



# Yucaipa Valley Water District

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

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

Wednesday, February 3, 2016 at 6:00 p.m.

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- 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 - January 20, 2016
    - 2. Board Workshop - January 26, 2016
- V. **BOARD REPORTS**
  - A. San Gorgonio Pass Regional Water Alliance - Technical Committee Meeting - January 27, 2016
  - B. San Gorgonio Pass Regional Water Alliance - Regular Meeting - January 27, 2016
  - C. Reports by Board Members
- VI. **STAFF REPORT**
- VII. **DISCUSSION ITEMS**
  - A. Demolition of the Building, Basement and Foundation at 35192 Cedar Avenue, Yucaipa (Assessor Parcel Number 0303-232-17) [[Director Memorandum No. 16-012 - Page 19 of 44](#)]
    - RECOMMENDED ACTION: That the Board approves a contract with Dustin Smith Equipment, DSE Grading and Demo for a sum not to exceed \$19,900.

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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](http://www.yvwd.dst.ca.us)

- B. Consideration of a Master Recycled Water Agreement between Yucaipa Valley Water District and Western Heights Mutual Water Company [[Director Memorandum No. 16-013 - Page 24 of 44](#)]  
 RECOMMENDED ACTION: That the Board approves the Agreement Concerning Recycled Water as presented.
- C. Consideration of Resolution No. 2016-08 Supporting the Application for a Water and Energy Efficiency Grant from the Department of Interior, Bureau of Reclamation [[Director Memorandum No. 16-014 - Page 33 of 44](#)]  
 RECOMMENDED ACTION: That the Board adopts Resolution No. 2016-08 as presented.
- D. Consideration of Resolution No. 2016-09 Supporting the Application for a Lower Colorado Region, Water Conservation Field Services Grant for Fiscal Year 2016 from the Department of Interior, Bureau of Reclamation [[Director Memorandum No. 16-015 - Page 35 of 44](#)]  
 RECOMMENDED ACTION: That the Board adopts Resolution No. 2016-09 as presented.

**VIII. DIRECTORS COMMENTS**

**IX. ANNOUNCEMENTS**

- A. February 9, 2016 at 4:00 p.m. - Board Workshop
- B. February 17, 2016 at 6:00 p.m. - Regular Board Meeting
- C. February 23, 2016 at 4:00 p.m. - Board Workshop
- D. February 24, 2016 at 6:00 p.m. - San Gorgonio Pass Regional Water Resource Alliance at the City of Banning
- E. March 2, 2016 at 6:00 p.m. - Regular Board Meeting
- F. March 8, 2016 at 4:00 p.m. - Board Workshop
- G. March 16, 2016 at 6:00 p.m. - Regular Board Meeting
- H. March 23, 2016 at 6:00 p.m. - San Gorgonio Pass Regional Water Resource Alliance at the City of Banning
- I. March 29, 2016 at 4:00 p.m. - Board Workshop

**X. CLOSED SESSION**

- A. Conference with Legal Counsel - Anticipated Litigation (Government Code 54956.9(c))  
 One Case - Initiation of Litigation - San Gorgonio Pass Water Agency

**XI. ADJOURNMENT**

# Consent Calendar



Yucaipa Valley Water District

# MINUTES OF A REGULAR BOARD MEETING

January 20, 2016 at 6:00 P.M.

**Directors Present:**

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

**Staff Present:**

Joseph Zoba, General Manager  
Jack Nelson, Assistant General Manager  
Jennifer Ares, Water Resource Manager  
Vicky Elisalda, Controller  
John Hull, Public Works Manager  
Kevin King, Operations Manager

**Directors Absent:**

Tom Shalhoub, Director

**Consulting Staff Present:**

David Wysocki, Legal Counsel

**Registered Guests and Others Present:**

David Duron, Customer  
Richard Siegmund, Customer  
Linda Shelton, Customer  
Leonard Stevenson, San Gorgonio Pass Water Agency  
Steve Copelan, San Bernardino Valley Municipal Water District

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 Bruce Granlund led the pledge of allegiance.

FLAG SALUTE

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

ROLL CALL

David Duron provided information about the proposed water conservation target reductions proposed by the State Water Resources Control Board.

PUBLIC COMMENTS

Director Bruce Granlund 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. Board Workshop - December 8, 2015
2. Regular Board Meeting - December 16, 2015

B. Payment of Bills

1. Approve/Ratify Invoices for Board Awarded Contracts
2. Ratify General Expenses for December 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 - Absent

#### Reports by Board Members

- Director Bruce Granlund reported on the meeting of the San Geronio Pass Water Agency held on January 19, 2016.
- Director Jay Bogh reported on meetings in Sacramento with various legislators.
- Director Lonni Granlund reported on the City of Yucaipa Economic Development Advisory Committee meeting held on January 7, 2016.

#### BOARD REPORTS

General Manager Joseph Zoba discussed the following items:

- The Yucaipa Valley Regional Water Filtration Facility has been taken offline for a planned maintenance outage and will not be impacted by the outage of the State Water Project.
- The District staff is reviewing the proposed amendments to the water conservation regulations proposed by the State Water Resources Control Board.
- Additional staff report items were included in the meeting material.

#### STAFF REPORT

Following a staff presentation by Controller Vicky Elisalda, Director Bruce Granlund moved and Director Ken Munoz seconded a motion to receive and file the audited financial statements.

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 - Absent

#### DISCUSSION ITEMS:

DM 16-007  
UNAUDITED  
FINANCIAL REPORT  
FOR THE PERIOD  
ENDING ON  
DECEMBER 31, 2015

Following a staff presentation by Operations Manager Kevin King, Director Ken Munoz moved and Director Bruce Granlund seconded a motion to approve Change Order No. 1 for a sum not to exceed \$67,347.

The motion was approved by the following vote:

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

DM 16-008  
CONSIDERATION OF  
CHANGE ORDER NO.  
1 FOR THE  
WOCHHOLZ  
REGIONAL WATER  
RECYCLING FACILITY  
DIGESTER CLEANING

Director Tom Shalhoub - Absent

AND COVER  
REPLACEMENT  
PROJECT  
ASSOCIATED WITH  
ADDITIONAL COATING  
REPAIRS

Following a staff presentation by Operations Manager Kevin King, Director Bruce Granlund moved and Director Ken Munoz seconded a motion to authorize District staff to enter into a contract with Dudek for a sum not to exceed \$95,660.

