



Yucaipa Valley Water District

12770 Second Street, Yucaipa, California 92399 Phone: (909) 797-5117

Notice and Agenda of a Regular Meeting of the Board of Directors

Wednesday, October 7, 2015 at 6:00 p.m.

- I. **CALL TO ORDER** - Pledge of Allegiance
- II. **ROLL CALL**
- III. **PUBLIC COMMENTS** - At this time, members of the public may address the Board of Directors on matters within its jurisdiction. To provide comments on specific agenda items, please complete a speaker's request form and provide the completed form to the Board Secretary prior to the board meeting.
- IV. **CONSENT CALENDAR** - All matters listed under the Consent Calendar are considered by the Board of Directors to be routine and will be enacted in one motion. There will be no discussion of these items prior to the time the board considers the motion unless members of the board, the administrative staff, or the public request specific items to be discussed and/or removed from the Consent Calendar.
 - A. Minutes of Meetings
 - 1. Regular Board Meeting - September 16, 2015
 - 2. Board Workshop - September 29, 2015
- V. **BOARD REPORTS**
 - A. San Gorgonio Pass Water Resource Alliance - Technical Committee and General Meeting - September 23, 2015
 - B. Reports by Board Members
- VI. **STAFF REPORT**
- VII. **DISCUSSION ITEMS**
 - A. Authorization to Participate in the Preparation of the 2015 San Bernardino Valley Regional Urban Water Management Plan [[Director Memorandum No. 15-090 - Page 16 of 58](#)]

RECOMMENDED ACTION: That the Board of Directors approves the District's participation in the 2015 San Bernardino Valley Regional Urban Water Management Plan for a sum not to exceed \$9,394.

Any person with a disability who requires accommodation in order to participate in this meeting should telephone Tysa Baeumel at (909) 797-5117 at least 48 hours prior to the meeting in order to make a request for a disability-related modification or accommodation.

Materials related to an item on this agenda submitted to the Board of Directors after distribution of the board meeting packet are available for public inspection during normal business hours at the District office located at 12770 Second Street, Yucaipa. Meeting material is also be available on the District's website at www.yvwd.dst.ca.us

- B. Award of a Contract for the Construction of the NB-12.2 Recycled Water Booster Station [[Director Memorandum No. 15-091 - Page 45 of 58](#)]

RECOMMENDED ACTION: That the Board awards a construction contract to Weka, Inc. for a sum not to exceed \$317,772.

VIII. DIRECTORS COMMENTS

IX. ANNOUNCEMENTS

- A. October 13, 2015 at 4:00 p.m. - Board Workshop
- B. October 15, 2015 at 6:00 p.m. - Recycled Water Filling Station Training Session at the Yucaipa Valley Regional Water Filtration Facility
- C. October 21, 2015 at 6:00 p.m. - Regular Board Meeting
- D. October 27, 2015 at 4:00 p.m. - Board Workshop
- E. October 28, 2015 at 6:00 p.m. - San Gorgonio Pass Regional Water Resource Alliance at the City of Banning
- F. October 29, 2015 at 6:00 p.m. - Community Water Meeting
- G. November 4, 2015 at 6:00 p.m. - Regular Board Meeting
- H. November 10, 2015 at 4:00 p.m. - Board Workshop
- I. November 18, 2015 at 6:00 p.m. - Regular Board Meeting
- J. November 24, 2015 at 4:00 p.m. - Board Workshop
- K. December 2, 2015 at 6:00 p.m. - Regular Board Meeting

X. ADJOURNMENT

Consent Calendar



Yucaipa Valley Water District

MINUTES OF A REGULAR BOARD MEETING

September 16, 2015 at 6:00 P.M.

Directors Present:

Lonni Granlund, President
Jay Bogh, Vice President
Bruce Granlund, Director
Ken Munoz, Director
Tom Shalhoub, Director

Staff Present:

Joseph Zoba, General Manager
Jack Nelson, Assistant General Manager
Vicky Elisalda, Controller

Directors Absent:

None

Consulting Staff Present:

David Wysocki, Legal Counsel

Registered Guests and Others Present:

Karen DaSilva, News Mirror
David Duron, Customer
Rich Buday, Customer
Mary Casey, Customer
David Fenn, San Gorgonio Pass Water Agency
Leonard Stevenson, San Gorgonio Pass Water Agency

The regular meeting of the Board of Directors of the Yucaipa Valley Water District was called to order by Director Lonni Granlund at 6:00 p.m. at the Administrative Office Building, 12770 Second Street, Yucaipa, California.

CALL TO ORDER

Director Tom Shalhoub led the pledge of allegiance.

FLAG SALUTE

The roll was called and Director Jay Bogh, Director Bruce Granlund, Director Lonni Granlund, Director Ken Munoz and Director Tom Shalhoub were present.

ROLL CALL

David Duron thanked the Board of Directors for conducting the public tour of the Wochholz Regional Water Recycled Facility.

PUBLIC COMMENTS

Mary Casey provided comments about the drought restrictions and the impact on families, local farming and agricultural demands on the local water supply.

Director Tom Shalhoub moved to approve the consent calendar and Director Ken Munoz seconded the motion to approve the consent calendar.

CONSENT CALENDAR

A. Minutes of Meetings

1. Regular Board Meeting - September 2, 2015
2. Board Workshop - September 8, 2015

B. Payment of Bills

1. Approve/Ratify Invoices for Board Awarded Contracts
2. Ratify General Expenses for August 2015

The motion was approved by the following vote:

Director Jay Bogh - Yes
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Ken Munoz - Yes
Director Tom Shalhoub - Yes

Reports by Board Members

- Bruce Granlund reported on the joint meeting with representatives from the Santa Ana Watershed Project Authority and the Orange County Sanitation District to tour the Yucaipa Valley Regional Water Filtration Facility and the Wochholz Regional Water Recycling Facility on September 3, 2015.
- Director Bruce Granlund provided a report about the recycled water fill station training session for residential customers held on September 3, 2015.
- Director Bruce Granlund provided a report about the San Bernardino Valley Municipal Water District - Advisory Commission on Water Policy held on September 10, 2015.
- Directors Tom Shalhoub, Jay Bogh and Lonni Granlund provided reports about the Joint Board Workshop at the Wochholz Regional Water Recycling Facility held on September 14, 2015.
- Director Tom Shalhoub reported on the Engineering Committee meeting of the San Gorgonio Pass Water Agency held on September 14, 2015.

General Manager Joseph Zoba discussed the following items:

- The District reported to the State Water Resources Control Board a reduced water usage of 26% for the month of August 2015 when compared to the amount of drinking water used in August 2013. The District also achieved a 19% use of recycled water as part of the total water demand for our service area.
- The District staff is continuing to pursue the construction and permitting of the residential recycled water fill station. The next training session will be held on September 17th at 6:00 p.m.

Following a staff presentation by Controller Vicky Elisalda, Director Bruce Granlund moved and Director Tom Shalhoub seconded a motion to receive and file the unaudited financial report.

BOARD REPORTS

STAFF REPORT

DISCUSSION ITEMS:

DM 15-083
UNAUDITED
FINANCIAL REPORT

The motion was approved by the following vote:

- Director Jay Bogh - Yes
- Director Bruce Granlund - Yes
- Director Lonni Granlund - Yes
- Director Ken Munoz - Yes
- Director Tom Shalhoub - Yes

FOR THE PERIOD
ENDING ON AUGUST
31, 2015

Following a staff presentation by General Manager Joseph Zoba, Director Tom Shalhoub moved and Director Bruce Granlund seconded a motion to award a construction contract to Weka, Inc. for a sum not to exceed \$411,536.

The motion was approved by the following vote:

- Director Jay Bogh - Yes
- Director Bruce Granlund - Yes
- Director Lonni Granlund - Yes
- Director Ken Munoz - Yes
- Director Tom Shalhoub - Yes

DM 15-084
AWARD OF A
CONTRACT FOR THE
CONSTRUCTION OF
VARIOUS RECYCLED
WATER PIPELINES
AND SERVICE
CONNECTIONS -
YUCAIPA

Following a staff presentation by General Manager Joseph Zoba, Director Ken Munoz moved and Director Jay Bogh seconded a motion to adopt: Resolution No. 2015-16 - Reimbursement Resolution; Resolution No. 2015-17 - Authorizing Resolution; and Resolution No. 2015-18 Pledged Revenues and Fund Resolution.

The motion was approved by the following vote:

- Director Jay Bogh - Yes
- Director Bruce Granlund - Yes
- Director Lonni Granlund - Yes
- Director Ken Munoz - Yes
- Director Tom Shalhoub - Yes

DM 15-085
CONSIDERATION OF
RESOLUTIONS
SUPPORTING THE
FINANCIAL
ASSISTANCE
APPLICATION WITH
THE STATE WATER
RESOURCES
CONTROL BOARD
FOR THE
CONSTRUCTION OF
THE CALIMESA
RECYCLED WATER
CONVEYANCE
PIPELINE

Following a staff presentation by General Manager Joseph Zoba, Director Tom Shalhoub moved and Director Ken Munoz seconded a motion to authorize District staff to enter into contracts with Separation Processes, DDB Engineering and RMC Water and Environment for a combined sum not to exceed \$210,739.

The motion was approved by the following vote:

- Director Jay Bogh - Yes
- Director Bruce Granlund - Yes
- Director Lonni Granlund - Yes
- Director Ken Munoz - Yes
- Director Tom Shalhoub - Yes

DM 15-086
AUTHORIZATION TO
COMPLETE AND
SUBMIT AN
APPLICATION TO THE
DEPARTMENT OF
DRINKING WATER
FOR THE RECHARGE
OF RECYCLED
WATER AT THE
WILSON CREEK
SPREADING BASINS

Following a staff presentation by General Manager Joseph Zoba, Director Ken Munoz moved and Director Tom Shalhoub seconded a motion to authorize District staff to enter into a contract with Dudek for a sum not to exceed \$38,650.

The motion was approved by the following vote:

- Director Jay Bogh - Yes
- Director Bruce Granlund - Yes
- Director Lonni Granlund - Yes
- Director Ken Munoz - Yes
- Director Tom Shalhoub - Yes

DM 15-087
GROUNDWATER AND
SURFACE WATER
MONITORING FOR
THE MAXIMUM
BENEFIT
MONITORING
PROGRAM FOR THE
SAN TIMOTEO AND
YUCAIPA
MANAGEMENT ZONES

Following a staff presentation by General Manager Joseph Zoba, Director Ken Munoz moved and Director Tom Shalhoub seconded a motion to approve Development Agreement No. 2015-09.

The motion was approved by the following vote:

- Director Jay Bogh - Yes
- Director Bruce Granlund - Yes
- Director Lonni Granlund - Yes
- Director Ken Munoz - Yes
- Director Tom Shalhoub - Yes

DM 15-088
CONSIDERATION OF
DEVELOPMENT
AGREEMENT NO.
2015-09 FOR PARCEL
MAP 19597, RELLIM,
INC. YUCAIPA
(ASSESSOR'S
PARCEL NUMBER
0321-071-01)

Following a staff presentation by General Manager Joseph Zoba, Director Bruce Granlund moved and Director Ken Munoz seconded a motion to approve Amendment No. 3 to Development Agreement No. 2012-06 for Tract No. 30386 and Development Agreement No. 2015-06.

The motion was approved by the following vote:

- Director Jay Bogh - Yes
- Director Bruce Granlund - Yes
- Director Lonni Granlund - Yes
- Director Ken Munoz - Yes
- Director Tom Shalhoub - Yes

DM 15-089
CONSIDERATION OF
AMENDMENT NO. 3
TO DEVELOPMENT
AGREEMENT NO.
2012-06 FOR TRACT
NO. 30386 WITH
HIGHPOINTE
COMMUNITIES, AND
DEVELOPMENT
AGREEMENT NO.
2015-06 WITH D. R.
HORTON FOR THE
DEVELOPMENT OF
SEVENTY-FIVE
RESIDENTIAL HOMES
WITHIN TRACT NO.
30386

There were no comments provided by the Board of Directors.

DIRECTOR
COMMENTS

Director Lonni Granlund called attention to the announcements listed on the agenda.

ANNOUNCEMENTS

The meeting was adjourned at 6:35 p.m.

ADJOURNMENT

Respectfully submitted,

Joseph B. Zoba, Secretary

(Seal)

MINUTES OF A BOARD WORKSHOP

September 29, 2015 at 4:00 P.M.

Directors Present:

Lonni Granlund, President
Jay Bogh, Vice President
Bruce Granlund, Director
Tom Shalhoub, Director

Staff Present:

Joseph Zoba, General Manager
Jack Nelson, Assistant General Manager
Brent Anton, Engineering Manager
Kevin King, Operations Manager
John Hull, Public Works Manager

Directors Absent:

Ken Munoz, Director

Consulting Staff Present:

David Wysocki, Legal Counsel

Guests and Others Present:

David Duron, Customer
Richard Siegmund, Customer
Bonnie Johnson, City of Calimesa
Bob French, City of Calimesa

- I. Call to Order - 4:00 p.m.
- II. Public Comments - General Manager Joseph Zoba recognized the members of the Board of Directors and District staff in attendance.
 - David Duron provided information about current precipitation totals in the area and information about the Yorba Linda Water District.
 - Richard Siegmund requested information about the District's standard drawings.
- III. Staff Report:
 - The District staff briefly discussed the following items:
 - A recycled water fill station training session will be conducted on Thursday, October 1, 2015 at 6:00 p.m.
 - Molly Bogh will be presenting a seminar on Life after Lawns on Saturday, October 3, 2015 at 9:00 a.m.
 - The District has received the recycled water permit for Sunshine Nursery, but this site will not be completed until Weka completes the recycled water pipeline improvements.
 - The District staff conducted a meeting with local water retailers on September 28, 2015, to discuss the proposed basin boundaries in the region pursuant to the Sustainable Groundwater Management Act.
 - The District's contractor is scheduled to begin construction on Second Street between Persimmon Avenue and Deerfield Drive on Monday, October 5, 2015.
- IV. Presentations
 - Overview of the California Drought and Yucaipa Valley Water District's Action Plan Related to the State Water Resources Control Board Mandatory Restrictions to Achieve a 36% Reduction in Potable Urban Water Use [Workshop Memorandum No. 15-186] - General Manager Joseph Zoba provided information about the

current status of the Governor's mandate to reduce water consumption in the Yucaipa Valley Water District's service area by 36%.

- Consideration of Implementing a Watershed Protection and Open Space Management Program to Protect and Enhance Local Water Resources [Workshop Memorandum No. 15-187] - General Manager Joseph Zoba provided an overview of a potential agreement with the City of Calimesa for the management of open space to facilitate stormwater capture and water quality projects.

V. Operational Updates

- Implementation of a Recycled Water Filling Station for Customers of the Yucaipa Valley Water District [Workshop Memorandum No. 15-188] - Public Works Manager John Hull provided information about the status of the recycled water filling station to be located at the Yucaipa Valley Regional Water Filtration Facility.
- Consideration of Installing a Passive Fueling Automation System for the District's Fleet of Vehicles and Construction Equipment [Workshop Memorandum No. 15-189] - Public Works Manager John Hull provided information about the passive fueling system for District vehicles and equipment.

