedule. Proposals should be prepared in a straight forward manner.

4.4 PROPOSAL EVALUATION

Proposals will be evaluated based on the following criteria:

- Responsiveness to the RFP.
- Consultant qualifications, project understanding, and overall experience.
- Technical Competency.
- Results of reference checks.
- Project Schedule.
- Proposed QA/QC plan.
- Proposal Fee.

4.5 NEGOTIATIONS

In an effort to manage the resources available for this project, the City may find it necessary to negotiate tasks, include contingencies for additional meetings or workshops, and address other factors identified by the Proposer not contemplated in this document or the City's standard agreement.

5.0 CONTRACT REQUIREMENTS AND SUBMITTALS

5.1 CITY OF BANNING REQUIREMENTS

The Contract will be presented to Council for approval. Please provide a copy of the attached City agreement to your legal team and insurance provider, if you are selected for Final Evaluation. This will expedite the process. A purchase order will not be granted until the contract is signed and all insurance requirements are satisfied.

Exhibit "A"
Concentrations and Locations

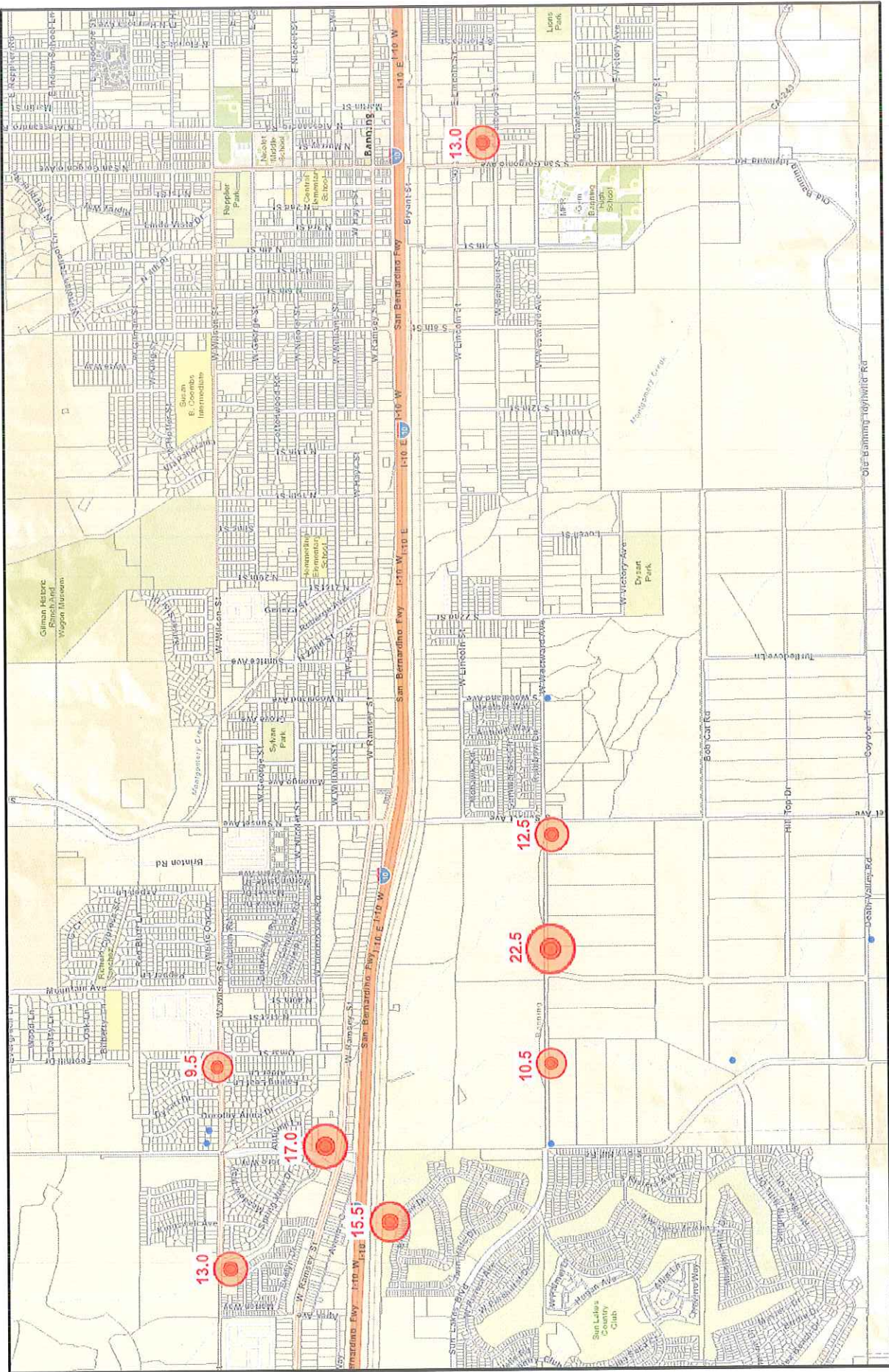


Exhibit “F”
Committee Evaluation Forms

**CHROMIUM-6 TREATMENT AND COMPLIANCE STUDY
SUMMARY OF PROPOSAL EVALUATIONS**

	Hazen and Sawyer	TKE Engineering, Inc.	Engineering Resources of Southern California, Inc.	Corona Environmental Consulting
Evaluator #1	440	350	370	400
Evaluator #2	410	390	410	370
Evaluator #3	430	395	370	345
Evaluator #4	440	365	365	355
Total Score	1720	1500	1515	1470
Average Score	430.0	375.0	378.8	367.5
Cost	\$ 89,630.00	\$ 140,966.00	\$ 71,036.00	\$ 49,110.00

Corona Environmental Consulting of Newark, California

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: Corona Environmental Consulting

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - excellent - Time commitment of key members - Organizational Chart- DID NOT SUPPLY	10	9	90	Excellent staff experience with Chromium 6. One PhD on project team who has written Chr related technical papers. The team has worked on 5 Chromium 6 projects.