DM 16-009  
GROUNDWATER AND  
SURFACE WATER  
MONITORING FOR  
THE MAXIMUM  
BENEFIT  
MONITORING  
PROGRAM

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 - Absent

Following a staff presentation by General Manager Joseph Zoba, Director Ken Munoz moved and Director Bruce Granlund seconded a motion to authorize the District staff to: (1) implement the necessary policies, procedures and priorities to distribute weather-based irrigation controllers for residential water customers pursuant to the State Water Resources Control Board Emergency Regulations and related Executive Orders by Governor Brown; (2) contract with Skydrop for the purchase of irrigation controllers and related equipment for the installation of 500 additional controllers; (3) provide regular updates on the status of this water conservation program; and (4) authorize the General Manager to amend or terminate the implementation of this program at any time.

DM 16-010  
AUTHORIZATION TO  
PURCHASE 500  
ADDITIONAL  
WEATHER BASED, WI-  
FI IRRIGATION  
CONTROLLERS FROM  
SKYDROP FOR  
RESIDENTIAL WATER  
CUSTOMERS OF THE  
YUCAIPA VALLEY  
WATER DISTRICT

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 - Absent

Following a staff presentation by General Manager Joseph Zoba and Public Works Manager John Hull, Director Bruce Granlund moved and Director Jay Bogh seconded a motion to that the Board finds the balance of \$3,804.75 (Invoice No. A-6996) is due and payable as presented for the construction related services received by the customer.

DM 16-011  
DISCUSSION  
REGARDING A  
DISPUTED INVOICE  
FOR THE  
INSTALLATION OF A 2"  
WATER SERVICE  
PIPELINE AT 8290  
OVERVIEW COURT,  
YUCAIPA - MR. RALPH  
MONGE

The motion was approved by the following vote:

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

Director Bruce Granlund discussed the current precipitation totals from the recent storms.

DIRECTOR  
COMMENTS

Director Ken Munoz discussed the issues of warm rainfall creating flooding issues in central/northern California with the current snowpack.

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

ANNOUNCEMENTS

Closed Session - Director Jay Bogh, Director Bruce Granlund, Director Lonni Granlund, and Director Ken Munoz were present in closed session with Legal Counsel David Wysocki and General Manager Joseph Zoba concerning the following items:

CLOSED SESSION

- A. Conference with Real Property Negotiator(s)  
Property: Assessor's Parcel Number(s): 0321-221-09  
Agency Negotiator: Joseph Zoba, General Manager  
Negotiating Parties: Ken Robinson, Robinson Ranch Investment Company  
Under Negotiation: Terms of Payment and Price for a Utility Easement

The Board Members reconvened from closed session into open session and Legal Counsel David Wysocki reported that direction was provided to the General Manager but no reportable action was taken in closed session.

The meeting was adjourned at 7:10 p.m.

ADJOURNMENT

Respectfully submitted,

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Joseph B. Zoba, Secretary

(Seal)

# MINUTES OF A BOARD WORKSHOP

January 26, 2016 at 4:00 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  
Brent Anton, Engineering Manager  
John Hull, Public Works Manager  
Jeremy Costello, Engineering Technician II  
Vicky Elisalda, Controller  
John Wrobel, Regulatory & Environmental Control  
Manager  
Thaxton Van Belle, Senior Plant Operator  
Jennifer Ares, Water Resource Manager

**Directors Absent:**

None

**Consulting Staff Present:**

David Wysocki, Legal Counsel

**Guests and Others Present:**

Diann Granlund, Customer  
Vanessa Register, Customer  
David Duron, Customer  
Richard Siegmund, Customer  
Jan Leja, Customer  
Linda Shelton, Customer

- I. Call to Order - 4:00 p.m.
- II. Public Comments - There were no public comments during this portion of the board workshop.
- III. Staff Report - General Manager Joseph Zoba discussed the following topics:
  - The San Gorgonio Pass Regional Water Alliance meeting will be held on Wednesday, January 27, 2016 at the City of Banning.
  - The California Department of Water Resources has increased the allotment of water from the State Water Project from 10% to 15%.
  - The Western Heights Mutual Water Company approved a recycled water service agreement for the Yucaipa High School.
  - The District staff has submitted water conservation grants for additional Skydrop irrigation controllers with the Bureau of Reclamation.
  - The Beaumont Cherry Valley Water District will be hosting a presentation from the San Gorgonio Pass Water Agency on February 10, 2016, regarding the collection of facility capacity charges.
- IV. Presentations
  - A. 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. 16-013] - General Manager Joseph Zoba reported on the District's water conservation efforts and the steps taken to achieve the required 36% water conservation goal required by the State Water Resources Control Board. During this agenda item, there was a consensus from the Board of Directors to continue with the installation of 500 additional Skydrop Irrigation Controllers.

- B. Overview of the Yucaipa Valley Water District's Strategic Plan for a Sustainable Future - The Integration and Preservation of Resources and Proposed Enhancements [Workshop Memorandum No. 16-014] - General Manager Joseph Zoba discussed the policy issues associated with the lack of imported water availability in the San Gorgonio Pass Water Agency and the need to further implement recycled water projects in the region. This discussion involved the implementation of a Maximum Allowable Water Use calculation for dual-plumbed homes.
- V. Operational Updates
- A. Overview of Operational Activities in Preparation and Response to the 2016 Winter Storm Events [Workshop Memorandum No. 16-015] - Engineering Manager Brent Anton provided information to the Board of Directors about the sewer bridge support project in Yucaipa Creek.
  - B. Review of Updated Standard Specifications for Drinking Water, Recycled Water, and Sewer Facilities [Workshop Memorandum No. 16-016] - Engineering Manager Brent Anton provided an overview of the proposed standard drawings.
- VI. Capital Improvement Projects
- A. Status Report on the Construction of a 6.0 Million Gallon Drinking Water Reservoir R-12.4 - Calimesa [Workshop Memorandum No. 16-017] - Engineering Manager Brent Anton provided an overview of the Reservoir R-12.4 project construction.
  - B. Status Report on the Digester Cleaning and Cover Replacement Project at the Wochholz Regional Water Recycling Facility [Workshop Memorandum No. 16-018] - Senior Plant Operator Thaxton Van Belle provided an overview of the digester project and Change Order No. 1 related to additional coating work.
- VII. Administrative Items
- A. Demolition of the Building, Basement and Foundation at 35192 Cedar Avenue, Yucaipa (Assessor Parcel Number 0303-232-17) [Workshop Memorandum No. 16-019] - General Manager Joseph Zoba provided an overview of the proposals to demolish structures at the District's Cedar Avenue property.
  - B. Overview of Procurement Methodologies and Emergency Procedures [Workshop Memorandum No. 16-020] - General Manager Joseph Zoba provided information about the standard proposal and emergency proposal process.
- VIII. Director Comments
- Director Ken Munoz requested an update on the paving issues on Palm Drive and the failure of the existing private roadway. Engineering Manager Brent Anton provided an overview of the roadway enhancements associated with the District's recycled water pipeline installation.
  - Director Tom Shalhoub discussed an opportunity to host the Associated San Bernardino County Special Districts meeting in December 2016. The Board of Directors provided a consensus for the District staff to support the evening meeting in December.
- IX. Adjournment - The meeting was adjourned at 5:20 p.m.