VI. Capital Improvement Projects

- Status Report on the Construction of a 6.0 Million Gallon Drinking Water Reservoir R-12.4 - Calimesa [Workshop Memorandum No. 15-190] - Engineering Manager Brent Anton provided an overview of the Reservoir R-12.4 project construction.
- Status Report on the Digester Cleaning and Cover Replacement Project at the Wochholz Regional Water Recycling Facility [Workshop Memorandum No. 15-191] - Operations Manager Kevin King provided information on the status of the digester cover replacement project.
- Status Report on the Construction of Interim Recycled Water Booster Station NB-12.2 [Workshop Memorandum No. 15-192] - Engineering Manager Brent Anton provided an update on the proposed recycled water booster facility and the preliminary bid results received at the bid opening prior to the workshop.

VII. Administrative Items

- Issuance of a Request for Proposals for the Demolition of the Building, Basement and Foundation at 35192 Cedar Avenue, Yucaipa (Assessor Parcel Number 0303-232-17) [Workshop Memorandum No. 15-193] - General Manager Joseph Zoba provided information about the Request for Proposals for the demolition of the Cedar Avenue building and associated structures.
- Participation by the Yucaipa Valley Water District in the 2015 San Bernardino Valley Regional Urban Water Management Plan [Workshop Memorandum No. 15-194] - General Manager Joseph Zoba provided information about participation in the Regional Urban Water Management Plan.

VIII. Director Comments

- Director Bruce Granlund asked about the status and implementation of the San Juan Capistrano tiered rate case.
- Director Tom Shalhoub requested an update about the City of Beaumont.

IX. Adjournment - The meeting was adjourned at 5:55 p.m.

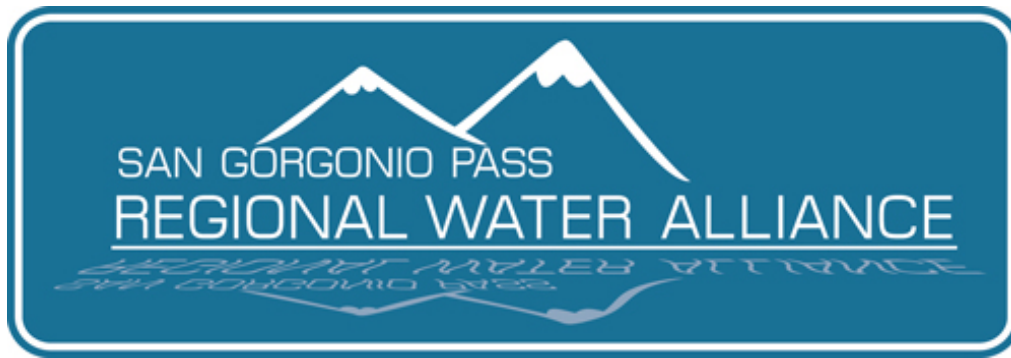
Respectfully submitted,

Joseph B. Zoba, Secretary

Board Reports



Yucaipa Valley Water District



- Revised Agenda -
Notice and Agenda of a Regular Meeting
Wednesday, September 23, 2015 at 6:00 p.m.

Banning City Hall Council Chambers
99 East Ramsey Street, Banning, California 92220

1. Call to Order
2. Public Comments
3. Approval of Minutes
 - a. Alliance Meeting Minutes - August 24, 2015
4. Presentations
 - a. Overview of Organizational Structure - Best, Best & Krieger
 - b. Member Agency Profile: Beaumont Cherry Valley Water District
5. Reports
 - a. Technical Committee Report
 - b. Sustainable Groundwater Management Plan Report
6. Discussion Items
7. Future Meeting Topics
 - a. Alliance Member Agency Profile for October 2015 - Cabazon Water District
 - b. Other Meeting Topics
8. Comments by Alliance Members
9. Announcements
 - a. Next Meeting Date: **Wednesday, October 28, 2015 at 6:00 pm**
10. Adjournment

Staff Report



Yucaipa Valley Water District

Discussion Items



Yucaipa Valley Water District



Date: October 7, 2015 **Job:** N/A

Prepared By: Jennifer Ares, Water Resource Manager **G/L:** N/A

Subject: Authorization to Participate in the Preparation of the 2015 San Bernardino Valley Regional Urban Water Management Plan

Recommendation: That the Board of Directors approves the District’s participation in the 2015 San Bernardino Valley Regional Urban Water Management Plan for a sum not to exceed \$9,394.

The 2010 San Bernardino Valley Regional Urban Water Management Plan (RUWMP) was the first regional Urban Water Management Plan prepared by retail and wholesale water agencies in the San Bernardino Valley. Pursuant to the Urban Water Management Planning Act, these plans are required to be updated every five years. The next update of the RUWMP is due on July 1, 2016.

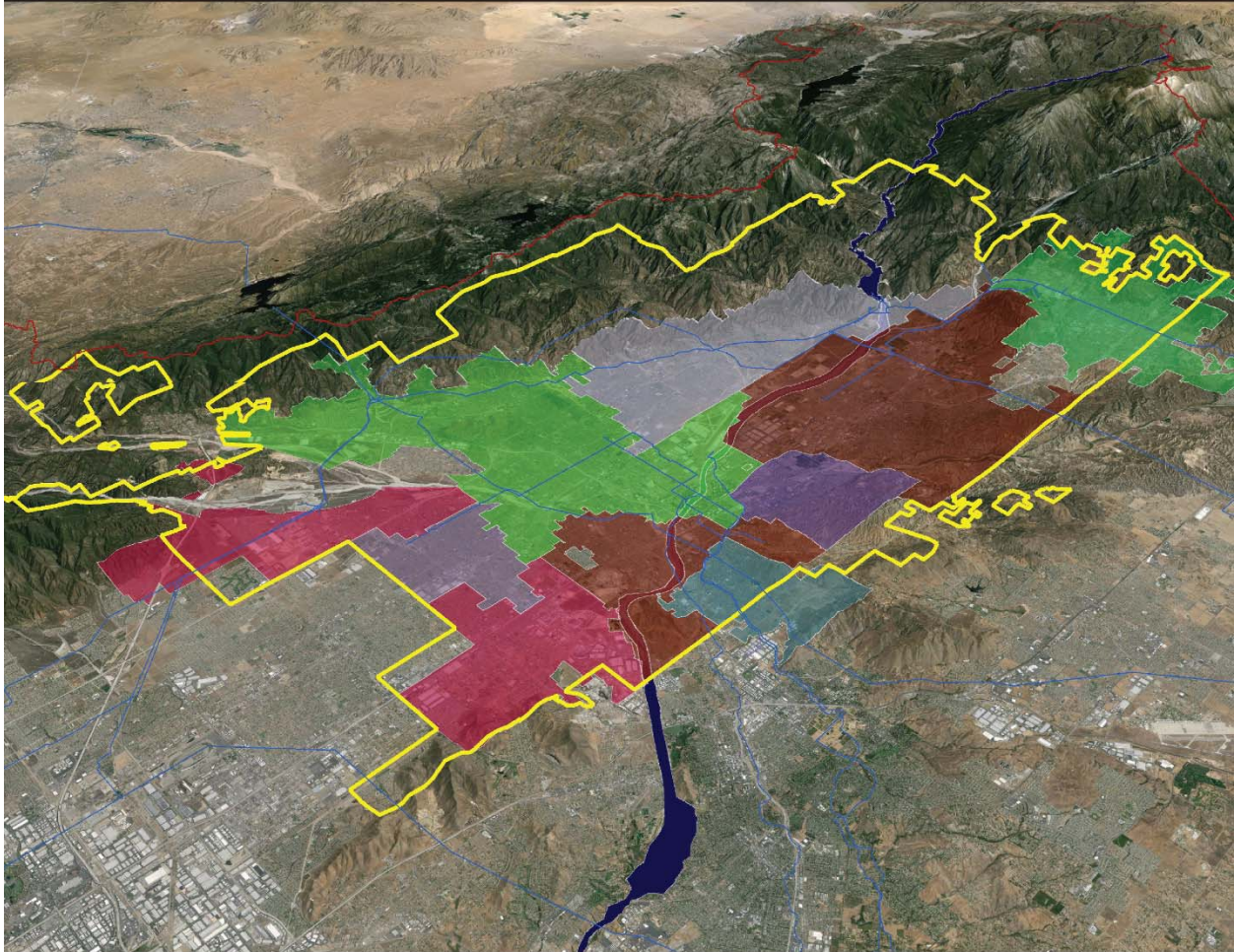
The San Bernardino Valley Municipal Water District and the partnering retail water agencies are recommending the use of Water Systems Consulting, Inc. as the consultant to prepare the RUWMP.

The Yucaipa Valley Water District and the City of Redlands will each prepare their own chapter of the RUWMP which will be reviewed and edited by the consultant to properly fit within the RUWMP.

The table below describes the effort required for the preparation of each individual chapter for the participating agencies.

Agency	Regional Sections	Agency Chapter	Total
City of Colton	\$ 5,914.11	\$18,836	\$24,750
City of Loma Linda	\$ 5,914.11	\$18,836	\$24,750
City of Redlands	\$ 5,914.11	\$3,480	\$9,394
City of Rialto	\$ 5,914.11	\$25,138	\$31,052
East Valley Water District	\$ 5,914.11	\$18,836	\$24,750
Riverside Highland Water Company	\$ 5,914.11	\$18,836	\$24,750
San Bernardino Mutual Water Department	\$ 5,914.11	\$25,138	\$31,052
San Bernardino Valley Municipal Water District	\$ 53,227.00	\$40,896	\$94,123
West Valley Water District	\$ 5,914.11	\$18,836	\$24,750
Yucaipa Valley Water District	\$ 5,914.11	\$3,480	\$9,394
TOTAL	\$106,454	\$192,312	\$298,765

Proposal for the
2015 Update for
**San Bernardino Valley Regional
Urban Water Management Plan**



• August 31, 2015 •





August 31, 2015

Bob Tincher
Manager of Engineering and Planning
San Bernardino Valley Municipal Water District
380 Vanderbilt Way
San Bernardino, CA 92408

SUBJECT: PROPOSAL TO PROVIDE PROFESSIONAL SERVICES TO PREPARE THE SAN BERNARDINO VALLEY 2015 REGIONAL URBAN WATER MANAGEMENT PLAN

Dear Bob,

Water Systems Consulting, Inc. (WSC) appreciates this opportunity to present our Proposal to San Bernardino Valley Municipal Water District (Valley District) for the San Bernardino Valley Regional Urban Water Management Plan (RUWMP). Our proposal outlines the key success factors that make WSC the right choice for this project:

- **Experienced and effective Project Manager.** WSC's Project Manager, Jeroen Olthof, is a recognized industry leader in water planning whose hands-on management approach has delivered projects on time and under budget while providing excellent value.
- **Existing working relationships.** Through the Regional Recycled Water Concept Study, our team has just gone through the process of coordinating a regional planning effort with the retail agencies. Our team will use those relationships and build on the lessons learned to successfully deliver this project.
- **Strong UWMP qualifications.** WSC staff have completed numerous UWMPs and Water Supply Assessments (WSAs), and WSC staff are currently serving on the UWMP Guidebook Advisory Committee with California Department of Water Resources (DWR) staff.
- **Innovative approach.** This proposal outlines some of our team's ideas for meeting the minimum requirements and deadlines established by DWR while making the document and the process beneficial for Valley District and the retail agencies.

We are confident that we are the right team for the job, and would greatly appreciate the opportunity to work with you on this important project. If you have any questions or would like to discuss any aspect of our proposal further, please contact Jeff at (805) 457-8833 ext. 101 or Jeroen at (619) 450-4558. You can also email us at jszytel@wsc-inc.com and jolthof@wsc-inc.com. Thank you for considering WSC for this project, and we look forward to your response.

Sincerely,
Water Systems Consulting, Inc.

A handwritten signature in black ink, appearing to be "JS", written over a light blue horizontal line.

Jeff Szytel, PE, MS, MBA
Principal in Charge

A handwritten signature in black ink, appearing to be "J. Olthof", written over a light blue horizontal line.

Jeroen Olthof, PE, MS
Project Manager

964 Fifth Street, Suite 412 | San Diego, CA 92101 | Phone: (619) 450-4558 | Fax: (619) 393-0106
www.wsc-inc.com

Table of Contents

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Introduction

Demonstrated Expertise and Proven UWMP Qualifications

Water Systems Consulting, Inc. (WSC) is a civil and environmental engineering firm that specializes in the planning, design, evaluation and optimization of municipal water, wastewater, and recycled water systems. WSC is an industry leader at preparing Urban Water Management Plans (UWMPs) for agencies like San Bernardino Valley Municipal Water District (Valley District) throughout California. WSC completed numerous UWMPs during the 2010 cycle and our team of UWMP experts continued to support several of these agencies in updating their analytical toolsets as new information has become available about changes in supply and demand assumptions. As the California Department of Water Resources (DWR) began preparation of their Guidebook for the 2015 UWMPs, they called on WSC to contribute to key areas such as demand projections and energy intensity calculations as part of their Guidebook Advisory Committee. From our offices in Ontario, San Diego, San Luis Obispo and Carmel Valley, WSC serves special districts, cities, counties, investor owned utilities and regulatory agencies throughout California, and we have a strong understanding of the regulatory and political climate that our clients operate within. WSC works collaboratively with our clients, applying proven approaches, state-of-the-art tools, and expertise-driven innovation to deliver truly outstanding results.

“WSC has demonstrated excellent engineering and project management practices. Every anticipated milestone was completed on time, and the project remained on track financially.”

- Kevin Thompson, PE, Public Works Project Engineer
 City of Santa Barbara

“WSC has worked seamlessly as an extension of our staff to assist us in many of our projects. Their involvement has improved our ability to stay on scope and on budget while meeting the ever increasing number of stakeholder concerns.”

-Richard Svindland, PE, Director of Operations
 California American Water

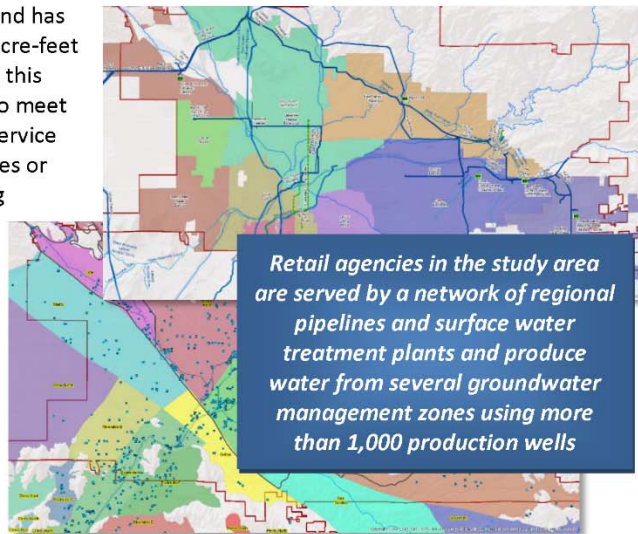
“WSC is very knowledgeable and responsive. They have proven themselves to be fair, understanding and willing to go the extra mile to see a project succeed. I would highly recommend WSC.”