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	9	90	Worked on the evaluation and design for Chromium 6 compliance with 7 wells for the CA American Water; assessment of 8 wells and pilot study for City of Watsonville, CA; well modification evaluation for several wells for Indio Water Authority.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely Completion- NO QA/QC INCLUDED - Provided a Project Schedule- YES - Included innovative approaches- YES	15	9	135	Addressed the RFP, except for the QA/ QC plan and included detailed explanations and diagrams of the treatment processes and pros and cons. Included Water Quality data for Banning and referenced City's unique issues within their proposal and options.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	8	40	Firm is located in Newark, Ca which is not as close in proximity as the other proposers.
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Demonstrated that they can perform similar work in 5 Chromium projects.
GENERAL NOTES: Very good proposal, with well qualified staff and excellent experience. Included good background information on the City's water quality data and how it will impact this project.		TOTAL		400	

NAME: Ann Marie Loconte, P.E.
 TITLE: Associate Civil Engineer
 DATE: 10/9/15

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: CORONA ENVIRONMENTAL CONSULTING, COLORADO

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members - Organizational Chart	10	8	80	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies ✓ - Staff availability - Ability to meet City's insurance requirements	10	6	60	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. ✓ - Firm location (work done) & accessibility to City staff. ?	5	8	40	NEWARK CA LOCATED IN COLORADO
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget. ✓ ?	5	8	40	check References
GENERAL NOTES: 2 PIECE / NOT A SINGLE PROPOSAL.		TOTAL		370	
PRICE PROPOSAL OPENED, INCLUDED. REVIEWER DID NOT CONSIDER. 2 Sub Consultants					
NAME: MARGARET MONSON		TITLE: ASSOC. ENG		DATE: 10/6/15	

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: *Copora Environmental Consulting*

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ? - Organizational Chart ?	10	7	70	Project schedule not detailed
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ? - Quality and cost control procedures/policies ? - Staff availability ? - Ability to meet City's insurance requirements ?	10	6	60	Concurrent projects not listed.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule — - Included innovative approaches ✓	15	9	135	Project schedule not detailed.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	7	35	Time and budgets not discussed.
GENERAL NOTES:		TOTAL		345	