Respectfully submitted,

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Joseph B. Zoba, Secretary

# Board Reports



Yucaipa Valley Water District



## Technical Committee Meeting

Wednesday, January 27, 2016 at 4:30 p.m.

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

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1. Call to Order
2. Public Comments
3. Technical Committees of the San Gorgonio Pass Regional Water Resource Alliance
  - a. Messaging Subcommittee
  - b. Recycled Water Subcommittee
  - c. Water Conservation Subcommittee
4. Comments by Technical Committee Members
5. Announcements
  - a. Next Meeting Date for the Technical Committee: **Wednesday, February 24, 2016 at 4:30 pm**
6. Adjournment



## Notice and Agenda of a Regular Meeting Wednesday, January 27, 2016 at 6:00 p.m.

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

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1. Call to Order
2. Public Comments
3. Approval of Minutes
  - a. Alliance Meeting Minutes - October 28, 2015
4. Review of Financial Report
5. Presentations
  - a. Overview of Funding Opportunities for Member Agencies - Haig Kartounian
  - b. Member Agency Profile: City of Calimesa
6. Reports
  - a. Technical Committee Report
  - b. Sustainable Groundwater Management Plan Report
7. Discussion Items
8. Future Meeting Topics
  - a. Alliance Member Agency Profiles
    - i. February 2016 - High Valleys Water District
    - ii. March 2016 - Mission Springs Water District
    - iii. April 2016 - Morongo Band of Mission Indians
  - b. Other Meeting Topics
9. Comments by Alliance Members
10. Announcements
  - a. Next Meeting Date: **Wednesday, February 24, 2016 at 6:00 pm**
11. Adjournment

# San Gorgonio Pass Regional Water Alliance

Financial Statement - January 2015 to December 2015

| Date                          | Reference No.   | Description                    | Revenue           | Expenses          | Fund Balance       |
|-------------------------------|-----------------|--------------------------------|-------------------|-------------------|--------------------|
| <b>BEGINNING Fund Balance</b> |                 |                                |                   |                   | <b>\$15,678.02</b> |
| 04/07/15                      | 1900101509702JH | NICEGRAPHIX                    |                   | \$1,300.00        |                    |
| 05/14/15                      | 1900101513407JH | NICEGRAPHIX                    |                   | \$1,542.00        |                    |
| 06/10/15                      | 1900101516124JH | NICEGRAPHIX                    |                   | \$90.00           |                    |
| 07/28/15                      | 1900101520937JH | NICEGRAPHIX                    |                   | \$90.00           |                    |
| 08/10/15                      | TCR EDARC8501-3 | SAN GORONIO WATER AGENCY       | \$500.00          |                   |                    |
| 08/12/15                      | TCR EDARC8505-1 | MISSION SPRINGS WATER DIST SGW | \$500.00          |                   |                    |
| 08/17/15                      | TCR EDARC8506-1 | HIGH VALLEYS WATER             | \$500.00          |                   |                    |
| 08/25/15                      | TCR EDARC8524-3 | YUCAIPA VLYWATERDIST SGWTF     | \$500.00          |                   |                    |
| 09/04/15                      | TCR EDARC8537-1 | CABAZON WATER DIST SGWTF       | \$500.00          |                   |                    |
| 09/11/15                      | 1900101525414MM | NICEGRAPHIX                    | \$0.00            | \$90.00           |                    |
| 09/11/15                      | 1900101525415MM | NICEGRAPHIX                    | \$0.00            | \$90.00           |                    |
| 09/23/15                      | TCR EDARC 8552- | BANNING HEIGHTS MUT WATER TASK | \$500.00          |                   |                    |
| 10/09/15                      | 1900101528227MM | NICEGRAPHIX                    | \$0.00            | \$90.00           |                    |
| 10/15/15                      | TCR EDARC8584-2 | CITY OF CALIMESA SGPRWA        | \$500.00          |                   |                    |
| 11/20/15                      | EDARC TCR8637-1 | CABAZON WATER DISTRICT SGWTF   | \$500.00          |                   |                    |
|                               |                 |                                | <b>\$4,000.00</b> | <b>\$3,292.00</b> |                    |
| <b>Ending Fund Balance</b>    |                 |                                |                   |                   | <b>\$16,386.02</b> |

# Staff Report



Yucaipa Valley Water District

## Recycled Water into Tap Seen as New Water Frontier in Southern California

BY TRIBUNE NEWS SERVICE | JANUARY 26, 2016



Photo courtesy of [Flickr/Eric Norris](#).

*By Jim Steinberg, San Bernardino County Sun, Calif.*

Water providers are feeling the squeeze.

The drought, rising populations, and environmental concerns are pushing agencies to move toward what, for most, was unthinkable decades before: pushing sewer water into the tap.

While health officials in California, and elsewhere, work out the details, water consortiums are moving on the process to make this new tap water source a reality.

For decades, Metropolitan Water District of Southern California, thought it had a drought proof diverse portfolio of water sources, Jeff Kightlinger, general manager of the nation's largest water wholesaler, said Monday at an international water conference.

Up until the most recent drought, "we thought we were pretty immune to drought," Kightlinger said during the Denver-based American Water Works Association's conference on potable reuse.

The Metropolitan Water District of Southern California is a cooperative of 26 cities and water agencies serving 19 million people in parts of Los Angeles, San Bernardino, Riverside, Orange and San Diego counties.

Late last year MWDSC announced it was in discussions to begin planning for a giant plant that would likely be the world's largest in a "toilet to tap," or direct recycling water reuse project.