-Benjamin Fine, PE, Public Works Director/City Engineer
 City of Pismo Beach



Project Understanding and Approach

The San Bernardino Valley Municipal Water District (Valley District) is seeking a consultant to prepare a 2015 Regional Urban Water Management Plan (RUWMP). Valley District is a contractor to the State Water Project (SWP) and has a Table A entitlement to 102,600 acre-feet per year (AFY). Valley District uses this water, along with other supplies, to meet the needs of retail agencies in its service area, either through direct deliveries or through recharge of the underlying groundwater basins. Each of the retail agencies uses its own groundwater production wells, along with imported water and local surface water, to meet the demands of its customers. In recent years, the SWP has been a less reliable source of water due to California’s drought and environmental restrictions on pumping through the Delta.



Valley District led the development of a 2010 RUWMP for itself and seven retail agencies. The 2010 RUWMP was organized with a single coordinated set of supply and demand projections for the region, followed by individual chapters for each retail agency to meet all its UWMP reporting requirements. For the 2015 round, the agencies plan to follow a similar process, with two additional retail agencies joining – the City of Rialto and Riverside-Highland Water Company. The retail agencies will require varying services from the consultant; a summary of the requested services for each of the participating agencies is shown below. The Basin Technical Advisory Committee (BTAC), a group of water suppliers that provides technical recommendations on the operation of regional water resources, is also expected to provide oversight and guidance for the 2015 RUWMP process.

Agency	Consultant Services
Valley District	Prepare updated regional chapters
City of Colton	Prepare an updated chapter
City of Loma Linda	Prepare an updated chapter
City of Redlands	Peer review updated chapter prepared by the City
City of Rialto	Prepare a new chapter
City of San Bernardino Municipal Water Department	Prepare an updated chapter
East Valley Water District	Prepare an updated chapter
Riverside-Highland Water Company	Prepare a new chapter
West Valley Water District	Prepare an updated chapter
Yucaipa Valley Water District	Peer review updated chapter prepared by the District

Based on our working history with Valley District and our discussions with several of the retail agencies, WSC has identified four key success factors for this project. These success factors, along with an overview of WSC’s approach to this project, are presented below.

Key Success Factor	WSC Approach
Prepare an RUWMP that meets the requirements of the 2015 Guidebook and is deemed complete by DWR	Use experience and insight to start quickly and avoid mis-steps
Meet schedule milestones so that key data can be shared with neighboring agencies and the plan can be circulated for review, discussed at a public hearing, adopted, and finalized before June 30, 2016	A “quick start” will help the team meet key schedule milestones
Complete the work efficiently by leveraging previous and ongoing efforts, including <ul style="list-style-type: none"> ➤ The 2015 Upper Santa Ana River Watershed Integrated Regional Water Management Plan ➤ The 2013 Santa Ana Watershed Basin Study by the U.S. Bureau of Reclamation ➤ The One Water One Watershed (OWOW) 2.0 planning process by SAWPA ➤ The 2010 Regional Urban Water Management Plan ➤ The on-going Regional Recycled Water Concept Report 	Close coordination with regional efforts and realistic estimates of future demands and supply reliability increase confidence in results
Provide a set of tools that facilitate the production of the report and allow Valley District, the BTAC, or the retail agencies to make updates as new information becomes available and perform additional analysis and reporting	Database approach to information storage and reporting saves costs and reduces the chances for error Leading-edge approach to optional sections enhances value of RUWMP

The following sections highlight some elements of WSC’s plan for achieving these key success factors and making the 2015 RUWMP a model for coordinated regional planning.

Experience & Insight Let WSC Start Quickly & Avoid Mis-Steps

As detailed in the qualifications section of our proposal, WSC completed multiple UWMPs during the 2005 and 2010 cycles. Because of our industry leadership, DWR asked WSC’s Spencer Waterman to serve on the 2015 Guidebook Advisory Committee. Spencer has been involved in the year-long process to update the Guidebook for retail and wholesale water providers, and he will use this knowledge to start the team down the right road the first time. There have been some significant changes to the California Water Code (CWC) since the 2010 UWMP that will need to be addressed in the 2015 UWMP as described below. WSC will continue to monitor these changes and bring the most up-to-date knowledge to this project.

New UWMP Requirement	Implications for Valley District and Retail Agencies
UWMP Submittal Date – Revised submittal date to July 1, 2016	Submit 2015 UWMP by deadline.
Demand Management Measures – Minimum requirement for narrative descriptions of six DMMs	Ability to revise DMM section from 2010 UWMP.
Standardized Forms – Must report in forms, tables, or displays created by DWR	Ability to upload to DWR reporting database in-house or include in consultant scope. DWR materials tentatively available in September 2015.
Water Loss – Report distribution system water losses based on AWWA methodology	Ability to complete in-house or include in consultant scope. DWR materials and guidance tentatively available in September 2015.
Voluntary reporting of passive savings	Optional ability to complete in-house or include in consultant scope. DWR materials and guidance tentatively available in September 2015.
Voluntary reporting of energy intensity	Optional ability to complete in-house or include in consultant scope. DWR materials and guidance tentatively available in September 2015.

WSC anticipates using DWR’s suggested table of contents to create a unified table of contents for the regional document. The optimal structure for the RUWMP is expected to generally follow the structure used in 2010 (i.e., regional chapters for region-wide issues, followed by individual chapters for retail agencies). Key goals for establishing the document structure are to make report preparation efficient, allow DWR to easily determine how each agency is meeting its requirements, and make the document a valuable reference for future planning.

DWR Draft Table of Contents

1. Introduction and Overview
2. Plan Preparation
3. System Description
4. System Water Use
5. Baselines and Targets
6. System Supplies
7. Water Supply Reliability
8. Water Shortage Contingency Planning
9. Demand Management Measures
10. Plan Adoption, Submittal, and Implementation

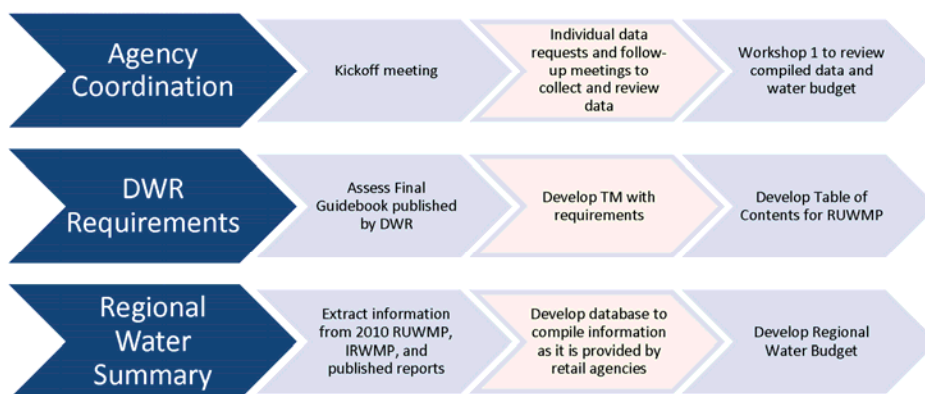
Quick Start Will Help Team Meet Key Schedule Milestones

WSC looks forward to working closely with Valley District and the retail agencies over the approximately nine-month period from Notice to Proceed until the final deliverables. Over the course of this period, there will be a series of iterations and adjustments as new information becomes available. As of the anticipated notice to proceed,

- DWR’s on-line submittal tool and final guidance documents may not be complete
- Complete consumption and production data for calendar year 2015 will not be available
- The potential reliability of imported supplies will still be under review

While these precursors may not be available, the team cannot afford to wait. Meeting DWR’s deadlines, and allowing adjoining agencies to do the same, requires the team to start immediately. Therefore WSC proposes a quick start to begin moving with the best available information, while structuring processes that are adaptable as new information becomes available.

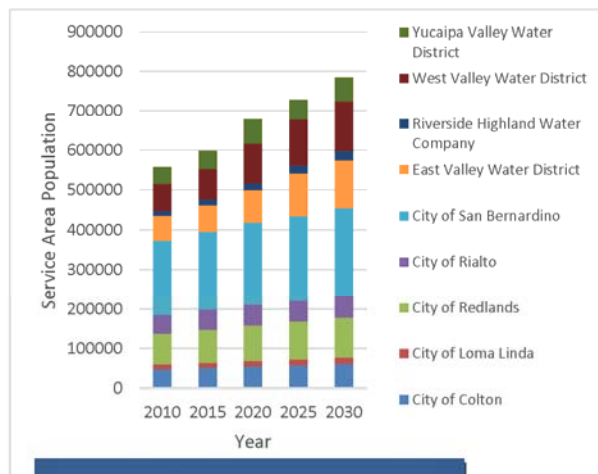
Key elements of the quick start are shown in the graphic below. Because of WSC’s depth of resources, these key initiatives can begin in parallel immediately following notice to proceed.



WSC recently completed a similar process for the Regional Recycled Water Concept Study, an effort that involves almost all the same agencies who are involved in the RUWMP. In less than six weeks, WSC was able to conduct a kickoff meeting, distribute data requests to eight agencies, work cooperatively with the agencies to collect more than 5 gigabytes of data, and distill the information to generate exhibits and maps to support the identification and evaluation of regional recycled water opportunities. Laine Carlson is leading that effort for WSC, and the majority of her time will remain focused on the Regional Recycled Water Concept Study. However, we anticipate Laine leading the agency coordination efforts for this project to leverage existing relationships and utilize the information that has already been provided as part of the Recycled Water System Concept Study. This continuity will help minimize any duplication of effort by the retail agencies or Valley District staff.

Close Coordination & Realistic Estimates Increase Confidence In Results

The last five to ten years have been a dynamic period in the California water supply industry. Extended drought in the Colorado River Basin and northern California has reduced the availability of imported supplies, while the economic downturn led to an interruption in the pattern of steady growth that some communities had become accustomed to. New regulations and extensive education efforts have led to reductions in per-capita water consumption in most parts of the state, but it is not clear how behaviors will change if the drought becomes less urgent. These and other factors have made the preparation of a 25-year projection of water demands and supplies a challenging task.



When deciding what assumptions to make for the RUWMP, it is important to recognize how the document will be used. In water infrastructure planning, it is common to over-estimate future demands, so that infrastructure can be built ahead of growth. In financial planning, it is common to underestimate growth, so an agency does not experience actual revenues less than projected. For the UWMP, the report will be most valuable if it has the most realistic assessment possible, given current

The population projections in the 2010 RUWMP anticipated steady growth in the study area. For the 2015 RUWMP, WSC will work with agencies to update these projections and develop realistic estimates for future water demands

information. Any major capital investments will be supported by other, more focused studies; the RUWMP is intended to provide policy makers and the public with an accurate appraisal of how supplies compare to demands. To increase confidence in the results, WSC proposes to:

- Work with each retail agency to incorporate their growth projections or develop them using regional estimates prepared by San Bernardino County and the Southern California Association of Governments.
- Use Geographic Information Systems (GIS) to define the populations and demands being served by each agency, both to generate maps for the RUWMP and to help eliminate double counting or omissions.
- Analyze per-capita water use trends and work with the retail agencies to identify a defensible value for future forecasting.
- Incorporate the latest information on regional supply issues, including the IRWM process, the Habitat Conservation Plan for the Santa Ana River, and the on-going Regional Recycled Water Concept Study.

Database Approach To Information Storage & Reporting Saves Costs & Reduces The Chances For Error

Preparing a UWMP for a single agency requires a disciplined approach to data management to track the sources of information, ensure consistency with other reports, and prevent the double-counting of resources. For this project, with a total of ten inter-related agencies, data management will be critical.

For the 2015 cycle, DWR will provide a standard set of Excel data tables to be completed by suppliers. The preliminary version from DWR has separate tabs for each chapter, with the basic structure of the required tables for each chapter on the tab. This format will facilitate uploading the information into the on-line submittal tool, and it provides a visual output that may be helpful for some users. However, for this project, the standard DWR spreadsheet does not provide the best mechanism for storing the information. If separate spreadsheets are prepared for each agency, the team will have to manage ten spreadsheets with potential interconnections and duplication between each one. The same issues will remain:

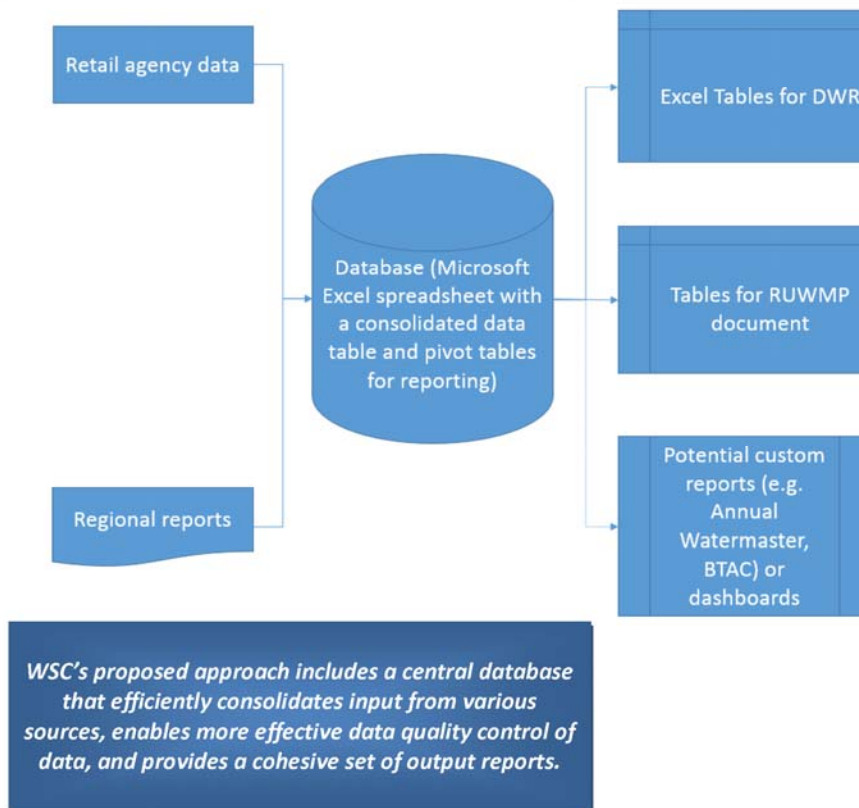
- Potential duplication or exclusion of demands or groundwater production values
- A tedious update process if information is updated during the review cycle
- An inability to easily roll up the data for regional analysis

The RUWMP provides an opportunity to develop a more robust platform for storing regional water supply and demand information. WSC recommends compiling all information into a single database. WSC would build the data table using information provided by the retail agencies, either during the preparation of their chapter or during the peer review. To illustrate the concept, WSC prepared an initial database with values from the 2010 RUWMP.

Each number in the RUWMP becomes a single record in the database. Each record is one row in a table; each record has fields that correspond to the columns in a typical table view. The fields added by WSC are shown below.