NAME: *Ken Bailey* TITLE: *Assist. Eng.* DATE: *10/6/15*

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: CORONA

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart	10	7	70	Formal ORG CHART
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	6	60	ON GOING Proj & PRIORITIES COST CONTROL procedures INSURANCE?
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	150	Proj SCHEDULE Time Completion?
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	8	40	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	7	35	BUDGET & Timing
GENERAL NOTES:		TOTAL		355	
NAME: <u>ROD GRIDER</u> TITLE: <u>ENGINEER</u> DATE: <u>10/2/15</u>					

**Engineering Resources of Southern California, Inc.
of San Bernardino, California**

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: Environmental Resources of Southern California, Inc.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - excellent - Time commitment of key members - Organizational Chart- INCLUDED	10	8	80	Good staff experience with Chromium 6. Two PhDs on project team with groundwater and Chromium 6 treatment experience. The team has worked on 4 Chromium 6 projects- 2 were blending
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	8	80	Worked on the Draft Blending Plan for 29 Palms Water District, and currently blending plan and design for Phelan-Pinon Hills. Two consultants specializing in groundwater and water chemistry on team.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely Completion- NO QA/QC INCLUDED - Provided a Project Schedule- YES - Included innovative approaches- YES	15	8	120	Addressed the RFP, except for the QA/ QC plan and included detailed explanations and diagrams of the treatment processes and pros and cons. Did not Include Water Quality data for Banning or referenced City's unique issues.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	Firm is located in San Bernardino and appears to be responsive.
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Demonstrated that they can perform similar work in 4 Chromium and 2 Uranium projects.
GENERAL NOTES: Very good proposal, with well qualified staff and experience for water well projects. Did not include background information on the City's water quality data and how it will impact this project. Staff has less Chromium 6 experience than two of the other firms.		TOTAL		370	

NAME: Ann Marie Loconte, P.E.
 TITLE: Associate Civil Engineer
 DATE: 10/9/15

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: ENGINEERING RESOURCES OF Southern Calif., INC.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ✓	10	10	100	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related ✓ projects - Management/Organizational capabilities ✓ - Impacts of other on-going projects and ? priorities - Quality and cost control procedures/policies ? - Staff availability ? - Ability to meet City's insurance requirements ?	10	7	70	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely ✓ completion - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City ? requirements. - Firm location (work done) & accessibility to ✓ City staff.	5	8	40	ANAHEIM PASADENA SAN BERNARDINO
5	REFERENCES - Record of producing a quality product on ✓ similar projects on time and within budget.	5	10	50	
GENERAL NOTES: 2 SUB-CONSULTANTS		TOTAL		410	
COST PROPOSAL NOT EVALUATED BY REVIEWER.					
NAME: MARGARET TITLE: ASSOC. DATE: 10/5/15 MONSON ENG.					

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: Engineering Resources of Southern California, Inc.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members - Organizational Chart ✓	10	9	90	Schedule not detailed
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ✓ - Quality and cost control procedures/policies ? - Staff availability ? - Ability to meet City's insurance requirements ?	10	6	60	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	9	135	Project schedule not detailed
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	8	40	Budgets not discussed
GENERAL NOTES:		TOTAL		370	
NAME: Ken Bailey TITLE: Asst. Eng. DATE: 10/6/15					

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: Engineering Resources of Southern Calif

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart	10	8	80	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities? - Quality and cost control procedures/policies? - Staff availability? - Ability to meet City's insurance requirements?	10	7	70	Cost Control Insurance Impact other projects
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	9	135	Proj Schedule
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	7	35	Proj Time Budget
GENERAL NOTES: 2- SUB CONSULTANTS		TOTAL		365	
NAME: Ron Grider TITLE: Engineer DATE: 10-7-15					

Hazen and Sawyer of Palm Desert, California

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: Hazen and Sawyer

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart- INCLUDED	10	10	100	Excellent staff experience with Chromium 6. Two PhDs on project team. The team has worked on 6 Chromium 6 projects.
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	10	100	Worked on the evaluation and design for Chromium 6 compliance with 30 wells for the CVWD; design and construction of 3 Chromium facilities after evaluating 6 well sites for compliance and treatment with Indio Water Authority.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely Completion- YES QA/QC INCLUDED - Provided a Project Schedule- YES - Included innovative approaches- YES	15	10	150	Addressed all of the RFP, including photos and detailed explanations of the treatment processes and pros and cons. Included Water Well information for Banning and referenced City's unique issues within their proposal.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	Firm is located in Palm Desert and has additional senior staff in Los Angeles.
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Demonstrated that they can perform similar work in 6 Chromium projects.