The Southern California area has long had smaller facilities that take recycled water and use that to recharge aquifers. Later that water, along with groundwater, is drawn for the tap, said Tama Snow, a professional engineer with the consulting firm of Hazen and Sawyer in Irvine.

A large plant in San Diego County to use recycled water either as a nearly direct feed or in very diffused form, is in the planning phase, Michael J. Adelman, an environmental engineer with MWH in Pasadena, said in an interview.



During the 1977 drought, MWD compensated for loss of northern California water by ramping up its draw of Colorado River water, Kightlinger said.

“That lulled us into a false sense of security that we could manage a drought,” Kightlinger said.

But with the growth of population in California and other states using the Colorado, and the severity of the current drought, have shown the pillars of security are not a sure bet, he said.

Although conservation efforts have produced significant gains, a new water source is needed. And one place for that extra water is from direct use of recycled water, Kightlinger said.

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# Discussion Items



Yucaipa Valley Water District



**Date:** February 3, 2016

**Prepared By:** Joseph Zoba, General Manager  
John Hull, Public Works Manager

**Subject:** Demolition of the Building, Basement and Foundation at 35192 Cedar Avenue, Yucaipa (Assessor Parcel Number 0303-232-17)

**Recommendation:** That the Board of Directors approves a contract with Dustin Smith Equipment, DSE Grading and Demo for a sum not to exceed \$19,900.

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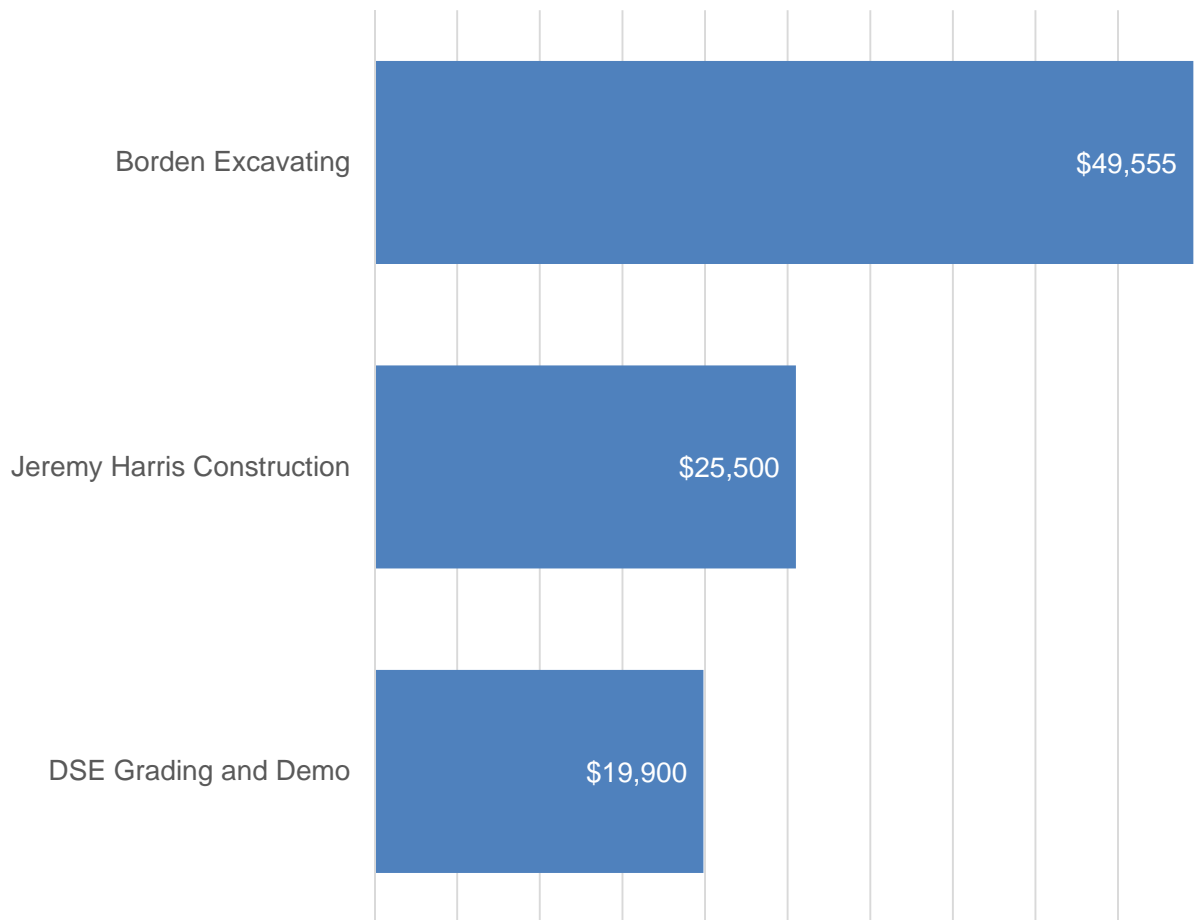
At the board workshop held on May 27, 2014, the District staff discussed the need to demolish the existing building at 35192 Cedar Avenue. With concurrence from the Board of Directors, the District staff proceeded to move the documents stored and this facility, remove the windows, and physically disconnect all utilities (water, sewer, electrical, phone and gas services). At the board meeting on June 17, 2015, the Board of Directors authorized District staff to proceed with the demolition of the structures on the property.



The District staff has completed the Request for Proposals (RFP) to demolish the structure on the property. The well site located to the north of the building will remain as a monitoring well, to be surrounded by a 6' tubular steel fence. This well site is important to meet our groundwater monitoring and management obligations pursuant to the recently enacted Sustainable Groundwater Management Act (<http://groundwater.ca.gov/>).

The District received three bids for the demolition of the structures at this site:

- Dustin Smith Equipment as DSE Grading and Demo - \$19,900
- Jeremy Harris Construction - \$25,500
- Borden Excavating - \$49,555



Funds for this project will be allocated from Water Division, Depreciation Reserves, 02-10310.

Yucaipa Valley Water District  
Demolition of Structures at 35192 Cedar Avenue, Yucaipa

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The undersigned bidder hereby proposes to furnish all labor, materials, equipment, tools, methods, and services necessary to perform all work proposed herein and the undersigned also acknowledges that all bid prices include sales tax and all other applicable taxes and fees, including any amounts payable by the District for taxes which may result from this proposal.

Said bidder fully understands the scope of the work and has checked carefully all words and figures inserted in the Bid and he/she further understands that the Owner will in no way be responsible for any errors or omissions in the preparation of this Bid.