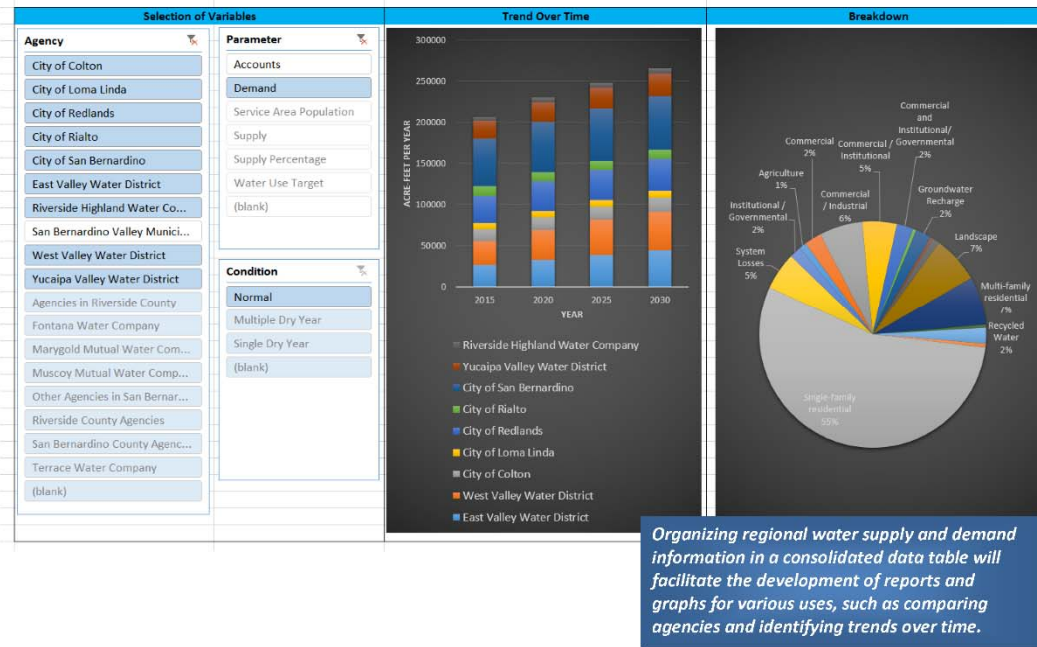
Field Name	Contents
Agency	Valley District, or one of the retail agencies
Parameter	Service Area Population, Accounts, Demand, or Supply
Condition	Normal, Single Dry Year, or Multiple Dry Year
Category	For Demands: By Customer Type, By Household Income For Supplies: Groundwater, Surface Water, State Water Project, Recycled Water
Type and Sub-Type	For Demands: Customer type (single-family, multi-family, ...) For Supplies: Groundwater basin, source of recycled water
Value	The number
Units	The units of measurement, typically acre-feet
Year	The relevant timeframe for the value
Source	Where the number came from

Most of these fields are auto-populated, so there is minimal additional effort to populate the data table. Once the information is in this format, it is much easier to generate output in whatever format is needed. For example, WSC would have a version of the DWR Excel tables that referenced this consolidated database, so that the Excel tables could be re-generated whenever new information was entered. The database can also be sorted and queried to make sure that no duplicate or conflicting values are included. If conflicts are found, the sources of data can be noted and used to select the appropriate value and flag the other value for exclusion from analysis. In addition, Valley District and the retail agencies would have easy access to a rolled-up view of demands and supplies in the entire service area or any sub-set of agencies. The database organization is shown conceptually in the figure below.



Having information in a database format allows the rapid generation of graphs for one or more agency service areas. Dashboard-type reports could be generated for each agency and customized for their specific needs. The following page shows an example of a dashboard that could be used to communicate with retail agencies and other stakeholders.

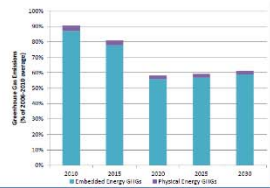
Database Approach Provides A Foundation For Customized Reporting



Leading-Edge Approach To Optional Sections Enhances Value Of RUWMP

Climate Change

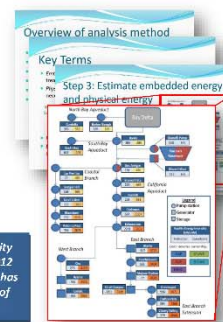
DWR encourages a narrative summary of climate change impacts based on the *IRWM Climate Change Vulnerability Assessment*. Valley District, or retail agencies, may wish to include a description of climate change impacts, including Section IV Sea Level Rise (including its potential impact on imported supplies), Section V Flooding, Section VI Ecosystem and Habitat Vulnerability, and/or Section VII Hydropower. The summary may include a discussion of any planned actions to address noted vulnerabilities from the climate change assessment.



WSC performed climate change analyses for five 2010 UWMPs. Because of these analyses, DWR asked WSC to provide input on potential Climate Change methodology guidance for 2015 UWMPs.

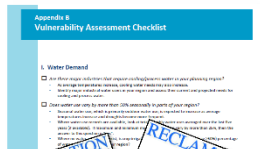
Energy Intensity Analysis

Valley District may wish to analyze climate and energy intensity using qualitative and/or quantitative methods. If quantitative analysis of energy intensity is to be included, it will be prepared consistent with DWR methodologies guidance to be released as an amendment to the Guidebook in September 2015, or as established by Valley District, or retail agencies, and WSC. A full implementation of energy intensity reporting could include compiling and evaluating historical energy usage data to estimate average energy intensity of each supply source to provide a complete picture of total embedded energy in Valley District's water supply.



WSC developed a methodology for energy intensity evaluations, which was presented at AWWA's 2012 Sustainable Water Management Conference, and has provided guidance to DWR during development of their energy intensity tool.

Additionally, the OWOW plan is complemented by the U.S. Bureau of Reclamation *Climate Change Analysis for the Santa Ana River Watershed TM and Greenhouse Gas Emissions Calculator for the Water Sector: User's Manual TM*, which could be utilized to identify potential adaptation strategies, in light of projected effects of climate change.



WSC will leverage IRWM and USBR climate change resources to meet DWR's expectations and maintain consistency with IRWM planning in the Santa Ana watershed.



Passive Savings

Passive water savings from codes, ordinances, or transportation and land use plans are a reporting option described in the 2015 UWMP Guidebook. If passive water savings are to be included, they will be prepared consistent with DWR methodologies guidance to be released as an amendment to the Guidebook in September 2015. Such guidance may include acceptable statewide default values and/or standardized calculators for entering locally-specific data as schedules and availability of information permit.

Scope of Work

The following table summarizes the proposed scope of work and deliverables for the 2015 RUWMP.

Task	Work Elements	Deliverables
0. Project Management and Meetings	<ul style="list-style-type: none"> Provide project administration, including <ul style="list-style-type: none"> Develop and maintain a project schedule Prepare monthly progress reports for submittal with invoices Conduct monthly telephone conference calls to discuss project progress Facilitate and conduct meetings, including <ul style="list-style-type: none"> One kickoff meeting with all participating agencies One individual follow-up meeting with each retail agency to discuss specific issues Two workshops with Valley District and retail agencies One board or public workshop presentation Provide Quality Control review of deliverables 	<ul style="list-style-type: none"> Electronic meeting agendas, minutes, and action items
1. Legislative Requirements and Report Format	<ul style="list-style-type: none"> Prepare a technical memorandum to summarize the legislative requirements of the UWMP Act and the issues provided in the DWR Guidebook Prepare a Table of Contents for the RUWMP 	<ul style="list-style-type: none"> Electronic files for: <ul style="list-style-type: none"> Technical Memorandum (100% Draft and Final) Table of Contents (100% Draft and Final)
2. Regional Analysis	<ul style="list-style-type: none"> Prepare initial chapters of the RUWMP that apply to all agencies in the planning area, including Introduction and Overview and Preparation of Plan Prepare tables showing projected demands and supplies for the Valley District service area <ul style="list-style-type: none"> Tables will be a "roll-up" of data provided by retail agencies Prepare regional supply projections for: <ul style="list-style-type: none"> Normal Year Single Dry Year Multiple Dry Years Wet Year showing how water will be stored for use during dry years 	<ul style="list-style-type: none"> Electronic files for: <ul style="list-style-type: none"> Regional Chapters (100% Draft and Final) Regional Wet Year Scenario (100% Draft and Final) Regional Water Budget (100% Draft and Final)
3. Individual Water Agency Requirements	<ul style="list-style-type: none"> Develop projections of growth in population and demand for each retail agency Describe each retail agency's implementation of demand management measures to the extent required by the DWR Guidebook Develop or review a chapter for each retail agency that meets the requirements identified in Task 1 	<ul style="list-style-type: none"> Electronic files for: <ul style="list-style-type: none"> Updated Chapters for Colton, Loma Linda, East Valley, San Bernardino, and West Valley Peer Review of Redlands and Yucaipa Chapters New Chapters for Rialto and Riverside-Highland
4. Updated RUWMP	<ul style="list-style-type: none"> Assemble approved chapters into a cohesive 2015 RUWMP Distribute the draft report for review by participating agencies. Maintain a log of review comments and final disposition Support public review and adoption by participating agencies 	<ul style="list-style-type: none"> Electronic files for: <ul style="list-style-type: none"> Draft Updated RUWMP List of comments on draft report and responses Final work products (native file formats and PDF version of entire report) Final Updated RUWMP (Five hard copies to each participating agency)

Team Organization

WSC’s team is functionally organized to take advantage of the strengths of our expert staff, while keeping the structure streamlined to maintain efficiency, quality, and accountability. The project team will be managed by Jeroen Olthof from the San Diego office. Jeroen commonly works from WSC’s Ontario office and will be accessible to the District in a timely manner. WSC’s relevant staff and project qualifications are located in Appendix A. Contact information for our proposed team is included in our consolidated resumes located in Appendix B.

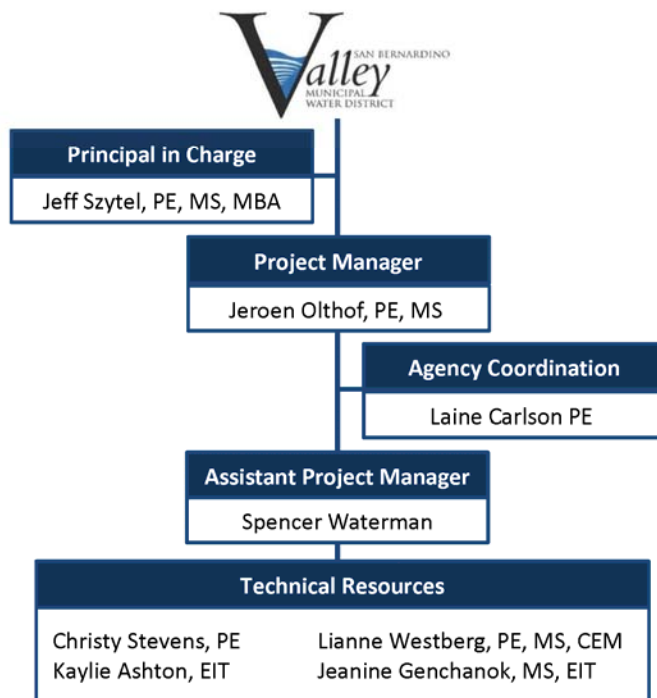
Jeroen will be leading the development of the RUWMP and has more than 20 years of experience. As an industry leader in water and wastewater planning, Jeroen brings special technical expertise to planning documents – developing personalized, adaptable customer and asset databases, as well as keeping the document thorough, yet concise. Jeroen has completed multiple UWMPs and Water Resources Planning documents and will bring that expertise to Valley District.

Spencer will be supporting Jeroen’s efforts by serving as Assistant Project Manager. Currently, Spencer is participating on the 2015 UWMP Guidebook Advisory Committee being led by DWR, and he has a deep understanding of DWR’s changes and requirements. He completed seven 2010 UWMPs and six UWMPs during the 2005 cycle.

As Project Manager for the Regional Recycled Water System Concept Study, Laine Carlson will have the ability to leverage her existing relationships with the retail agencies to coordinate the kick-off meeting, distribute and follow up on individual data requests, and utilize the information that has already been provided as part of the Recycled Water System Concept Study. This continuity will help minimize any duplication of effort by the retail agencies or Valley District staff.

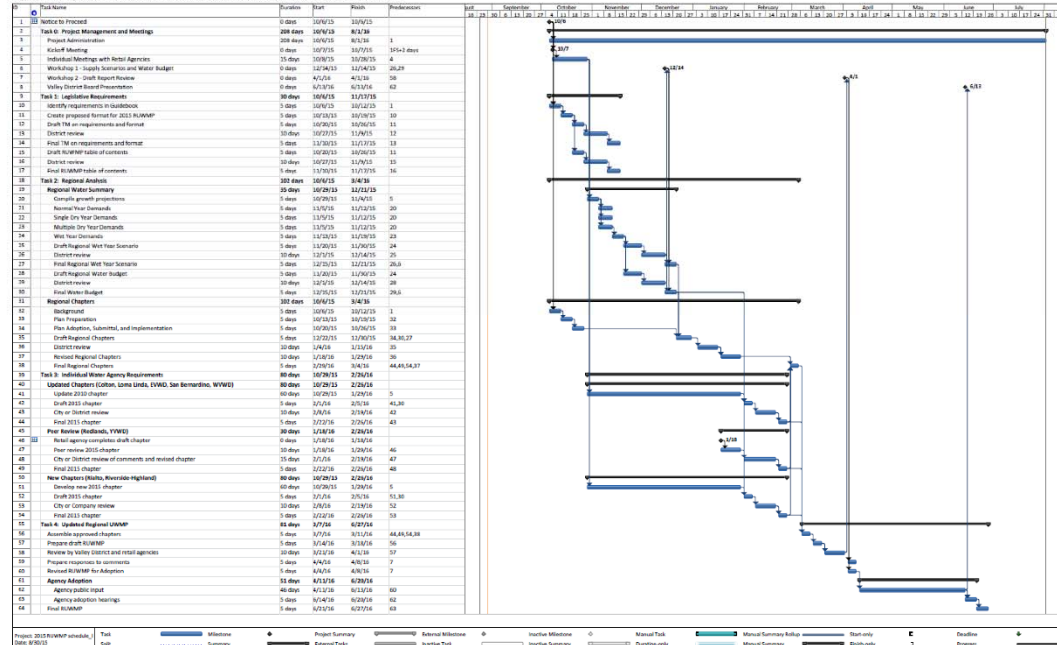
WSC’s team is rounded out by Christy Stevens, a senior technical resource in our Ontario office; Lianne Westberg, a Certified Energy Manager who has led our efforts in understanding the energy embedded in water supply; and Kaylie Ashton and Jeanine Genchanok, two assistant engineers who can provide efficient analysis and report development.

Our unique structure, in-depth understanding of Valley District’s system, and experience in the region make the WSC team the right partner for Valley District.



Proposed Project Schedule

A preliminary schedule with timeframes to complete each task is shown below.