GENERAL NOTES:

Excellent proposal, the best overall I feel. All of the items of the RFP were addressed very well and they used diagrams to clearly explain the treatment options. Excellent experience and project team.

TOTAL

440

NAME: Ann Marie Loconte, P.E.

TITLE: Associate Civil Engineer

DATE: 10/9/15

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: HAZEN AND SAWYER

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ✓	10	10	100	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ? - Quality and cost control procedures/policies ✓ - Staff availability - Ability to meet City's insurance requirements ?	10	7	70	LOCAL PROJECTS LOCAL AGENCIES
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	8	40	PALM DESERT
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget. ✓	5	10	50	
GENERAL NOTES:		TOTAL		410	

FEE PROPOSAL OPENED & INCLUDED, NOT EVALUATED BY REVIEWER.

NAME: MARGARET MONSON TITLE: ASSOC. ENG. DATE: 10/5/15

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: Hazen and Sawyer

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ✓	10	10	100	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ? - Quality and cost control procedures/policies ✓ - Staff availability ✓ - Ability to meet City's insurance requirements?	10	9	90	Has a quality assurance program
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. ✓ - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Budgets not discussed
GENERAL NOTES:		TOTAL		430	
NAME: Ken Bailey TITLE: Asst. Eng. DATE: 10/6/15					

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: HAZEN

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart	10	10	100	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	10	100	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Budget
GENERAL NOTES: Followers Proposal Format Very well Project Team Strengths		TOTAL		440	
NAME: Ron Bruner TITLE: ENGINEER DATE: 10-7-15					

TKE Engineering, Inc. of Riverside, California

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: TKE Engineering, Inc.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - excellent - Time commitment of key members - Organizational Chart- NOT INCLUDED	10	7	70	Some staff experience with Chromium 6. The team has worked on one Chromium 6 project and one peer review.
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	7	70	Worked on one Chromium 6 compliance study for Mission Springs Water District and one peer review for a treatment and compliance study for Coachella Water Authority. Excellent water supply design experience.
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely Completion- QA/QC INCLUDED - Provided a Project Schedule- YES - Included innovative approaches- YES	15	8	120	Addressed all the elements of the RFP, and included very detailed explanations and of the treatment processes and pros and cons. Did not Include Water Quality data for Banning or referenced City's unique issues.
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	Firm is located in Riverside and appears to be responsive.
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	9	45	Demonstrated that they can perform similar work in 1 Chromium 6 compliance study and 1 peer review of another consultant's work.
GENERAL NOTES: Very good proposal, with well qualified staff and experience for water supply projects. Staff has less Chromium 6 experience than the other firms.		TOTAL		350	
NAME: <u>Ann Marie Loconte, P.E.</u> TITLE: <u>Associate Civil Engineer</u> DATE: <u>10/9/15</u>					

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: TKE RIVERSIDE

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ? - Organizational Chart ?	10	9	90	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related ✓ projects - Management/Organizational capabilities ? - Impacts of other on-going projects and ? priorities - Quality and cost control procedures/policies ✓ - Staff availability - Ability to meet City's insurance requirements ?	10	6	60	1 SIMILAR Cr6 project
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely ✓ completion - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to ✓ City staff.	5	8	40	RIVERSIDE, CA
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	10	50	
GENERAL NOTES:		TOTAL		390	

COST PROPOGAL NOT EVALUATED BY REVIEWER.

NAME: MARGARET M. MONSON TITLE: ASSOC. ENGINEER DATE: 10/5/15

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: TKE Engineering, Inc.