The undersigned is licensed in accordance with the Laws of the State of California:

License: CORP Number: 893161 Class: A

Said bidder further agrees to complete all work required under the contract within the time stipulated in the Contract Completion Schedule set forth below, and to accept in full payment therefore the price as follows:

**Demolition of Structures Located at 35192 Cedar Avenue, Yucaipa**

Total Bid in Figures: \$ 19,900.<sup>00</sup>

Total Bid in Words: NINETEEN THOUSAND NINE HUNDRED -

The Contract Work shall be complete within 20 working days after date of Notice to Proceed.

Dated: 1/19/2016

MARK KOPPELHNER - PROJECT ESTIMATOR  
(Bidder - Print Name / Title)

  
(Signature)

Contractor Name: DUSTIN SMITH EQUIPMENT, INC.

Address: 22421 BARTON RD # 508

Contact Name: MARK KOPPELHNER

Contact Phone: 951 679-719

Contact Email: MARK.EDSE@EEDING.COM

Yucaipa Valley Water District  
Demolition of Structures at 35192 Cedar Avenue, Yucaipa

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The undersigned bidder hereby proposes to furnish all labor, materials, equipment, tools, methods, and services necessary to perform all work proposed herein and the undersigned also acknowledges that all bid prices include sales tax and all other applicable taxes and fees, including any amounts payable by the District for taxes which may result from this proposal.

Said bidder fully understands the scope of the work and has checked carefully all words and figures inserted in the Bid and he/she further understands that the Owner will in no way be responsible for any errors or omissions in the preparation of this Bid.

The undersigned is licensed in accordance with the Laws of the State of California:

License: CSLB Number: 924979 Class: A

Said bidder further agrees to complete all work required under the contract within the time stipulated in the Contract Completion Schedule set forth below, and to accept in full payment therefore the price as follows:

### Demolition of Structures Located at 35192 Cedar Avenue, Yucaipa

Total Bid in Figures: \$ 25,500.00

Total Bid in Words: Twenty Five Thousand, Five Hundred Dollars

The Contract Work shall be complete within 20 working days after date of Notice to Proceed.

Dated: 1-19-2016

Jeremy Harris / President  
(Bidder - Print Name / Title)

*Jeremy Harris*  
(Signature)

Contractor Name: Jeremy Harris Construction, Inc.

Address: 19466 Lurin Avenue; Riverside, CA 92508

Contact Name: Jeremy Harris

Contact Phone: 909-234-8264

Contact Email: info@jhcinc.net

**RECEIVED**  
**JAN 20 2016**  
**YUCAIPA VALLEY**  
**WATER DISTRICT**

Yucaipa Valley Water District  
 Demolition of Structures at 35192 Cedar Avenue, Yucaipa

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The undersigned bidder hereby proposes to furnish all labor, materials, equipment, tools, methods, and services necessary to perform all work proposed herein and the undersigned also acknowledges that all bid prices include sales tax and all other applicable taxes and fees, including any amounts payable by the District for taxes which may result from this proposal.

Said bidder fully understands the scope of the work and has checked carefully all words and figures inserted in the Bid and he/she further understands that the Owner will in no way be responsible for any errors or omissions in the preparation of this Bid.

The undersigned is licensed in accordance with the Laws of the State of California:

License: General Number: 741879 Class: A

Said bidder further agrees to complete all work required under the contract within the time stipulated in the Contract Completion Schedule set forth below, and to accept in full payment therefore the price as follows:

### **Demolition of Structures Located at 35192 Cedar Avenue, Yucaipa**

Total Bid in Figures: \$ 49,555.00

Total Bid in Words: Fourty Nine Thousand Five Hundred Fifty Five Dollars and No Cents

The Contract Work shall be complete within 20 working days after date of Notice to Proceed.

Dated: 1/12/2016 Borden Excavating, Inc. Shaun Borden / President  
 (Bidder - Print Name / Title)

  
 (Signature)

Contractor Name: Borden Excavating, Inc.

Address: 1014 Second Street Calimesa, CA. 92320

Contact Name: Shaun Borden

Contact Phone: 951-543-5856

Contact Email: Shaun@BEI.bid



## Director Memorandum 16-013

**Date:** February 3, 2016

**Prepared By:** Joseph Zoba, General Manager

**Subject:** Consideration of a Master Recycled Water Agreement between Yucaipa Valley Water District and Western Heights Mutual Water Company

**Recommendation:** That the Board of Directors approves the Agreement Concerning Recycled Water as presented.

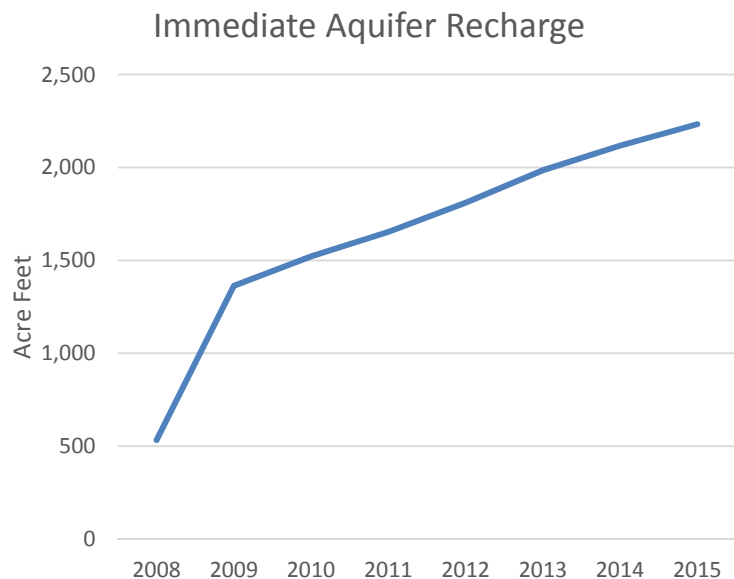
The Yucaipa Valley Water District and the Western Heights Mutual Water Company have been working together to manage our limited local water resources with the development of the following two specific programs.

### Immediate Aquifer Recharge (In Lieu Recharge)

The Yucaipa Valley Water District and the Western Heights Mutual Water Company have recognized the value in using imported water resources as a method to immediately replenish our groundwater basins with the use of Immediate Aquifer Recharge, commonly referred to as in-lieu recharge. By resting the production from local groundwater sources and instead using highly treated surface water supplies from the State Water Project and the Yucaipa Valley Regional Water Filtration Facility, the local drinking water supplies in the ground are able to be saved for future use. The use of the Immediate Aquifer Recharge technique protects water quality and uses existing infrastructure instead of constructing groundwater recharge facilities which are typically land intensive and do not generally function well based on the geology of the Yucaipa Valley.