Fee Schedule

Task No.	Task Description	Principal	Senior Engineer III	Associate Engineer III	Associate Engineer II	Assistant Engineer	Staff Planner	Clerical/Admin	Total Labor Hours	Total Labor	Expenses	Fee
<i>Billing rates, \$/hr</i>		\$278	\$231	\$179	\$168	\$105	\$131	\$84				
0	Project Management and Meetings	48	72	60	0	0	70	24	274	\$ 51,902	\$ 3,100	\$ 55,002
0.1	Project Administration		20					24	44	\$ 6,636	\$ 300	\$ 6,936
0.2	Kickoff Meeting		4	4			16		24	\$ 3,736	\$ 600	\$ 4,336
0.3	Individual Meetings with Retail Agencies		36	36			36		108	\$ 19,476	\$ 800	\$ 20,276
0.4	Workshops		8	16			16		40	\$ 6,808	\$ 800	\$ 7,608
0.5	Public/Board Presentation (assume one)		4	4			2		10	\$ 1,902	\$ 100	\$ 2,002
0.6	Quality Control Review	48							48	\$ 13,344	\$ 500	\$ 13,844
1	Legislative Requirements and Report Format	0	10	0	0	12	24	0	46	\$ 6,714	\$ 300	\$ 7,014
1.1	Technical Memorandum with Requirements		8			8	16		32	\$ 4,784	\$ 200	\$ 4,984
1.2	RUWMP Table of Contents		2			4	8		14	\$ 1,930	\$ 100	\$ 2,030
2	Regional Analysis	0	28	0	0	152	128	0	308	\$ 39,196	\$ 1,700	\$ 40,896
2.1	Regional Summary of Demands and Supplies		8			40	40		88	\$ 11,288	\$ 500	\$ 11,788
2.2	Regional Supply Scenarios		8			32	32		72	\$ 9,400	\$ 400	\$ 9,800
2.3	Regional Water Budget		8			40	24		72	\$ 9,192	\$ 400	\$ 9,592
2.4	Regional Chapters		4			40	32		76	\$ 9,316	\$ 400	\$ 9,716
3	Individual Water Agency Requirements	0	68	36	176	476	336	0	1092	\$ 145,716	\$ 5,700	\$ 151,416
3.1	Update City of Colton Chapter		8	4	24	60	40		136	\$ 18,136	\$ 700	\$ 18,836
3.2	Update City of Loma Linda Chapter		8	4	24	60	40		136	\$ 18,136	\$ 700	\$ 18,836
3.3	Peer Review of City of Redlands Chapter		2	2	4	8	8		24	\$ 3,380	\$ 100	\$ 3,480
3.4	Prepare City of Rialto Chapter		12	6	24	80	60		182	\$ 24,138	\$ 1,000	\$ 25,138
3.5	Update City of San Bernardino Chapter		8	4	24	60	40		136	\$ 18,136	\$ 700	\$ 18,836
3.6	Update East Valley Water District Chapter		8	4	24	60	40		136	\$ 18,136	\$ 700	\$ 18,836
3.7	Prepare Riverside-Highland Water Company Chapter		12	6	24	80	60		182	\$ 24,138	\$ 1,000	\$ 25,138
3.8	Update West Valley Water District Chapter		8	4	24	60	40		136	\$ 18,136	\$ 700	\$ 18,836
3.9	Peer Review Yucaipa Valley Water District Chapter		2	2	4	8	8		24	\$ 3,380	\$ 100	\$ 3,480
4	Updated RUWMP	0	38	40	0	64	80	0	222	\$ 33,138	\$ 11,300	\$ 44,438
4.1	Assemble Approved Chapters		2	4		16	16		38	\$ 4,954	\$ 200	\$ 5,154
4.2	Facilitate Review and Respond to Comments		16	16		32	32		96	\$ 14,112	\$ 600	\$ 14,712
4.3	Support Public Review and Adoption		16	16			16		48	\$ 8,656	\$ 300	\$ 8,956
4.4	Prepare Final Deliverables		4	4		16	16		40	\$ 5,416	\$ 10,200	\$ 15,616
Column Totals		48	216	136	176	704	638	24	1942	\$ 276,666	\$22,100	\$298,766

Appendix A. Qualifications

Staff Qualifications

The following information outlines the qualifications and credentials of the WSC team. It also provides insight into the value each person adds to Valley District. Consolidated resumes are in Appendix B.

Jeff Szytel, PE, MS, MBA – Principal in Charge



- Over 16 years of experience in the planning and optimization of water and wastewater systems.
- Authored nearly 50 planning documents in California and Nevada for agencies ranging in size from 5,000 to 500,000 customers, including twelve recent UWMPs and Water Supply Assessments.
- Strong working relationship with DWR staff and deep understanding of the regulatory context and what DWR needs to see in a completed plan.

MBA, UCLA
 MS, Civil and Environmental Engineering, UCLA
 BS, Civil and Environmental Engineering, UC Davis
 Civil Engineer, CA #63004

- Completed UWMPs for the City of Arroyo Grande, Nipomo CSD, and the following California American Water Districts: Sacramento, Monterey, Ventura, Los Angeles, and San Diego.
- Principal in Charge for California American Water’s Flair Spectrum Water Supply Assessment, two of the City of Victorville’s Water Supply Assessments, Santa Barbara County Water Agency’s Long Term Supplemental Water Supply Alternatives Report, and the San Luis Obispo County Flood Control and Water Conservation District’s Paso Basin Water Supply Options Study.
- Provided QA/QC for Baldy Mesa Water District’s Supply Plan.

Jeroen Olthof, PE, MS – Project Manager



- Nearly 20 years of experience in civil engineering planning, specializing in hydraulic modeling, infrastructure condition assessments, UWMPs, and master planning.
- Lead Author of Otay Water District’s 2005 UWMP and the Lead Project Engineer for concurrently completing a UWMP and a Sanitary Sewer and Storm Drainage Master Plan for the City of Reedley.
- Nationally recognized expert in the application, adaptation and use of data management and analysis, GIS and modeling technology to solve problems related to water systems.

MS, Civil Engineering, University of Washington
 BS, Civil Engineering, University of Colorado
 MBA, USC (in-process)
 Civil Engineer, CA #58597

- Technical Lead and Task Master for the Hi-Desert Water District’s UWMP and the Nipomo CSD’s 2010 UWMP where he developed the customer database, demand projections, and provided technical analysis.
- Completed more than 30 water master plans, including assessment of demands and supplies and developed Water Supply Plans/Assessments for several agencies including Baldy Mesa Water District, Calaveras County Water District, Duke Energy, and Walnut Valley Water District.
- Specialist in data management and analysis including financial analysis and statistical evaluations.

Spencer Waterman – Assistant Project Manager



- Lead Author and Staff Planner for seven 2010 UWMPs.
- Core team member for the DWR’s 2015 UWMP Guidebook Advisory Committee.
- Evaluated supply, supply reliability, demand, supply and demand comparisons, demand management measure, water shortage contingency plan, and recycled water for Nipomo CSD’s 2010 UWMP, the City of Arroyo Grande’s 2010 UWMP, and California American Water’s 2005 & 2010 UWMPs for their Monterey, Sacramento, Ventura, Los Angeles, and San Diego District’s.

BS, City and Regional Planning, Cal Poly, SLO
 AWWA Water Use Efficiency Practitioner – Grade 1, Cert. #1714

- Staff Planner for California American Water’s Flair Spectrum Water Supply Assessment, Santa Barbara County Water Agency’s Long Term Supplemental Water Supply Alternatives Report, and San Luis Obispo County Flood Control and Water Conservations District’s Paso Basin Supplemental Water Supply Options Study.
- Provides water use efficiency Best Management Practices (BMP) implementation and California Urban Water Conservation Council (CUWCC) support services, including tracking, updating, planning, and reporting compliance for Nipomo CSD’s BMP Implementation and CUWCC Support.
- Provided land use planning, demographic, spatially allocated demand, and population projections for water/sewer master plans for the Descanso Community Water District, San Miguelito Mutual Water Company, and the Cities of San Luis Obispo, Paso Robles, Arroyo Grande, and Santa Maria, among others.

Laine Carlson, PE – Agency Coordination



- Over 10 years of experience, 7 of which were working for a public utility implementing water, wastewater and recycled water projects.
- Project Manager for Valley District’s Regional Recycled Water Concept Study and Grant Application, which includes many of the same retail agencies as this project.
- Project Manager for West Valley Water District’s Recycled Water Master Plan, Part 2.

BS, Environmental Engineering, Cal Poly, Pomona
 Civil Engineer, CA #72424
 SWRCB T2 Drinking Water Operator #34907
 SWRCB D2 Drinking Water Operator #41981

- Project Manager for Park Water Company’s Compton East Reservoir Study and Apple Valley Ranchos Water Company’s North Apple Valley Water System Improvement Plan.
- Project Manager for the City of Pismo Beach’s Recycled Water Facilities Planning Study and the implementation of the planning study.
- Project Manager for California American Water’s El Monte’s Flair Spectrum Water Supply Assessment.
- Project Manager for the City of Victorville’s Water Master Plan and As-Needed Water Modeling Services.
- Excellent at collaborating with agency staff to brainstorm and solve problems.
- Highly organized and effective communicator with experience preparing technical documents.

Lianne Westberg, PE, MS – Technical Resource



- Mechanical Engineer and Certified Energy Manager.
- Prepared energy evaluations and evaluated climate change mitigation and adaption strategies for California American Water’s 2010 UWMPs for their Monterey, Sacramento, Ventura, and Los Angeles Districts.
- Primary Author of California American Water’s 2010 UWMP for their San Diego District where she evaluated supply, supply reliability, demand, supply and demand comparisons, demand management measures, and climate change mitigation and adaption strategies.

MS, Civil and Environmental Engineering, Stanford
 BS, Mechanical Engineering, Cal Poly, SLO
 Mechanical Engineer, CA #35941
 Certified Energy Manager, #21981

- Energy and Water Manager and Project Manager for the Energy Watch – Facility Inventory and Database Project for the County of San Luis Obispo and Heritage Ranch CSD’s System Energy Plan.
- Conducted Energy Use Studies for California American Water’s Monterey and Sacramento Districts where she performed an analysis of operation optimization and energy efficiency opportunities.
- Project Engineer for the City of Santa Maria’s 2012 Utility Master Plan Update and the City of San Luis Obispo’s Recycled Water System Assessment.
- Project Engineer for Apple Valley Ranchos Water Company’s North Apple Valley Water System Improvement Plan.

Christy Stevens, PE – Water Technical Resource



- Over 10 years of experience working for a public utility and as a consulting engineering, focusing on water, recycled water, and wastewater systems.
- Providing engineering support for Valley District’s Recycled Water Concept Study and Grant Application.
- Project Manager for the City of Victorville’s On-Call Modeling services, which includes two Water Supply Assessments.
- Project Engineer for the City of Pismo Beach’s Recycled Water Facilities Planning Study.

BS, Civil Engineering, Cal Poly, Pomona
 Civil Engineer, CA #80762
 Civil Engineer, CA #C73124

- Project Engineer for Apple Valley Ranchos Water Company’s North Apple Valley Water System Improvement Plan.
- Project Engineer for Park Water Company’s Compton East Reservoir Study.
- Project Manager for the Victorville Water District’s Water and Sewer Master Plan.
- Project Manager for the City of Big Bear Lake Department of Water and Power’s Water Atlas Map updates.
- Project Manager for Big Bear City Community Services District’s On-Call Engineering and Construction Management Services, where she is serving as the District’s technical advisor for planning and engineering related issues.

Jeanine Genchanok, MS, EIT – Technical Resource



- Staff Engineer for the Santa Barbara County Water Agency’s Long Term Supplemental Water Supply Assessment and Alternative Report, which included an analysis of available supply and underutilized capacity.
- Staff Engineer for the County of San Luis Obispo’s Energy and Water Manager and the Energy Watch – Facility Inventory and Database Project and developed an interim tool for the County for energy and water data management which can provide a unique value to the UWMP process.

MS, Civil and Environmental Engineering, UC Davis
 BS, Civil and Environmental Engineering, University Illinois, Urbana-Champaign
 Engineer-in-Training, #153625

- Assistant Engineer for Otay Water District’s As-Needed Hydraulic Modeling Services.
- Engineering support for the San Luis Obispo County Flood Control and Water Conservation District’s Paso Basin Supply Options Study, where she quantified unutilized capacity based on supply and historical area.

Kaylie Ashton, EIT – Engineering Support



- Experience in hydrology and hydraulic analysis, master planning, and hydraulic modeling of water distribution systems.
- Provides On-Call Water Modeling services for the City of Victorville, where she completed two Water Supply Analyses.
- Provided engineering support for Park Water Company’s Compton East Reservoir Study and for the City of Pismo Beach’s Recycled Water Facilities Planning Study.

BS, Civil Engineering, Cal Poly, Pomona
 Engineer-in-Training, #153695

- Assistant Engineer for San Bernardino Valley Municipal Water District’s Recycled Water Concept Study and Grant Application.
- Staff Engineer for West Valley Water District’s Recycled Water Master Plan – Chapter 8.
- Efficient engineer with strong data analysis skills and understands the importance of schedule maintenance and completing a project on time.
- Practical understanding of how to apply engineering practices to deliver insightful and operator-friendly projects.



Project Qualifications

Since its founding, WSC has consistently grown in its capabilities in the area of water supply planning. During the 2010 cycle, WSC completed seven UWMPs and has continued to support some of these agencies in updating their analytical toolset as new information has become available about changes in supply and demand assumptions. In all, WSC's team of experts have worked together to complete more than 16 UWMPs deemed complete by DWR, as well as provided a robust planning resource resulting in confident management decisions.



Legend

-  2010 UWMPs
-  2005 UWMPs

“WSC effectively used GIS tools to perform spatial analysis of the raw data. The clear and competent presentation of the customer data allowed District policy makers to understand the information and act upon it.”
 -Michael LeBrun, General Manager
 Nipomo Community Services District

“Whenever working with WSC, I have the confidence of knowing that our best interests are being looked after and that our projects are in the hands of professionals.”
 -Rick Saldivar, Operations Manager
 California American Water

“I have been extremely impressed with their high level of competency and ability to work effectively and interactively with staff. I really enjoy working with staff at WSC, I know I will always get a prompt, insightful and trustworthy response.”
 -Teresa McClish, Director of Community Development
 City of Arroyo Grande



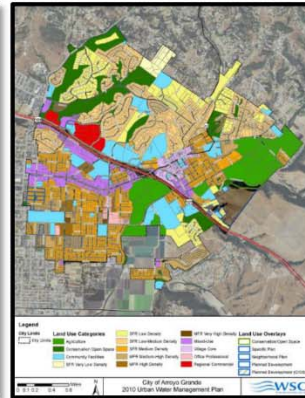
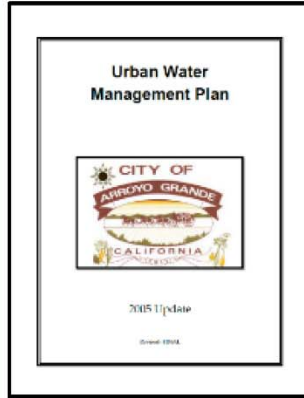
2005 & 2010 Urban Water Management Plans
 City of Arroyo Grande, CA

Relevance to Valley District:

- Developed in conjunction with the City's Water and Sewer Master Plan Updates.
- Key document for defining the City's future demand, supply and conservation strategies.
- Thorough understanding of the City's water supply and demand management strategies.
- Coordinated with local stakeholders, including the County, NCMA, and NMMA.
- Consulted with the City to develop coordinated land use planning and growth projections.