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience ✓ - Qualifications of key ✓ - Time commitment of key members ✓ - Organizational Chart ?	10	9	90	
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects ✓ - Management/Organizational capabilities ✓ - Impacts of other on-going projects and priorities ? - Quality and cost control procedures/policies ✓ - Staff availability ✓ - Ability to meet City's insurance requirements ?	10	7	70	
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required ✓ - Provided an explanation of the project ✓ - Showed familiarity with project area and issues ✓ - Logical course of action to meet goal ✓ - Had internal measures proposed to meet timely completion ✓ - Provided a Project Schedule ✓ - Included innovative approaches ✓	15	10	150	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	9	45	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget. ?	5	8	40	Budget not discussed
GENERAL NOTES:		TOTAL		395	

NAME: Ken Bailey TITLE: Assist. Eng. DATE: 10/6/15

CONSULTANT EVALUATION

Project: Chromium-6 Treatment and Compliance Study

Consultant: TKE

NO	CRITERIA	WEIGHT	SCORE (1 to 10)	SCORE (Wt x Score)	COMMENTS
1	PROJECT TEAM - Qualifications/Relevant Individual Experience - Qualifications of key - Time commitment of key members - Organizational Chart	10	8	80	CRG Client Time Commitment Few team members expressed
2	FIRM'S CAPABILITIES - Demonstrated capability on similar/related projects - Management/Organizational capabilities - Impacts of other on-going projects and priorities - Quality and cost control procedures/policies - Staff availability - Ability to meet City's insurance requirements	10	7	70	Lacking CRG Exp
3	PROJECT UNDERSTANDING AND APPROACH - Demonstrated knowledge of the work required - Provided an explanation of the project - Showed familiarity with project area and issues - Logical course of action to meet goal - Had internal measures proposed to meet timely completion - Provided a Project Schedule - Included innovative approaches	15	9	135	
4	PROJECT CONTROLS OF OVERSIGHT - Ability to the timely response to City requirements. - Firm location (work done) & accessibility to City staff.	5	8	40	
5	REFERENCES - Record of producing a quality product on similar projects on time and within budget.	5	8	40	Budget
GENERAL NOTES:		TOTAL		365	
NAME: <u>ROJ GRIDIER</u> TITLE: <u>ENGINEER</u> DATE: <u>10-7-15</u>					

Exhibit “G”
Hazen and Sawyer Fee Schedule

Fee Estimate City of Banning

September 29, 2015

	VP	SA	SPE	PE	AE	Des	Total Hours	Fee Labor
Hourly Rate =	\$275	\$235	\$165	\$140	\$120	\$115		
Task								
QA/QC								\$3,300
QA/QC Reviews	12						12	\$3,300
TASK 1 - PROJECT MANAGEMENT, COMMUNICATION, AND MEETINGS								\$17,860
Project Management			40				40	\$6,800
Meetings								
Kick-Off	2		2		2		6	\$1,120
Progress Meetings	8		16		16		40	\$6,760
Decision Workshop	4		8		8		20	\$3,380
TASK 2 - DATA COLLECTION AND PRE-STUDY ANALYSIS								\$10,595
Task 2.1 - Site Visits, Data Collection, and Review			8		40		48	\$6,120
Task 2.2 - Capacity Analysis	1		8		24		33	\$4,475
TASK 3 - EVALUATE TREATMENT ALTERNATIVES								\$38,145
Task 3.1 - Site and Size Treatment Facilities			8		20		28	\$3,720
Task 3.2 - Well Modifications	1		8		16		25	\$3,515
Task 3.3 - Operations Summary	2		12		40		54	\$7,330
Task 3.4 - Infrastructure Site Analysis	2		4		16		22	\$3,130
Task 3.5 - Cost Analysis	2		12	24	40		78	\$10,690
Task 3.6 - Technology Selection and Facilities Schematic			8		32	40	80	\$9,760
TASK 4 - PREPARE CR6 TREATMENT AND COMPLIANCE STUDY								\$15,990
Task 4.1 - Draft Memorandum	4		20		40		64	\$9,200
Task 4.2 - Final Memorandum	2		16		30		48	\$6,670
TOTALS	40	0	170	24	324	40	586	\$85,890

ALLOWANCE FOR OTHER OPTIONAL SERVICES (not included in grand total)

Hydraulic modeling of SSWD system	4	16	20	120			160	\$24,960
Permitting with DDW	8		24				32	\$6,160
Funding Application Assistance	8		40				48	\$8,800

Hazen and Sawyer Labor Classifications

VP - VP / Project Principal / QA/QC
 A - Associate / Project / Technical Manager
 SPE - Senior Principal Engineer
 PE - Engineer / Cost Estimator
 AE - Assistant Engineer
 Des - CAD Designer/Modeler
 Tech - Technician