Since 2008, the Western Heights Mutual Water Company has purchased and reduced pumping in their service area by 2,233 acre feet. This was accomplished by purchasing drinking water from the Yucaipa Valley Water District.

While the Western Heights Mutual Water Company does not own capacity in the District's treatment or conveyance facilities, the Western Heights Mutual Water Company is able to use excess treatment, reservoir and pipeline capacity until it is needed for an expanded customer base in the District's service area.





## Recycled Water Use

In June 2009, the Yucaipa Valley Water District and the Western Heights Mutual Water Company entered into a cooperative agreement (attached) to provide recycled water to the 13<sup>th</sup> Street Sports Park. While the park has been under development by the City of Yucaipa for the past several years, the recent completion of the sports facility and the agreement between the two water agencies will ensure that drinking water sources are not used for irrigation purposes at this park.



## Master Recycled Water Agreement

The Yucaipa Valley Water District and the Western Heights Mutual Water Company have now completed a new recycled water agreement that will provide recycled water to portions of our community that have been largely dependent on groundwater resources to meet irrigation needs.

While the attached agreement specifically identifies the Yucaipa High School as a recycled water user, the agreement will serve as a master agreement to be expanded with the use of future amendments to this master agreement. The first amendment will likely be used for the baseball field at the high school which is property owned by the City of Yucaipa.

06/16/09

**AGREEMENT AUTHORIZING  
YUCAIPA VALLEY WATER DISTRICT  
TO PROVIDE WATER SERVICE WITHIN  
WESTERN HEIGHTS WATER COMPANY'S  
SERVICE TERRITORY FOR THE 13<sup>TH</sup> STREET SPORTS PARK**

This Agreement is made and effective this 19<sup>th</sup> day of June, 2009, by and between the CITY OF YUCAIPA, a public agency ("City"), the YUCAIPA VALLEY WATER DISTRICT, a public agency ("District") and WESTERN HEIGHTS WATER COMPANY, a mutual water company ("Water Company"). Each is sometimes referred to herein as a "Party" and collectively as the "Parties".

1. District's Authority to Provide Water Service in Water Company's Service Territory. The Water Company hereby authorizes the District to serve potable and non-potable water to the City for use at the City's 13<sup>th</sup> Street Sports Park and the City's existing adjacent medians on Yucaipa Boulevard. Such water service shall be provided to the City directly and shall not be provided through Water Company.
2. District's and Water Company's Billings to City. The City shall become a customer of the District and the District shall bill the City directly for such water service, including, without limitation, any connection, capacity, or metering rates, fees or charges. No portion of the District's rates, fees or charges levied on the City shall be shared with the Water Company.

The Water Company shall levy a separate annual fee, based on the size of the District water meter, directly to the City for the basic Water Company semi-monthly fee charged to other Water Company customers for each City water service connection within the boundary of the Water Company. Additionally, the Water Company requires the City to maintain an active share of stock and to pay an annual facility fee (amount determined by the Water Company Board each year and charged to all Water Company customers) for each City-District water service connection within the Water Company service area pursuant to this Agreement.

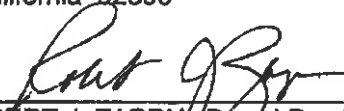
3. District's Design Requirements for Water Service. The water service provided to the City shall be in accordance with the District's design requirements. The District assumes complete responsibility for the provision of service. The District is responsible for operation and maintenance of the District's facilities used to provide potable and non-potable water service to the City. The District shall comply with regulatory requirements in the provision of such water service.
4. Termination of Service. If the City fails to pay the Water Company's annual facility fee or other fees and charges assessed by the Water Company or the City fails to pay the rates, fees and charges levied by the District for such water service, the District will terminate service in accordance with the District's rules and regulations.
5. Notices. Notices under this Agreement shall be addressed to the General Manager of the Party receiving such notice and mailed or faxed to that Party's official principal office address of record.
6. Amendment and Assignment. This Agreement may only be amended or assigned by a written amendment or assignment signed by all Parties.

- 7. No Agency or Partnership; No Third Party Beneficiaries. This Agreement is not intended to create, and nothing herein contained shall be construed to create, an association, a joint venture, a partnership, an agency or any other entity of any kind, and no Party is intended to be the agent, employee, joint venturer, associate or partner of the other. This Agreement is only for the benefit of the Parties to this Agreement, and their successors and assigns. No other person or entity shall be entitled to rely on any matter set forth in this Agreement.
- 8. Indemnification. Each Party shall indemnify and defend the other Parties from any claims, lawsuits, damages, fines, penalties, attorneys' fees and litigation costs arising from the negligence, recklessness or willful misconduct of the indemnifying Party arising out of, related to, or in the performance of this Agreement.
- 9. Dispute Resolution. All disputes relating to this Agreement shall first be submitted to non-binding mediation.
- 10. Warranty of Authority. The Parties and the individuals signing this Agreement hereby warrant and represent that the governing boards of the respective Parties have approved this Agreement and authorized its execution.

CITY OF YUCAIPA  
 34272 Yucaipa Boulevard  
 Yucaipa, California 92399

By   
 \_\_\_\_\_  
 DICK RIDDELL, Mayor

WESTERN HEIGHTS WATER COMPANY  
 32352 Avenue D  
 Yucaipa, California 92399

By   
 \_\_\_\_\_  
 ROBERT J. ZAPPIA, Board President

YUCAIPA VALLEY WATER DISTRICT  
 12770 Second Street  
 Yucaipa, California 92399

By   
 \_\_\_\_\_  
 JAY BOGN, Board President

## AGREEMENT CONCERNING RECYCLED WATER SERVICE

As of \_\_\_\_\_, 2015, the YUCAIPA VALLEY WATER DISTRICT, a public agency ("District"), and WESTERN HEIGHTS WATER COMPANY, a mutual water company ("Water Company"), agree as follows:

1. Purpose. This agreement sets forth the terms under which the District may serve recycled water within Water Company's service area. This agreement does not authorize District to serve potable water within the Water Company's service area.
2. Service Territory. District may serve recycled water to parcels within the Water Company's service area (Exhibit A) as specifically depicted on the map attached as Exhibit B.
3. Customer Charges by Water Company. Water Company will continue to levy its usual and customary fees and charges against the subject parcel pursuant to the rules, regulations, and bylaws of the Water Company. Fees and charges may include volumetric charges imposed on recycled water customers by the Water Company. These charges are intended to offset the loss of revenue incurred by the Water Company as the result of recycled water sales. Such fees and charges shall be billed to the Water Company's customers directly by the Water Company. The District shall have no obligation to bill the Water Company's customers for such fees and charges.
4. District Responsibility and District's Charges to Water Company's Customers.

