



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, November 4, 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 - October 21, 2015
 - 2. Board Workshop - October 27, 2015
- V. **BOARD REPORTS**
 - A. San Gorgonio Pass Regional Water Alliance - Technical Committee Meeting - October 28, 2015
 - B. San Gorgonio Pass Regional Water Alliance - Regular Meeting - October 28, 2015
 - C. Recycled Water Fill Station Training Session - October 29, 2015
 - D. Community Water Meeting - October 29, 2015
 - E. San Gorgonio Pass Water Agency Meeting - November 2, 2015
 - F. Reports by Board Members
- VI. **STAFF REPORT**

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

VII. DISCUSSION ITEMS

- A. Authorization to Install Groundwater Observation Wells near San Timoteo Creek [[Director Memorandum No. 15-098 - Page 22 of 109](#)]
RECOMMENDED ACTION: That the Board authorizes the District staff to execute the attached Authorization to Proceed with Dudek for a sum not to exceed \$59,747.
- B. Authorization to Award a Contract for Annual Water Storage Reservoir Cleaning and Inspection Services [[Director Memorandum No. 15-099 - Page 31 of 109](#)]
RECOMMENDED ACTION: That the Board awards a contract to Workhorse Diving and Salvage for a sum not to exceed \$40,850.
- C. Authorization to Execute Amendment No. 14 with ADS Environmental Services for the Installation of Three ADS Triton+ Sewer Collection System Flow Monitors [[Director Memorandum No. 15-100 - Page 36 of 109](#)]
RECOMMENDED ACTION: That the Board approves Amendment No. 14 as presented.
- D. Authorization to Procure, Install and Activate Nine (9) SmartCover Systems to Expand the Sewer Collection System and Sewer Lift Stations Monitoring Network [[Director Memorandum No. 15-101 - Page 47 of 109](#)]
RECOMMENDED ACTION: That the Board authorizes the District staff to execute the attached quotation from SmartCover Systems.
- E. Authorization to Install a Fuel Automation System for the District Fleet of Vehicles and Construction Equipment [[Director Memorandum No. 15-102 - Page 67 of 109](#)]
RECOMMENDED ACTION: That the Board authorizes the District staff to execute Quotation No. 15-3156s-R1 for a sum not to exceed \$33,312.96 and Quotation No. 15-3171s for a sum not to exceed \$11,998.36.
- F. Change Order No. 1 and Notice of Completion for the Construction Contract with Borden Excavating, Inc. for the Cedar Avenue, Adams Street, Adams Court and Comberton Street Replacement Pipelines [[Director Memorandum No. 15-103 - Page 75 of 109](#)]
RECOMMENDED ACTION: That the Board approves Change Order No. 1 and authorizes the filing of the Notice of Completion and release of the retention amount of \$20,212.50 thirty-five days after the recorded date.
- G. Discussion Regarding Fines Assessed by the State Water Resources Control Board Pursuant to the Emergency Water Conservation Regulations [[Director Memorandum No. 15-103 - Page 85 of 109](#)]
RECOMMENDED ACTION: Pending

VIII. DIRECTORS COMMENTS

IX. ANNOUNCEMENTS

- A. November 10, 2015 at 4:00 p.m. - Board Workshop
- B. November 18, 2015 at 6:00 p.m. - Regular Board Meeting
- C. November 24, 2015 at 4:00 p.m. - Board Workshop
- D. December 2, 2015 at 6:00 p.m. - Regular Board Meeting
- E. December 8, 2015 at 4:00 p.m. - Board Workshop
- F. December 16, 2015 at 6:00 p.m. - Regular Board Meeting

X. CLOSED SESSION

- A. Conference with Real Property Negotiator(s)
Property: Assessor's Parcel Numbers: 0301-211-020 and 0301-201-030
Agency Negotiator: Joseph Zoba, General Manager
Negotiating Parties: Mesa Verde Ventures LLC c/o Betek Corporation
Under Negotiation: Terms of Payment and Price

XI. ADJOURNMENT

Consent Calendar



Yucaipa Valley Water District

MINUTES OF A REGULAR BOARD MEETING

October 21, 2015 at 6:00 P.M.