Subconsultant	Total \$
None	\$ -
Total	\$ -

Expenses	Unit	Unit Cost	Total \$
Mileage	1,150	\$0.575	\$670
Other Travel	\$1,200	1s	\$1,200
Other Direct Costs Subtotal			\$1,870
Grand Total (Labor + Sub + ODCs)			\$87,760

**Hourly Fee Schedule for Fiscal Year 2015/2016
Chromium-6 Treatment and Compliance Study
City of Banning
September 29, 2015**

Hazen

ROLE	BILLING RATE
Vice President	275
Senior Associate	235
Associate	200
Sr. Principal Engineer	165
Principal Engineer	140
Engineer	130
Assistant Engineer	120
Technician	115
Administrator	90

CITY COUNCIL/BANNING UTILITY AUTHORITY AGENDA

Date: Oct. 27, 2015

TO: Banning Utility Authority

FROM: Art Vela, Interim Director of Public Works

SUBJECT: Resolution No. 2015-17UA , “Approving an Amendment to the Professional Services Agreement with E. S. Babcock & Sons, Inc. of Riverside, California”

RECOMMENDATION: That the Banning Utility Authority adopt Resolution No. 2015-17UA, approving a Professional Services Agreement with E.S. Babcock & Sons, Inc. (“E.S. Babcock”) of Riverside, California in the amount not-to-exceed \$65,000.00 for analytical testing services.

JUSTIFICATION: Analytical services are necessary in order to meet the requirements of the State of California Regional Water Control Board Division of Drinking Water and Environmental Management.

BACKGROUND: On August 12, 2014 City Council approved Resolution No. 2014-08UA, “Approving a Professional Services Agreement with E.S. Babcock & Sons, Inc. of Riverside, California”, attached as Exhibit “A”. The scope of services provided to the City include analytical testing of water quality in groundwater wells, domestic water distribution systems as well as sanitation water, bio-solids/sludge and soil samples.

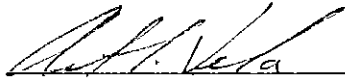
E.S. Babcock has continued to provide the City with excellent service. Staff recommends the approval of an amendment to the Professional Services Agreement with E.S. Babcock for an additional year as allowed by Resolution No. 2014-08UA and only if approved by City Council.

If approved, the second year will be the last allowable extension to the contract with E.S. Babcock. Staff will advertise a Request for Proposals in order to enter into an agreement with a consultant to provide the needed services for future years.

FISCAL DATA: The Professional Services Agreement is for an amount “not to exceed” \$65,000.00. The agreement will be funded by Account No. 660-6300-471.23-32, (Contractual Services/Laboratory Services; Water Fund) in the amount of \$55,000.00 and Account No. 680-8000-454.23-32 (Laboratory Services; Wastewater Fund) in the amount of \$10,000.00.

SIGNATURES ON NEXT PAGE

RECOMMENDED BY:



Art Vela,
Acting Director of Public Works

REVIEWED/APPROVED BY:



Dean Martin,
Interim City Manager
Administrative Services Director

Attachment:

1. Exhibit "A": Resolution No. 2014-08UA

RESOLUTION NO. 2015-17UA

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BANNING,
CALIFORNIA APPROVING AN AMENDMENT TO THE PROFESSIONAL
SERVICES AGREEMENT WITH E. S. BABCOCK & SONS, INC. OF RIVERSIDE,
CALIFORNIA**

WHEREAS, the State of California Regional Water Control Board Division of Drinking Water and Environmental Management ("CRWCB") has mandated water sampling and laboratory testing of all public water systems in the State of California; and

WHEREAS, the City of Banning obtains over 1500 water samples annually and submits them for laboratory testing to comply with the CRWCB's requirements; and

WHEREAS, on August 12, 2014 City Council approved Resolution No. 2014-08UA, "Approving a Professional Services Agreement with E.S. Babcock & Sons, Inc. of Riverside, California", attached as Exhibit "A"; and

WHEREAS, the scope of services provided to the City include analytical testing of water quality in groundwater wells, domestic water distribution systems as well as sanitation water, bio-solids/sludge and soil samples; and

WHEREAS, E.S. Babcock has continued to provide the City with excellent service and therefore staff recommends the approval of an amendment to the Professional Services Agreement with E.S. Babcock for an additional year as allowed by Resolution No. 2014-08UA and only if approved by City Council; and

WHEREAS, the Professional Services Agreement is for an amount "not to exceed" \$65,000.00 which will be funded by Account No. 660-6300-471.23-32, (Contractual Services/Laboratory Services; Water Fund) in the amount of \$55,000.00 and Account No. 680-8000-454.23-32 (Laboratory Services; Wastewater Fund) in the amount of \$10,000.00.