The District shall:

- (a) Bill the Water Company's customers directly for recycled water service, including, without limitation, connection, capacity, or metering rates, fees, or

charges pursuant to the rules and regulations established by the Board of Directors of the Yucaipa Valley Water District. Payment of such bills by the Water Company's customers shall be made directly to the District;

(b) Allow the Water Company to read the District's recycled water meter totalizer(s) at any time to determine the volume of recycled water delivered to recycled water customers within the Water Company's service territory;

(c) Cooperate with Water Company's cross-connection control program.

5. Notices. Notices under this agreement shall be addressed to the General Manager of the Party receiving such notice and mailed or faxed to that Party's official principal office address of record.
6. Amendment. This Agreement may only be amended by a written amendment approved by the Parties. The Parties anticipate that parcels receiving recycled water in the future will be identified and approved as amendments to this Agreement and this agreement does not obligate a party to approve service to additional parcels.
7. No Agency or Partnership; No Third Party Beneficiaries. This Agreement is not intended to create, and nothing herein contained shall be construed to create, an association, a joint venture, a partnership, an agency or any other entity of any kind, and no Party is intended to be the agent, employee, joint venturer, associate, or partner of the other. This Agreement is only for the benefit of the Parties to this Agreement, and their successors and assigns. No other person or entity shall be entitled to rely on any matter set forth in this Agreement.
8. Indemnification. Each Party shall indemnify and defend the other Parties from any claims, lawsuits, damages, fines, penalties, attorneys' fees, and litigation costs arising from the negligence, recklessness, or willful misconduct of the

indemnifying Party arising out of, related, or in the performance of this Agreement.

- 9. Dispute Resolution. All disputes relating to this Agreement shall first be submitted to non-binding mediation.
  
- 10. Warranty of Authority. The Parties and the individuals signing this Agreement hereby warrant and represent that the governing boards of the respective Parties have approved this Agreement and authorized its execution.

WESTERN HEIGHTS WATER COMPANY  
32352 Avenue D  
Yucaipa, California 92399

By:   
Dr. Robert J. Zappia, Board President

YUCAIPA VALLEY WATER DISTRICT  
12770 Second Street  
Yucaipa, California 92399

By: \_\_\_\_\_  
Lonni Granlund, Board President

Exhibit A

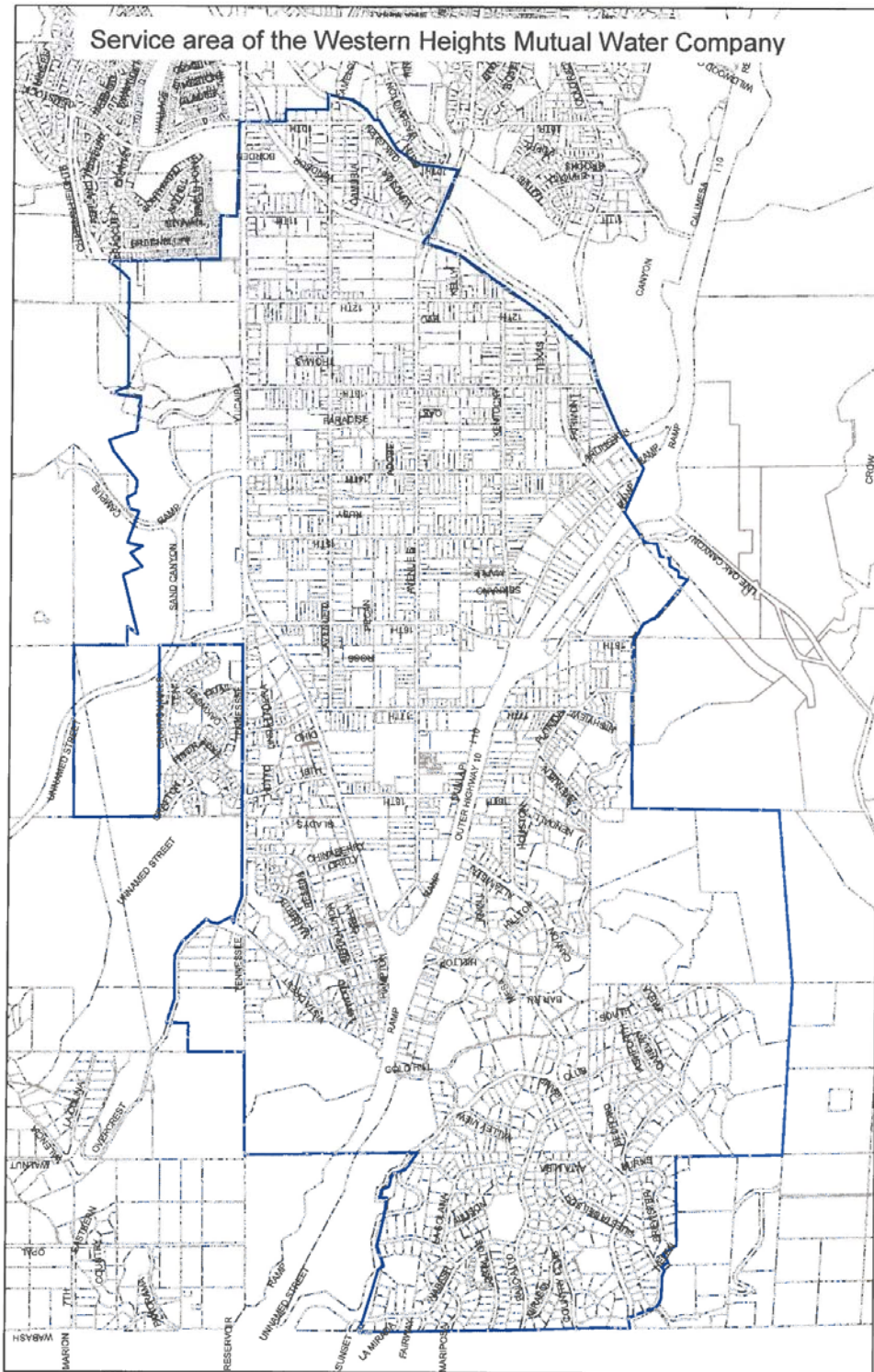


Exhibit B







**Date:** February 3, 2016

**Prepared By:** Joseph Zoba, General Manager

**Subject:** Consideration of Resolution No. 2016-08 Supporting the Application for a Water and Energy Efficiency Grant from the Department of Interior, Bureau of Reclamation