Reference:

Ms. Teresa McClish
 Director of Community Development
 City of Arroyo Grande
 300 E Branch Street
 Arroyo Grande, CA 93421
 (805) 473-5420



Program Overview

WSC prepared the 2005 UWMP Update and the 2010 UWMP for the City of Arroyo Grande.

Arroyo Grande serves an area of about 5.87 square miles and 17,252 people. WSC's scope included a comprehensive evaluation and update of the City's UWMP to comply with the UWMP Act including SB7.

WSC's scope included a comprehensive evaluation and recommendations for the District's water conservation programs to comply with the UWMP Act, including SB7. Evaluated supply, supply reliability, demand, supply and demand comparisons, demand management measures, recycled water plan, and climate change impacts.

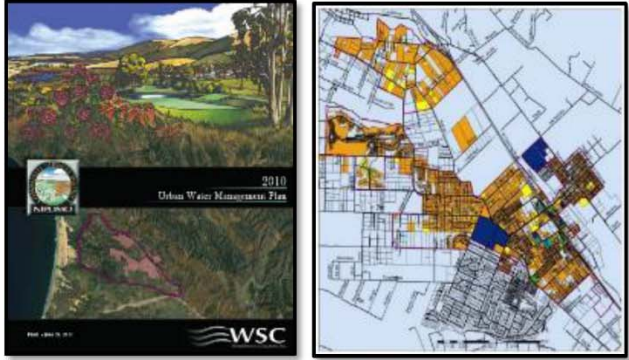


2010 Urban Water Management Plan
Nipomo Community Services District, CA

Relevance to Valley District:

- High visibility plan with significant public involvement.
- Key document for defining NCS D's future demand, supply and conservation strategies.
- Developed spatially allocated demand projections based on customer records, land use data from the County and development projections.
- Consulted with SLO County to develop coordinated land use planning and growth projections.
- Collection system in the downtown area consists of older, smaller pipelines.

Reference:
Mr. Peter Sevcik, PE
District Engineer
 Nipomo CSD
 148 South Wilson Street
 Nipomo, CA 93444
 (805) 929-1133



Program Overview

WSC prepared the 2010 UWMP for the Nipomo Community Services District and is providing ongoing water conservation consulting services for the District.

WSC prepared the 2010 UWMP for the Nipomo Community Services District (NCS D) in southern San Luis Obispo County. The service area encompasses approximately 3,917 acres and serves a population of 10,815.

WSC's scope included a comprehensive evaluation and recommendations for the District's water conservation programs to comply with the UWMP Act, including SB7. Evaluated supply, supply reliability, demand, supply and demand comparisons, demand management measures, recycled water plan, and climate change impacts.



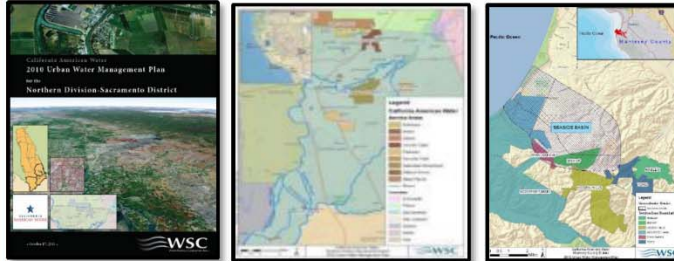
2005 & 2010 Urban Water Management Plans
 California American Water – Various Districts, CA

Relevance to Valley District:

- Evaluated supply, supply reliability, demand, supply and demand comparisons, recycled water plan, and climate change impacts.
- Calculated demand projections in compliance with SB7.
- Evaluated progress towards demand management measures/best management practices.
- Modeled 2020 energy usage incorporating water conservation, energy efficiency improvements and renewable energy generation by District.
- Coordinated with DWR staff to ensure each UWMP was deemed complete.

Reference:

Mr. Mark Reifer, PE
 Operations Manager
 California American Water
 8657 Grand Ave
 Rosemead, CA 91770
 (626) 614-2517



Program Overview

WSC prepared the 2005 UWMP Updates and the 2010 UWMPs for the Sacramento, Monterey, Ventura, San Diego and Los Angeles Districts.

For each District, WSC developed 20-year per capita water use projections. WSC developed service area population data in GIS by intersecting block level Census population data within the CAW service areas in accordance with California Senate Bill X 7-7 (SB X 7-7). Using the service area population, WSC calculated per capita water usage for each service area from 1990 to 2010. This was used to determine the baseline per capita water usage mandated by SB X 7-7 for a 20% reduction by 2020. WSC examined local water supplies to evaluate water needs for the next 20 years. WSC evaluated water supply reliability by reviewing historical water supply and demand during multiple dry year periods.

Recycled Water Concept Study & Grant Application

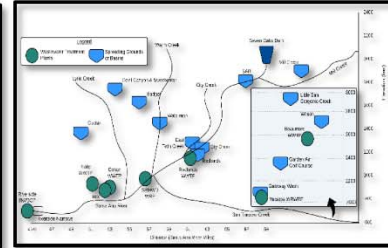
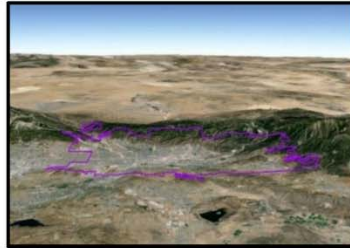
San Bernardino Valley Municipal Water District

Relevance to Valley District:

- Utilize existing data and relationships to decrease time and money.
- Identifying current and future water demands.
- Providing recommendations to meet future water goals.
- Quantifying resources and ranking them based on reliability, cost, and risk.
- Conducting a triple bottom line analysis to evaluate and rank alternatives.

Reference:

Mr. Bob Tincher, PE
Manager of Engineering and Planning
 San Bernardino Valley Municipal Water District
 380 Vanderbilt Way
 San Bernardino, CA 92408
 (909) 387-9215



Program Overview

WSC is working with Valley District and multiple local agencies to identify regional recycled water projects that maximize regional benefits to water supply reliability, water quality, and habitat sustainability.

California’s extreme drought has magnified the needs to the San Bernardino Valley agencies to develop a portion of this discharge into new local water supply sources in the near term. A key challenge for the region is balancing their water supply needs with the need to conserve and maintain the natural rivers and streams that provide habitat for a diversity of unique and rare species in the watershed.

As part of the study’s scope, WSC is collaborating with the Valley District and their local agency partners to identify existing recycled water projects, planned projects, and work with the project team to develop new recycled water concepts. Recycled water alternatives will be evaluated using a triple bottom line scoring criteria, including environmental, economic, and social criteria.

In parallel, WCS is preparing and submitting grant application(s) to fund the selected projects.

Recycled Water Facilities Master Plan

West Valley Water District

Relevance to Valley District:

- Investigated recycled water supply options for a water agency in Valley District's service area and gained familiarity with regional issues.
- Identified potential recycled water supplies from local wastewater agencies.
- Compiled customer and planning data in GIS to spatially allocate potential current and future recycled water demands.
- Facilitated stakeholder meetings to brainstorm and evaluate opportunities to implement cooperative recycled water projects.
- Performed a cost benefit analysis for conceptual RW programs.

Reference:

Mr. Thomas Crowley
Asst. General Manager
 West Valley Water District
 855 W. Base Line
 Rialto, CA 92377
 (909) 875-1804, ext. 702



Program Overview

WSC prepared Part 1 and 2 of a Recycled Water Master Plan (RWMP) for West Valley Water District. The District supplies potable water to over 60,000 people within the Cities of Rialto, Fontana and Colton, and the Counties of San Bernardino and Riverside and is investigating recycled water as a supplemental source. The District faces challenges to implementing a recycled water program because they serve a jurisdictionally complex area and do not have rights to wastewater.

Part 1 of the RWMP includes recycled water system goals and objectives, recycled water demand analysis, jurisdictional considerations and regulatory context, and funding and financing options. Throughout this effort, WSC identified and evaluated regulatory and jurisdictional constraints within the San Bernardino Valley related to water supply and recycled water.

To understand the potential demand for recycled water in the District, WSC compiled customer consumption records and planning information into GIS and spatially allocated potential recycled water customers and recycled water sources to enable visualization of optimized recycled water alternatives.

Part 2 included a recycled water source analysis to identify local wastewater sources and agencies the District may be able to partner with to implement a recycled water program. WSC facilitated workshops with these outside stakeholders to explore potential partnerships and brainstorm conceptual recycled water programs.

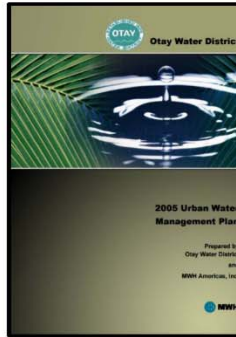
WSC performed a cost/benefit analysis for a conceptual recycled water program, which included an environmental constraints analysis and a conceptual business model.

2005 Urban Water Management Plan
 Otay Water District, CA

Relevance to Valley District:

- Adapted the draft UWMP to maintain consistency with updated projections of supply and demand from SDCWA and MWDSC.
- WSC's familiarity with local issues including growth pressures and new supply projects under development mean there will be no learning curve for the team to get up to speed.

Reference:
Mr. Stephen Bepler, PE
 Senior Civil Engineer
 Otay Water District
 2554 Sweetwater Springs Blvd.
 Spring Valley, CA 91978
 (619) 670-2209



Program Overview

Proposed Project Manager, Jeroen Olthof prepared the 2005 UWMP Update for the Otay Water District.

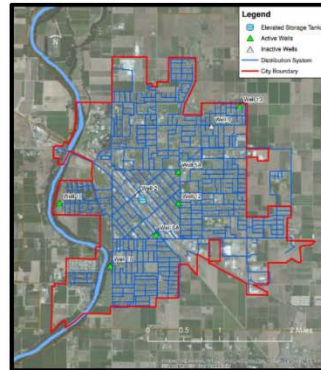
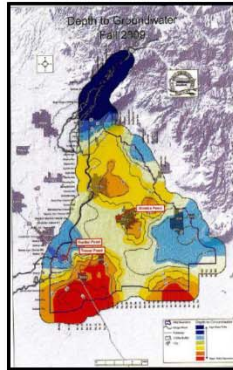
While with a previous firm, Jeroen worked with District staff to prepare the 2005 UWMP Update to conform to the UWMP Act. Jeroen developed 25 year population and demand projections by customer sector, evaluated supply reliability, and prepared a recycled water plan. The District serves more than 217,000 people in portions of the cities of Spring Valley, La Presa, Rancho San Diego, Jamul, eastern Chula Vista and eastern Otay Mess. The District meets its customer demands primarily with local groundwater and imported water purchased from the San Diego County Water Authority, the Metropolitan Water District of Southern California, and the Helix Water District. The District has studied and is evaluating additional supply projects, including groundwater development and seawater desalination.

2010 Urban Water Management Plan
City of Reedley, CA

Relevance to Valley District:

- Project required coordination with an on-going update of the City's water master plan and wastewater master plan.
- Growth projections needed to be coordinated with regional agencies, and projected demands needed to be consistent with projected wastewater flows for a potential recycled water project.
- Leveraged previously prepared documents and analysis to cost-effectively prepare an update that met all DWR requirements.

Reference:
Mr. Mike Pardo
Lead Senior Engineer Assistant
 City of Reedley – Water Systems Division
 1733 Ninth St
 Reedley, CA 93654
 (559) 637-4200, ext. 223



Program Overview

Jeroen Olthof provided QA/QC and Technical Support for the 2010 UWMP for the City of Reedley.

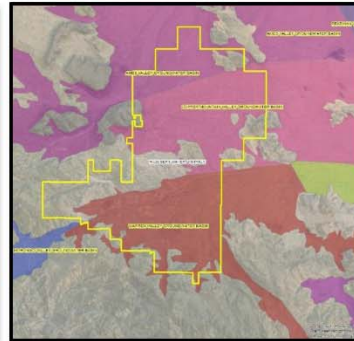
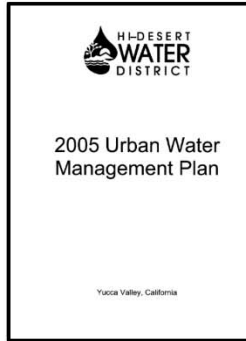
While with a previous firm, Jeroen participated in the District's 2010 UWMP to address comments provided by DWR. Jeroen worked with the team to update the chapters related to water demands, water supply, water shortage contingency plan, recycled water, supply and demand comparisons, and demand management. The City serves municipal water to over 24,100 people. The City services an area of approximately 5 square miles through over 6,000 active service connections.

2005 Urban Water Management Plan
 Hi-Desert Water District, CA

Relevance to Valley District:

- Cost-effectively compiled on-going work by other consultants and prepared a document that met all DWR requirements.
- Coordinated with wholesale agencies who provided a significant portion of the District's total supply.
- Fully documented the District's water conservation efforts, including reporting of Demand Management Measures.
- Deeply familiar with the DWR's requirements and what it takes to have a completed document.

Reference:
Mr. Ed Muzik
 General Manager
 Hi-Desert Water District
 55439 29 Palms Hwy
 Yucca Valley, CA 92284
 (760) 228-6269



Program Overview

Jeroen Olthof prepared an updated 2005 UWMP for the Hi-Desert Water District.

While with a previous firm, Jeroen worked with District staff to prepare an updated 2005 UWMP. Another team had prepared an initial UWMP, and DWR had determined the document to be incomplete during its review process. Jeroen updated key chapters including water demands, water supply, water shortage contingency plan, recycled water, supply and demand comparisons, and demand management measures. The updated 2005 UWMP allowed the District to move forward with funding applications for major projects.