Directors Present:

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

Staff Present:

Joseph Zoba, General Manager
Jack Nelson, Assistant General Manager
Vicky Elisalda, Controller
John Hull, Public Works Manager
Jennifer Ares, Water Resource Manager
John Wrobel, Regulatory & Environmental Control
Manager

Directors Absent:

Bruce Granlund, Director

Consulting Staff Present:

David Wysocki, Legal Counsel

Registered Guests and Others Present:

Karen DaSilva, News Mirror
David Duron, Customer
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 Lonni Granlund led the pledge of allegiance.

FLAG SALUTE

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

ROLL CALL

There were no public comments.

PUBLIC COMMENTS

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 - October 7, 2015
2. Board Workshop - October 13, 2015

B. Payment of Bills

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

The motion was approved by the following vote:

Director Jay Bogh - Yes
Director Bruce Granlund - Absent

Director Lonni Granlund - Yes
Director Ken Munoz - Yes
Director Tom Shalhoub - Yes

Reports by Board Members

- Director Lonni Granlund reported on the San Gorgonio Pass Water Agency, Engineering Workshop meeting held on October 12, 2015.
- Director Lonni Granlund reported on Recycled Water Fill Station Training Session for Residential Customers held on October 15, 2015.
- Director Lonni Granlund reported on the South Mesa Mutual Water Company meeting.
- Director Lonni Granlund reported on the Association of San Bernardino County Special Districts meeting held on October 19, 2015.
- Director Ken Munoz reported on the Mueller factory tour in Chattanooga, Tennessee on October 19, 2015.
- Director Tom Shalhoub reported on the San Gorgonio Pass Water Agency meeting held on October 19, 2015.
- Director Tom Shalhoub reported on the City of Calimesa meeting held on October 19, 2015.
- Director Tom Shalhoub reported on the San Bernardino Valley Municipal Water District meeting held on October 20, 2015.

BOARD REPORTS

General Manager Joseph Zoba discussed the following items:

- The District attended a meeting with other local water retailers and the San Bernardino Valley Municipal Water District regarding the Bunker Hill Basin Conjunctive Use Project.
- 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 October 29th at 5:00 p.m.
- The next community water meeting will be held on October 29th at 6:00 p.m.

STAFF REPORT

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

The motion was approved by the following vote:

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

DISCUSSION ITEMS:

DM 15-092
UNAUDITED
FINANCIAL REPORT
FOR THE PERIOD
ENDING ON
SEPTEMBER 30, 2015

Following a staff presentation by Regulatory & Environmental Control Manager John Wrobel, Director Tom Shalhoub moved and Director Ken Munoz seconded a motion to approve Permit No. CP-001-03 and authorizes District staff to issue the pretreatment permit.

The motion was approved by the following vote:

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

DM 15-093
ISSUANCE OF A
CLASS I SIGNIFICANT
INDUSTRIAL USER
DISCHARGE PERMIT
TO SORENSON
ENGINEERING, INC. -
PERMIT NO.
CP-001-03

Following a staff presentation by Assistant General Manager Jack Nelson, Director Jay Bogh moved and Director Tom Shalhoub seconded a motion to approve a contract with Edgewood Partners Insurance Center (EPIC) for Furnishing Workers' Compensation Insurance for 2015-2016.

The motion was approved by the following vote:

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

DM 15-094
RENEWAL OF
WORKERS'
COMPENSATION
INSURANCE POLICY
FOR FISCAL YEAR
2016

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 finalize and solicit proposals for the demolition of the building, basement and other structures on the subject property.

The motion was approved by the following vote:

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

DM 15-095
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)

Following a staff presentation by General Manager Joseph Zoba, Director Ken Munoz moved and Director Jay Bogh seconded a motion to authorize District staff to finalize and solicit proposals for emergency repair services.