**Recommendation:** That the Board adopts Resolution No. 2016-08 as presented.

The Yucaipa Valley Water District staff has completed a grant application through the United States, Department of Interior, Bureau of Reclamation for a water conservation grant associated with the installation of Skydrop irrigation controllers in our community. The grant may provide up to \$300,000 which will need to be matched with a contribution of \$300,000 from the District for a total project cost of \$600,000.

## RECLAMATION

*Managing Water in the West*

Funding Opportunity Announcement No. R16-FOA-DO-004

### WaterSMART: Water and Energy Efficiency Grants for FY 2016



U.S. Department of the Interior  
Bureau of Reclamation  
Policy and Administration  
Denver, Colorado

November 2015

**RESOLUTION NO. 2016-08****RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
YUCAIPA VALLEY WATER DISTRICT SUPPORTING THE APPLICATION  
FOR A WATER AND ENERGY EFFICIENCY GRANT FROM THE BUREAU OF  
RECLAMATION AND COMMITTING THE DISTRICT TO THE FINANCIAL AND LEGAL  
OBLIGATIONS ASSOCIATED WITH THE RECEIPT OF THE WATERSMART GRANT  
FINANCIAL ASSISTANCE REQUIREMENTS**

WHEREAS, the Yucaipa Valley Water District (the "District") is a public agency of the State of California organized and existing pursuant to the provisions of the County Water District Law of this State (Section 30000, et seq. of the Water Code); and

WHEREAS, the mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American people; and

WHEREAS, the Bureau of Reclamation has announced Funding Opportunity Announcement No. R16-FOA-DO-004 seeking projects that save water, improve energy efficiency, address endangered species and facilitate transfers to new uses; and

NOW, THEREFORE, the Board of Directors of the Yucaipa Valley Water District hereby RESOLVE, DETERMINE, and ORDER as follows:

1. That the Board of Directors delegates legal authority to the General Manager to enter into a cooperative agreement with the Department of Interior, Bureau of Reclamation for the WaterSMART: Water and Energy Efficiency Grant for Fiscal Year 2016.
2. That the Board of Directors hereby authorizes and supports the participation and submittal by the Yucaipa Valley Water District of the grant funding application.
3. That the Board of Directors supports and the Yucaipa Valley Water District maintains the capability to provide funding and/or in-kind contributions as specified in the grant funding application.
4. That the Board of Directors hereby directs the General Manager to work with the Bureau of Reclamation to meet the established deadlines for entering into a cooperative agreement.

PASSED, APPROVED and ADOPTED this 3<sup>rd</sup> day of February 2016.

YUCAIPA VALLEY WATER DISTRICT

ATTEST:

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Lonni Granlund, President Board of Directors

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Joseph B. Zoba, General Manager



**Date:** February 3, 2016

**Prepared By:** Joseph Zoba, General Manager

**Subject:** Consideration of Resolution No. 2016-09 Supporting the Application for a Lower Colorado Region, Water Conservation Field Services Grant for Fiscal Year 2016 from the Department of Interior, Bureau of Reclamation

**Recommendation:** That the Board adopts Resolution No. 2016-09 as presented.

The Yucaipa Valley Water District staff has completed a grant application through the United States, Department of Interior, Bureau of Reclamation for a water conservation grant associated with the installation of Skydrop irrigation controllers in our community. The grant may provide up to \$100,000 which will need to be matched with a contribution of \$100,000 from the District for a total project cost of \$200,000.

# RECLAMATION

*Managing Water in the West*

Funding Opportunity Announcement No. BOR-LC-16-001

**Lower Colorado Region  
Water Conservation Field Services  
Program  
Grant Program for FY 2016**



U. S. Department of the Interior  
Bureau of Reclamation  
Lower Colorado Region

November 2015

**RESOLUTION NO. 2016-09****RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
YUCAIPA VALLEY WATER DISTRICT SUPPORTING THE APPLICATION  
FOR A LOWER COLORADO REGION WATER CONSERVATION FIELD SERVICES  
PROGRAM GRANT FOR FISCAL YEAR 2016 AND COMMITTING THE DISTRICT TO THE  
FINANCIAL AND LEGAL OBLIGATIONS ASSOCIATED WITH THE RECEIPT OF THE  
WATERSMART GRANT FINANCIAL ASSISTANCE REQUIREMENTS**

WHEREAS, the Yucaipa Valley Water District (the "District") is a public agency of the State of California organized and existing pursuant to the provisions of the County Water District Law of this State (Section 30000, et seq. of the Water Code); and

WHEREAS, the mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American people; and

WHEREAS, the Bureau of Reclamation has announced Funding Opportunity Announcement No. BOR-LC-16-001 seeking projects that save water, improve energy efficiency, address endangered species and facilitate transfers to new uses; and

NOW, THEREFORE, the Board of Directors of the Yucaipa Valley Water District hereby RESOLVE, DETERMINE, and ORDER as follows:

1. That the Board of Directors delegates legal authority to the General Manager to enter into a cooperative agreement with the Department of Interior, Bureau of Reclamation for the Lower Colorado Region Water Conservation Field Services Program Grant for Fiscal Year 2016.
2. That the Board of Directors hereby authorizes and supports the participation and submittal by the Yucaipa Valley Water District of the grant funding application.
3. That the Board of Directors supports and the Yucaipa Valley Water District maintains the capability to provide funding and/or in-kind contributions as specified in the grant funding application.
4. That the Board of Directors hereby directs the General Manager to work with the Bureau of Reclamation to meet the established deadlines for entering into a cooperative agreement.

PASSED, APPROVED and ADOPTED this 3<sup>rd</sup> day of February 2016.

YUCAIPA VALLEY WATER DISTRICT

ATTEST:

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Lonni Granlund, President Board of Directors

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Joseph B. Zoba, General Manager

# 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

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