Date: October 7, 2015

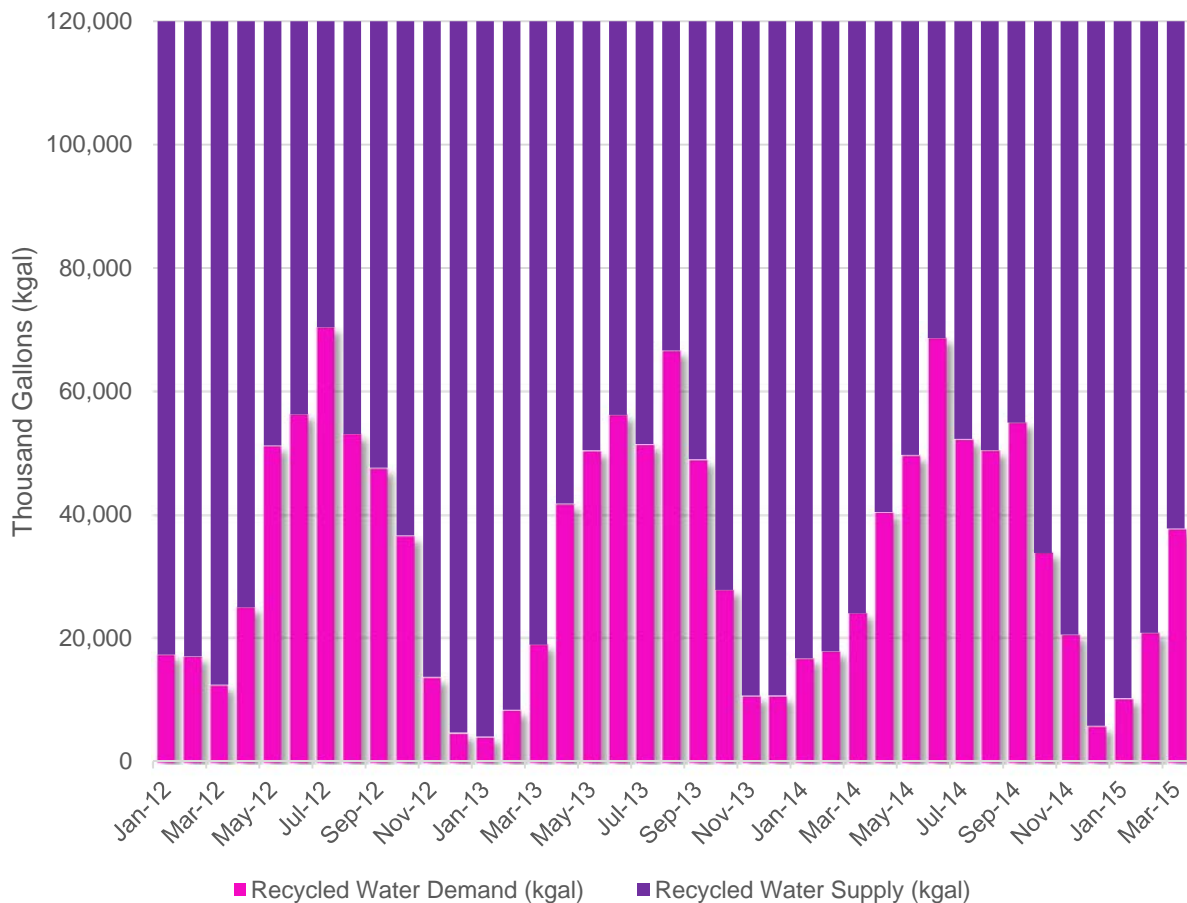
Prepared By: Brent Anton, Engineering Manager

Subject: Award of a Contract for the Construction of the NB-12.2 Recycled Water Booster Station

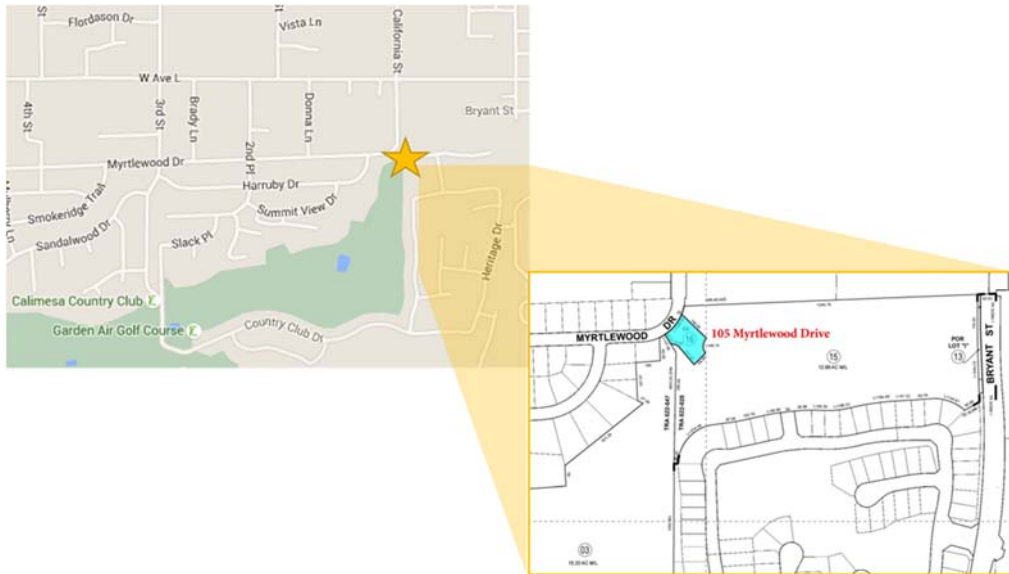
Recommendation: That the Board awards a construction contract to Weka, Inc. for a sum not to exceed \$317,772.

Over the past decade, the Yucaipa Valley Water District has been expanding the recycled water system to reduce the amount of potable water used by our community for irrigation purposes. Currently the District uses only a portion of the total recycled water available to be used by our community.

Monthly Recycled Water Supply and Demand

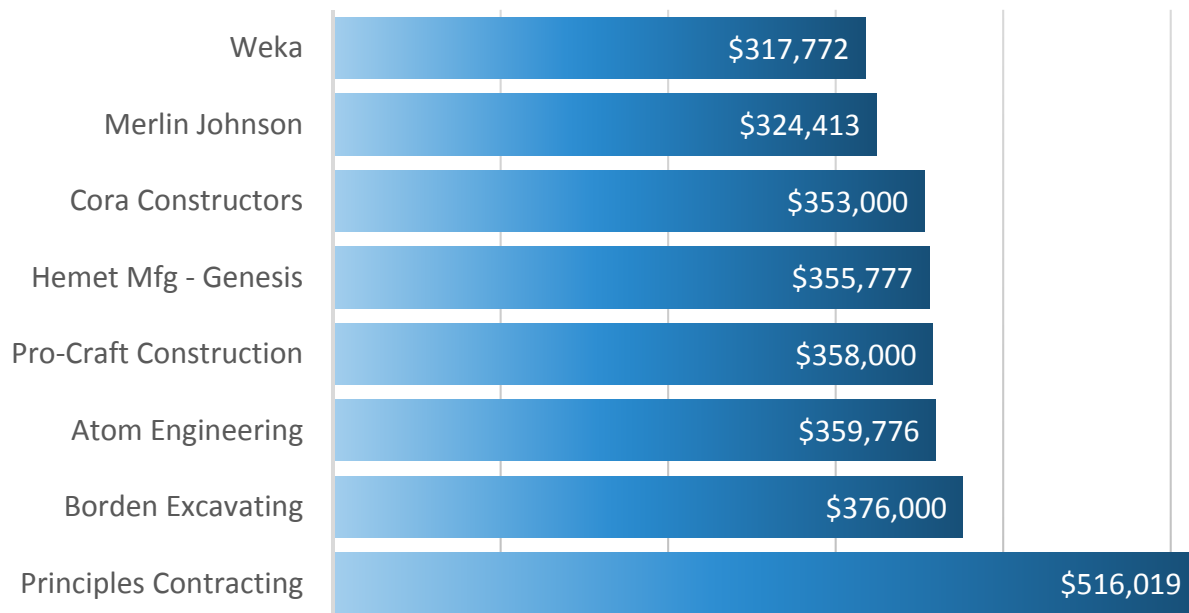


On August 5, 2015, the Board of Directors authorized the District staff to solicit bids for the construction of an interim recycled water booster station at the intersection of Myrtlewood Drive and California Street. The project will include the construction of a 300 gallon per minute pre-packaged booster station, approximately 200 linear feet of 24", 20" and 12" piping and electrical work.



On Tuesday, September 29, 2015, the District conducted the bid opening with the following results.

PRELIMINARY BID RESULTS



The bid submittals have been reviewed by Krieger & Stewart with a recommendation of award in the attached letter.

This project is categorically exempt from environmental review in accordance with the California Environmental Quality Act Guidelines Section 15301(c).

Financial Considerations:

Funding for this project will be from recycled water depreciation reserves.



October 1, 2015

818-94.6 F/C

Brent Anton, Engineering Manager
 Yucaipa Valley Water District
 12770 Second Street
 Yucaipa, CA 92399

Subject: NB-12.2 Interim Booster Station
 Bid Results and Award Recommendation

Dear Mr. Anton:

On September 29, 2015, the Yucaipa Valley Water District (District) received eight bids for subject project; the results and engineer's estimate are as follows (a breakdown by bid item is shown in the attached Bid Results table):

<u>Contractor</u>	<u>Bid Amount</u>
Weka, Inc.	\$317,772.00
Merlin Johnson Construction, Inc.	\$324,413.00
Hemet Mfg. dba: Genesis Construction	\$355,777.00
Cora Constructors, Inc.	\$353,000.00
Pro-Craft Construction, Inc.	\$358,000.00
AToM Engineering Construction, Inc.	\$359,776.00
Borden Excavating, Inc.	\$376,000.00
Principles Contracting, Inc.	\$516,019.00
Engineer's Estimate	\$310,000.00

The low bidder is Weka, Inc. in the amount of \$317,772.00. The bid documents submitted by Weka, Inc. are in order.

Since construction of the NB-12.2 Interim Booster Station is necessary to convert customers from the potable water system to the recycled water system to meet State mandates, and since Weka, Inc. is an experienced, capable contractor with a current Class A Contractor's License (No. 670100), we recommend award of subject work to Weka, Inc. in the amount of \$317,772.00.

If you have any questions, please call.

Sincerely,

KRIEGER & STEWART

A handwritten signature in blue ink that reads 'Patrick M. Watson'.

Patrick M. Watson

PMW/lge
 818-94-RECAWARD

Attachment: Bid Results



JOB NO. 816-94.5 (B)

YUCAIPA VALLEY WATER DISTRICT
NB-12.2 INTERIM BOOSTER STATION
BID SUMMARY SHEET
BID OPENING: SEPTEMBER 29, 2015 AT 2:00 PM

ITEM NO.	DESCRIPTION	QTY	UNIT	WEKA, INC.		MERLIN JOHNSON CONSTRUCTION, INC.		HEMET MFG. CO., DBA GENESIS CONSTRUCTION		CORA CONSTRUCTORS, INC.		PRO-CRAFT CONSTRUCTION, INC.		A TOM ENGINEERING CONSTRUCTION, INC.		BORDEN EXCAVATING, INC.		PRINCIPLES CONTRACTING, INC.	
				UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
101	Contract bonds, insurance and permits not to exceed 3% of bid amount.	1	L.S.	\$6,000.00	\$6,000.00			\$10,000.00	\$10,000.00	\$9,000.00	\$9,000.00	\$8,000.00	\$8,000.00	\$6,000.00	\$6,000.00	\$9,000.00	\$9,000.00	\$14,600.00	\$14,600.00
102	\$2,500 allowance for City permits and inspection.	1	L.S.	Set Amount	\$2,500.00	Set Amount	\$2,500.00	Set Amount	\$2,500.00	Set Amount	\$2,500.00	Set Amount	\$2,500.00	Set Amount	\$2,500.00	Set Amount	\$2,500.00	Set Amount	\$2,500.00
103	Mobilization of equipment, materials, and labor (not to exceed 3% of bid amount).	1	L.S.	\$6,000.00	\$6,000.00	\$2,000.00	\$2,000.00	\$10,000.00	\$10,000.00	\$9,000.00	\$9,000.00	\$7,000.00	\$7,000.00	\$9,000.00	\$9,000.00	\$1,000.00	\$1,000.00	\$13,446.00	\$13,446.00
104	State required line item for Sections 8706 and 8707, excavation safety measures.	1	L.S.	\$3,670.00	\$3,670.00	\$2,000.00	\$2,000.00	\$2,277.00	\$2,277.00	\$1.00	\$1.00	\$2,500.00	\$2,500.00	\$3,000.00	\$3,000.00	\$500.00	\$500.00	Illegible	Illegible
105	Construct site grading including overexcavation, recompaction, line grading, and all related work.	1	L.S.	\$3,000.00	\$3,000.00	\$5,700.00	\$5,700.00	\$15,000.00	\$15,000.00	\$3,870.00	\$3,870.00	\$8,500.00	\$8,500.00	\$15,000.00	\$15,000.00	\$6,000.00	\$6,000.00	Illegible	Illegible
106	Furnish and install non-potable piping and fittings (including valves, couplings, fittings, etc.) and all related work.	1	L.S.	\$136,902.00	\$136,902.00	\$151,915.00	\$151,915.00	\$162,000.00	\$162,000.00	\$111,000.00	\$111,000.00	\$140,000.00	\$140,000.00	\$143,000.00	\$143,000.00	\$178,000.00	\$178,000.00	Illegible	Illegible
107	Furnish and install packaged booster station, and all related work.	1	L.S.	\$80,000.00	\$80,000.00	\$65,900.00	\$65,900.00	\$75,000.00	\$75,000.00	\$111,000.00	\$111,000.00	\$102,000.00	\$102,000.00	\$60,000.00	\$60,000.00	\$110,000.00	\$110,000.00	\$108,100.00	\$108,100.00
108	Remove, remove, and dispose of existing A.C. pavement and base as required for trenching. Furnish and install all materials and labor in accordance with City of Calimesa Standard Transit Repair Drawing and General Notes.	1	L.S.	\$4,500.00	\$4,500.00	\$10,900.00	\$10,900.00	\$5,000.00	\$5,000.00	\$10,000.00	\$10,000.00	\$15,000.00	\$15,000.00	\$10,000.00	\$10,000.00	\$4,500.00	\$4,500.00	Illegible	Illegible
109	Furnish and install electrical service and distribution panel, and all appurtenances, including connections to equipment, electrical conduit, conductors, pull boxes, grounding systems, and all related work.	1	L.S.	\$39,000.00	\$39,000.00	\$39,400.00	\$39,400.00	\$39,000.00	\$39,000.00	\$46,000.00	\$46,000.00	\$52,000.00	\$52,000.00	\$46,000.00	\$46,000.00	\$40,000.00	\$40,000.00	\$26,162.00	\$26,162.00
110	Furnish and install all Southern California Edison-related facilities, including conduits to service panel and coordination with Southern California Edison, and all related work.	1	L.S.	\$4,300.00	\$4,300.00	\$17,500.00	\$17,500.00	\$4,000.00	\$4,000.00	\$22,000.00	\$22,000.00	\$4,000.00	\$4,000.00	\$12,000.00	\$12,000.00	\$7,500.00	\$7,500.00	\$11,500.00	\$11,500.00
111	Furnish and install all protective coatings.	1	L.S.	\$1,500.00	\$1,500.00	\$2,000.00	\$2,000.00	\$1,000.00	\$1,000.00	\$4,000.00	\$4,000.00	\$250.00	\$250.00	\$6,500.00	\$6,500.00	\$2,500.00	\$2,500.00	\$3,680.00	\$3,680.00
112	Perform startup and testing and provide operation and maintenance manuals and training.	1	L.S.	\$1,500.00	\$1,500.00	\$5,100.00	\$5,100.00	\$1,000.00	\$1,000.00	\$6,200.00	\$6,200.00	\$6,200.00	\$6,200.00	\$1,776.00	\$1,776.00	\$1,500.00	\$1,500.00	\$10,750.00	\$10,750.00

YUCAIPA VALLEY WATER DISTRICT
 NB-12.2 INTERIM BOOSTER STATION
 BID SUMMARY SHEET
 BID OPENING: SEPTEMBER 29, 2015 AT 2:00 PM

JOB NO. 816-94.5 (B)