NOW, THEREFORE BE IT RESOLVED by the Banning Utility Authority as follows:

SECTION 1. The Banning Utility Authority adopts Resolution No. 2015-17UA, approving an amendment to the professional services agreement with the E.S. Babcock of Riverside, California in the amount not-to-exceed \$65,000.00.

SECTION 2. The Interim Administrative Services Director is authorized to make necessary budget adjustments and appropriations and transfers related to the amendment.

SECTION 3. The Interim City Manager is authorized to execute the amendment with E.S. Babcock of Riverside, California.

PASSED, APPROVED, AND ADOPTED this 27th day of October, 2015.

Deborah Franklin, Chairman
Banning Utility Authority

ATTEST:

Marie A. Calderon, Secretary

**APPROVED AS TO FORM
AND LEGAL CONTENT:**

David J. Aleshire, Authority Counsel
Aleshire & Wynder, LLP

CERTIFICATION:

I, Marie A. Calderon, Secretary to the Banning Utility Authority of the City of Banning, California, do hereby certify that the foregoing Resolution No. 2015-17UA, was duly adopted by the Banning Utility Authority of the City of Banning, California, at its regular meeting held the 27th day of October, 2015, by the following vote, to wit:

AYES:

NOES:

ABSTAIN:

ABSENT:

Marie A. Calderon,
City Clerk
City of Banning, California

Exhibit “A”
Resolution No. 2014-08UA

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CITY COUNCIL/BANNING UTILITY AUTHORITY AGENDA

Date: July 28, 2014

TO: City Council/Banning Utility Authority

FROM: Duane Burk, Director of Public Works

SUBJECT: Resolution No. 2014-08UA , "Approving a Professional Services Agreement with E. S. Babcock & Sons, Inc. of Riverside, California"

RECOMMENDATION: That the City Council/Banning Utility Authority adopt Resolution No. 2014-08UA, approving a Professional Services Agreement with E.S. Babcock of Riverside, California in the amount not-to-exceed \$75,000.00 for analytical testing services.

JUSTIFICATION: Analytical services are necessary in order to meet the requirements of the State of California Department of Public Health Services Division of Drinking Water and Environmental Management ("CDPH"). As a result of the City's Request for Proposal ("RFP") process E.S. Babcock & Sons, Inc. has been rated the highest to provide the City with the required analytical services.

BACKGROUND: The CDPH is responsible for the enforcement of the Federal and California Safe Drinking Water Acts and the regulatory oversight of public water systems to assure the delivery of safe drinking water. The CDPH prescribes regulations that limit the amount of certain contaminants in drinking water. Consequently, the City of Banning Water Division staff obtains over 1,500 water samples annually from more than 33 sample points throughout the City and submits them for laboratory testing.

On May 16, 2014 the Water Division publicly advertised a RFP to obtain proposals from environmental testing laboratories to provide analytical testing services for the testing of water quality in groundwater wells, domestic water distribution systems as well as sanitation water, bio-solids/sludge and soil samples. City staff received and evaluated two proposals and scored them as follows:

<u>Laboratory</u>	<u>Score</u>
1. E.S. Babcock & Sons, Inc., of Riverside, California	91.3
2. Clinical Laboratories of San Bernardino, California	79.7

The proposals were evaluated and scored based on specific criteria such as: how long the company has been in business, qualifications and experience in implementing an analytical testing program, costs for performing the required analytical testing, quality of services, references, and overall responsiveness to the RFP.

E.S. Babcock offers a full range of inorganic, organic and microbiological testing for drinking water supplies, per CDPH requirements, at competitive prices. Since 1928, E.S. Babcock has been certified by the CDPH for the analyses of drinking water for public health protection. Additionally, E.S. Babcock has provided satisfactory work to the City in the past and had very good recommendations from their references.