ITEM NO.	DESCRIPTION	QTY	WEKA, INC.		MERLIN JOHNSON CONSTRUCTION, INC.		HEMET MFG. CO., DBA GENESIS CONSTRUCTION		CORA CONSTRUCTORS, INC.		PRO-CRAFT CONSTRUCTION, INC.		A TOM ENGINEERING CONSTRUCTION, INC.		BORDEN EXCAVATING, INC.		PRINCIPLES CONTRACTING, INC.			
			UNIT	PRICE	UNIT	PRICE	UNIT	PRICE	UNIT	PRICE	UNIT	PRICE	UNIT	PRICE	UNIT	PRICE	UNIT	PRICE	UNIT	PRICE
113	Demolish and clean-up.	1	L.S.	\$2,000.00	\$2,000.00	\$2,000.00	\$1,000.00	\$3,000.00	\$3,000.00	\$25.00	\$25.00	\$3,000.00	\$3,000.00	\$1,500.00	\$1,500.00	\$17,116.00	\$17,116.00			
114	All other items of work not included in the above bid items required for a complete and functional project in compliance with the Contract Documents.	1	L.S.	\$6,000.00	\$6,000.00	\$10,000.00	\$25,000.00	\$6,629.00	\$6,629.00	\$25.00	\$25.00	\$7,000.00	\$7,000.00	\$1,500.00	\$1,500.00	\$17,250.00	\$17,250.00			
115	Owner-directed field orders preauthorized by District	1	L.S.	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	
			Subtotal	\$317,772.00	\$324,413.00	\$324,413.00	\$351,777.00	\$355,000.00	\$355,000.00	\$358,000.00	\$358,000.00	\$358,000.00	\$358,000.00	\$358,000.00	\$376,000.00	\$376,000.00	\$516,919.00	\$516,919.00	\$0.00	\$0.00
			Last Minute Adjustment	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
			Total	\$317,772.00	\$324,413.00	\$324,413.00	\$355,777.00	\$355,000.00	\$355,000.00	\$358,000.00	\$358,000.00	\$358,000.00	\$358,000.00	\$358,000.00	\$376,000.00	\$376,000.00	\$516,919.00	\$516,919.00	\$0.00	\$0.00



Director Comments



Yucaipa Valley Water District



FACTS ABOUT THE YUCAIPA VALLEY WATER DISTRICT

Service Area Size: 40 square miles (sphere of influence is 68 square miles)

Elevation Change: 3,140 foot elevation change (from 2,044 to 5,184 feet)

Number of Employees: 5 elected board members
57 full time employees

Operating Budget: Water Division - \$13,072,750
Sewer Division - \$11,689,000
Recycled Water Division - \$433,500
Total Annual Budget - \$25,195,250

Number of Services: 12,206 water connections serving 16,843 units
13,492 sewer connections serving 20,312 units
62 recycled water connections

Water System: 215 miles of drinking water pipelines
27 reservoirs - 34 million gallons of storage capacity
18 pressure zones
12,000 ac-ft annual water demand (3.9 billion gallons)
Two water filtration facilities:
- 1 mgd at Oak Glen Surface Water Filtration Facility
- 12 mgd at Yucaipa Valley Regional Water Filtration Facility

Sewer System: 8.0 million gallon treatment capacity - current flow at 4.0 mgd
205 miles of sewer mainlines
5 sewer lift stations
4,500 ac-ft annual recycled water prod. (1.46 billion gallons)

Recycled Water: 22 miles of recycled water pipelines
5 reservoirs - 12 million gallons of storage
1,200 ac-ft annual recycled demand (0.4 billion gallons)

Brine Disposal: 2.2 million gallon desalination facility at sewer treatment plant
1.108 million gallons of Inland Empire Brine Line capacity
0.295 million gallons of treatment capacity in Orange County



THE MEASUREMENT OF WATER PURITY

One part per hundred is generally represented by the percent (%).
This is equivalent to about fifteen minutes out of one day.

One part per thousand denotes one part per 1000 parts.
This is equivalent to about one and a half minutes out of one day.

One part per million (ppm) denotes one part per 1,000,000 parts.
This is equivalent to about 32 seconds out of a year.

One part per billion (ppb) denotes one part per 1,000,000,000 parts.
This is equivalent to about three seconds out of a century.

One part per trillion (ppt) denotes one part per 1,000,000,000,000 parts.
This is equivalent to about three seconds out of every hundred thousand years.

One part per quadrillion (ppq) denotes one part per 1,000,000,000,000,000 parts.
This is equivalent to about two and a half minutes out of the age of the Earth (4.5 billion years).





GLOSSARY OF COMMONLY USED TERMS

Every profession has specialized terms which generally evolve to facilitate communication between individuals. The routine use of these terms tends to exclude those who are unfamiliar with the particular specialized language of the group. Sometimes jargon can create communication cause difficulties where professionals in related fields use different terms for the same phenomena.

Below are commonly used water terms and abbreviations with commonly used definitions. If there is any discrepancy in definitions, the District's Regulations Governing Water Service is the final and binding definition.

Acre Foot of Water - The volume of water (325,850 gallons, or 43,560 cubic feet) that would cover an area of one acre to a depth of 1 foot.

Activated Sludge Process – A secondary biological sewer treatment process where bacteria reproduce at a high rate with the introduction of excess air or oxygen, and consume dissolved nutrients in the wastewater.

Annual Water Quality Report - The document is prepared annually and provides information on water quality, constituents in the water, compliance with drinking water standards and educational material on tap water. It is also referred to as a Consumer Confidence Report (CCR).

Aquifer - The natural underground area with layers of porous, water-bearing materials (sand, gravel) capable of yielding a supply of water; see Groundwater basin.

Backflow - The reversal of water's normal direction of flow. When water passes through a water meter into a home or business it should not reverse flow back into the water mainline.

Best Management Practices (BMPs) - Methods or techniques found to be the most effective and practical means in achieving an objective. Often used in the context of water conservation.

Biochemical Oxygen Demand (BOD) – The amount of oxygen used when organic matter undergoes decomposition by microorganisms. Testing for BOD is done to assess the amount of organic matter in water.

Biosolids – Biosolids are nutrient rich organic and highly treated solid materials produced by the sewer treatment process. This high-quality product can be used as a soil amendment on farm land or further processed as an earth-like product for commercial and home gardens to improve and maintain fertile soil and stimulate plant growth.

Catch Basin – A chamber usually built at the curb line of a street, which conveys surface water for discharge into a storm sewer.

Capital Improvement Program (CIP) – Projects for repair, rehabilitation, and replacement of assets. Also includes treatment improvements, additional capacity, and projects for the support facilities.

Collector Sewer – The first element of a wastewater collection system used to collect and carry wastewater from one or more building sewer laterals to a main sewer.

Coliform Bacteria – A group of bacteria found in the intestines of humans and other animals, but also occasionally found elsewhere and is generally used as an indicator of sewage pollution.

Combined Sewer Overflow – The portion of flow from a combined sewer system, which discharges into a water body from an outfall located upstream of a wastewater treatment plant, usually during wet weather conditions.

Combined Sewer System– Generally older sewer systems designed to convey both sewage and storm water into one pipe to a wastewater treatment plant.

Conjunctive Use - The coordinated management of surface water and groundwater supplies to maximize the yield of the overall water resource. Active conjunctive use uses artificial recharge, where surface water is intentionally percolated or injected into aquifers for later use. Passive conjunctive use is to simply rely on surface water in wet years and use groundwater in dry years.

Consumer Confidence Report (CCR) - see Annual Water Quality Report.

Cross-Connection - The actual or potential connection between a potable water supply and a non-potable source, where it is possible for a contaminant to enter the drinking water supply.

Disinfection By-Products (DBPs) - The category of compounds formed when disinfectants in water systems react with natural organic matter present in the source water supplies. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established have been identified in drinking water, including trihalomethanes, haloacetic acids, bromate, and chlorite

Drought - a period of below average rainfall causing water supply shortages.

Dry Weather Flow – Flow in a sanitary sewer during periods of dry weather in which the sanitary sewer is under minimum influence of inflow and infiltration.

Fire Flow - The ability to have a sufficient quantity of water available to the distribution system to be delivered through fire hydrants or private fire sprinkler systems.

Gallons per Capita per Day (GPCD) - A measurement of the average number of gallons of water use by the number of people served each day in a water system. The calculation is made by dividing the total gallons of water used each day by the total number of people using the water system.

Groundwater Basin - An underground body of water or aquifer defined by physical boundaries.

Groundwater Recharge - The process of placing water in an aquifer. Can be a naturally occurring process or artificially enhanced.

Hard Water - Water having a high concentration of minerals, typically calcium and magnesium ions.

Hydrologic Cycle - The process of evaporation of water into the air and its return to earth in the form of precipitation (rain or snow). This process also includes transpiration from plants, percolation into the ground, groundwater movement, and runoff into rivers, streams and the ocean; see Water cycle.

Infiltration – Water other than sewage that enters a sewer system and/or building laterals from the ground through defective pipes, pipe joints, connections, or manholes. Infiltration does not include inflow. See *Inflow*.

Inflow - Water other than sewage that enters a sewer system and building sewer from sources such as roof vents, yard drains, area drains, foundation drains, drains from springs and swampy areas, manhole covers, cross connections between storm drains and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include infiltration. See *Infiltration*.

Inflow / Infiltration (I/I) – The total quantity of water from both inflow and infiltration.

Mains, Distribution - A network of pipelines that delivers water (drinking water or recycled water) from transmission mains to residential and commercial properties, usually pipe diameters of 4" to 16".

Mains, Transmission - A system of pipelines that deliver water (drinking water or recycled water) from a source of supply the distribution mains, usually pipe diameters of greater than 16".

Meter - A device capable of measuring, in either gallons or cubic feet, a quantity of water delivered by the District to a service connection.

Overdraft - The pumping of water from a groundwater basin or aquifer in excess of the supply flowing into the basin. This pumping results in a depletion of the groundwater in the basin which has a net effect of lowering the levels of water in the aquifer.

Peak Flow – The maximum flow that occurs over a specific length of time (e.g., daily, hourly, instantaneously).

Pipeline - Connected piping that carries water, oil or other liquids. See Mains, Distribution and Mains, Transmission.

Point of Responsibility, Metered Service - The connection point at the outlet side of a water meter where a landowner's responsibility for all conditions, maintenance, repairs, use and replacement of water service facilities begins, and the District's responsibility ends.

Potable Water - Water that is used for human consumption and regulated by the California Department of Public Health.

Pressure Reducing Valve - A device used to reduce the pressure in a domestic water system when the water pressure exceeds desirable levels.

Pump Station - A drinking water or recycled water facility where pumps are used to push water up to a higher elevation or different location.

Reservoir - A water storage facility where water is stored to be used at a later time for peak demands or emergencies such as fire suppression. Drinking water and recycled water systems will typically use concrete or steel reservoirs. The State Water Project system considers lakes, such as Shasta Lake and Folsom Lake to be water storage reservoirs.

Runoff - Water that travels downward over the earth's surface due to the force of gravity. It includes water running in streams as well as over land.

Sanitary Sewer System - Sewer collection system designed to carry sewage, consisting of domestic, commercial, and industrial wastewater. This type of system is not designed nor intended to carry water from rainfall, snowmelt, or groundwater sources. See *Combined Sewer System*.

Sanitary Sewer Overflow – Overflow from a sanitary sewer system caused when total wastewater flow exceeds the capacity of the system. See *Combined Sewer Overflow*.

Santa Ana River Interceptor (SARI) Line – A regional brine line designed to convey 30 million gallons per day of non-reclaimable wastewater from the upper Santa Ana River basin to the sewer treatment plant operated by Orange County Sanitation District.

Secondary Treatment – Biological sewer treatment, particularly the activated-sludge process, where bacteria and other microorganisms consume dissolved nutrients in wastewater.

Supervisory Control and Data Acquisition (SCADA) - A computerized system which provides the ability to remotely monitor and control water system facilities such as reservoirs, pumps and other elements of water delivery.

Service Connection - The water piping system connecting a customer's system with a District water main beginning at the outlet side of the point of responsibility, including all plumbing and equipment located on a parcel required for the District's provision of water service to that parcel.

Sludge – Untreated solid material created by the treatment of sewage.

Smart Irrigation Controller - A device that automatically adjusts the time and frequency which water is applied to landscaping based on real-time weather such as rainfall, wind, temperature and humidity.

Special District - A political subdivision of a state established to provide a public services, such as water supply or sanitation, within a specific geographic area.

Surface Water - Water found in lakes, streams, rivers, oceans or reservoirs behind dams.

Total Suspended Solids (TSS) – The amount of solids floating and in suspension in water or sewage.

Transpiration - The process by which water vapor is released into the atmosphere by living plants.

Trickling Filter – A biological secondary treatment process in which bacteria and other microorganisms, growing as slime on the surface of rocks or plastic media, consume nutrients in primary treated sewage as it trickles over them.

Underground Service Alert (USA) - A free service that notifies utilities such as water, telephone, cable and sewer companies of pending excavations within the area (dial 8-1-1 at least 2 working days before you dig).

Urban Runoff - Water from city streets and domestic properties that typically carries pollutants into the storm drains, rivers, lakes, and oceans.

Valve - A device that regulates, directs or controls the flow of water by opening, closing or partially obstructing various passageways.

Wastewater – Any water that enters the sanitary sewer.

Water Banking - The practice of actively storing or exchanging in-lieu surface water supplies in available groundwater basin storage space for later extraction and use by the storing party or for sale or exchange to a third party. Water may be banked as an independent operation or as part of a conjunctive use program.

Water cycle - The continuous movement water from the earth's surface to the atmosphere and back again; see Hydrologic cycle.

Water Pressure - Pressure created by the weight and elevation of water and/or generated by pumps that deliver water to the tap.

Water Service Line - The pipeline that delivers potable water to a residence or business from the District's water system. Typically the water service line is a 1" to 1½" diameter pipe for residential properties.

Watershed - A region or land area that contributes to the drainage or catchment area above a specific point on a stream or river.

Water Table - The upper surface of the zone of saturation of groundwater in an unconfined aquifer.

Water Transfer - A transaction, in which a holder of a water right or entitlement voluntarily sells/exchanges to a willing buyer the right to use all or a portion of the water under that water right or entitlement.

Water Well - A hole drilled into the ground to tap an underground water aquifer.

Wetlands - Lands which are fully saturated or under water at least part of the year, like seasonal vernal pools or swamps.

Wet Weather Flow – Dry weather flow combined with stormwater introduced into a combined sewer system, and dry weather flow combined with infiltration/inflow into a separate sewer system.





COMMONLY USED ABBREVIATIONS

AQMD	Air Quality Management District
BOD	Biochemical Oxygen Demand
CARB	California Air Resources Board
CCTV	Closed Circuit Television
CWA	Clean Water Act
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FOG	Fats, Oils, and Grease
GPD	Gallons per day
MGD	Million gallons per day
O & M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
POTW	Publicly Owned Treatment Works
PPM	Parts per million
RWQCB	Regional Water Quality Control Board
SARI	Santa Ana River Inceptor
SAWPA	Santa Ana Watershed Project Authority
SBVMWD	San Bernardino Valley Municipal Water District
SCADA	Supervisory Control and Data Acquisition system
SSMP	Sanitary Sewer Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
WDR	Waste Discharge Requirements
YVWD	Yucaipa Valley Water District