Staff feels it is prudent to select one consultant for a five year term, with a thirty (30) day termination clause and subject to an annual review of the services provided. A renewal of the Contract Agreement shall occur each year ending June 30th only if additional single years are approved by the City Council and shall terminate no later than June 30, 2019.

FISCAL DATA: A budget for analytical testing services in the amount of \$75,000.00 was included in Account No. 660-6300-471.23-32, (Contractual Services/Laboratory Services) in the approved fiscal year 2014/2015 budget.

RECOMMENDED BY:

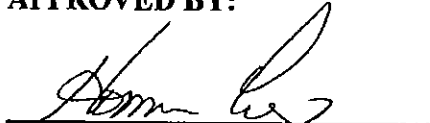


Duane Burk,
Director of Public Works

REVIEWED BY:


June Overholt,
Administrative Services Director

APPROVED BY:



Homer Croy,
Interim City Manager

RESOLUTION NO. 2014-08 UA

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BANNING, CALIFORNIA APPROVING A PROFESSIONAL SERVICES AGREEMENT WITH E. S. BABCOCK & SONS, INC. OF RIVERSIDE, CALIFORNIA, FOR THE ANALYTICAL SERVICES

WHEREAS, the City of Banning owns and operates its own water wells, water distribution system throughout the City; and

WHEREAS, the State of California Department of Public Health Services Division of Drinking Water and Environmental Management ("CDPH") has mandated water sampling and laboratory testing of all public water systems in the State of California; and

WHEREAS, the City of Banning obtains over 1500 water samples annually and submits them for laboratory testing to comply with the CDPH's requirements; and

WHEREAS, on May 16, 2014 the Water Division publicly advertised a Request for Proposals to obtain proposals from environmental testing laboratories to provide analytical testing services and received and evaluated two proposals; and

WHEREAS, E.S. Babcock and Sons, Inc. of Riverside, California was ranked the highest by the evaluation committee; and

WHEREAS, staff respectfully requests approval of the agreement with E.S. Babcock & Sons, Inc. with an option of renewing the agreement every year for a maximum of two years where said approval shall be given by City Council at the end of each term; and

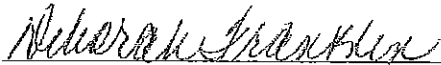
WHEREAS, a budget for analytical testing services in the amount of \$75,000.00 was included in Account No. 660-6300-471.23-32, (Contractual Services/Laboratory Services) in the approved fiscal year 2014/2015 budget.

NOW, THEREFORE BE IT RESOLVED by the Banning Utility Authority as follows:

SECTION I. The Banning Utility Authority adopts Resolution No. 2014-08UA, approving a professional services agreement with the E.S. Babcock of Riverside, California in the amount not-to-exceed \$65,000.00.

SECTION II. The City Manager is authorized to execute the contract agreement with E.S. Babcock of Riverside, California in a form approved by the City Attorney. This authorization will be rescinded if the contract agreement is not executed by the parties within sixty (60) days of the date of this resolution.

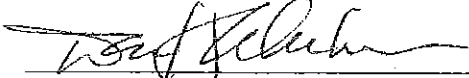
PASSED, APPROVED, AND ADOPTED this 12th day of August, 2014.


Deborah Franklin, Chairperson
City of Banning

ATTEST:


Marie A. Calderon, Secretary

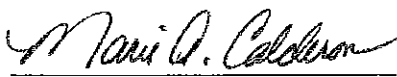
**APPROVED AS TO FORM
AND LEGAL CONTENT:**


David J. Aleshire, Authority Counsel
Aleshire & Wynder, LLP

CERTIFICATION:

I, Marie A. Calderon, Secretary to the Banning Utility Authority of the City of Banning, California, do hereby certify that the foregoing Resolution No. 2014-08UA, was duly adopted by the Banning Utility Authority of the City of Banning, California, at a regular meeting held the 12th day of August, 2014, by the following vote, to wit:

AYES:	Boardmembers Miller, Peterson, Welch, Westholder, Chairperson Franklin
NOES:	None
ABSTAIN:	None
ABSENT:	None


Marie A. Calderon, Secretary
Banning Utility Authority
City of Banning, California