The motion was approved by the following vote:

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

DM 15-096
AUTHORIZATION TO
FINALIZE AND ISSUE
A REQUEST FOR
PROPOSALS
RELATED TO ON-CALL
EMERGENCY WATER
AND SEWER PIPELINE
REPAIR AND
EMERGENCY
RESPONSE SERVICES

Following a staff presentation by General Manager Joseph Zoba, Director Tom Shalhoub moved and Director Ken Munoz seconded a motion to adopt Resolution No. 2015-19 supporting an investigation and evaluation of a regional recycled water seasonal storage reservoir.

The motion was approved by the following vote:

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

Director Tom Shalhoub provided information about the planned Veterans Day activities on November 11, 2015.

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

The meeting was adjourned at 6:50 p.m.

Respectfully submitted,

Joseph B. Zoba, Secretary

DM 15-097
ADOPTION OF
RESOLUTION NO.
2015-19 SUPPORTING
THE INVESTIGATION
AND EVALUATION OF
A REGIONAL
RECYCLED WATER
SEASONAL STORAGE
FACILITY

DIRECTOR
COMMENTS

ANNOUNCEMENTS

ADJOURNMENT

(Seal)

Workshop Minutes to be Provided Prior to the Board Meeting

Board Reports



Yucaipa Valley Water District



Technical Committee Meeting

Wednesday, October 28, 2015 at 4:30 p.m.

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

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, January 27, 2015 at 4:30 pm**
6. Adjournment



Notice and Agenda of a Regular Meeting Wednesday, October 28, 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 - September 23, 2015
4. Presentations
 - a. Overview of Funding Opportunities for Member Agencies - Haid Kartounian
 - b. Member Agency Profile: Cabazon 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 January 2015 - City of Calimesa
 - b. Other Meeting Topics
8. Comments by Alliance Members
9. Announcements
 - a. Next Meeting Date: **Wednesday, January 27, 2015 at 6:00 pm**
10. Adjournment



Yucaipa Valley Water District

Notice of a Recycled Water Fill Station Training Session for Residential Customers

The Yucaipa Valley Water District is in the process of developing a recycled water filling station so customers can pick up recycled water for their home landscaping needs. While the District is securing the necessary permits for the operation of the recycled water fill station, we are offering training courses and issuing identification cards to customers in advance of the grand opening. Please join us to learn more about the program.

Thursday, October 29, 2015, at 5:00 p.m.

Yucaipa Valley Regional Water Filtration Facility at Crystal Creek
35477 Oak Glen Road, Yucaipa 92399



For additional information, please contact the Yucaipa Valley Water District at (909) 797-5117 or by email at customer_service@yvwd.dst.ca.us.



Yucaipa Valley Water District

Notice of a Community Water Meeting

Join Us for a Conversation about the Drought and Our Water Resources

The Yucaipa Valley Water District will be hosting a community conversation to discuss the current drought and the management of our water resources. For more additional information, please contact the Yucaipa Valley Water District at (909) 797-5117.

Thursday, October 29, 2015, 6:00 p.m. to 8:00 p.m.

Yucaipa Valley Regional Water Filtration Facility at Crystal Creek
35477 Oak Glen Road, Yucaipa 92399



SAN GORGONIO PASS WATER AGENCY
1210 Beaumont Avenue, Beaumont, CA
Board of Directors Meeting
Agenda
November 2, 2015 at 1:30 p.m.

1. Call to Order, Flag Salute and Roll Call

2. Adoption and Adjustment of Agenda

3. Public Comment

Members of the public may address the Board at this time concerning items relating to any matter within the Agency's jurisdiction. To comment on specific agenda items, please complete a speaker's request form and hand it to the board secretary.

4. Consent Calendar:

If any board member requests that an item be removed from the Consent Calendar, it will be removed so that it may be acted upon separately.

- A. Approval of the Minutes of the Regular Board Meeting, October 19, 2015* (Page 3)
- B. Approval of the Minutes of the Finance and Budget Workshop, October 26, 2015* (Page 7)
- C. Approval of the Finance and Budget Workshop Report, October 26, 2015* (Page 10)

5. Reports (Discussion and Possible Action)

- A. General Manager's Report
 - 1. Operations Report
 - 2. General Agency Updates
- B. General Counsel Report
- C. Directors' Reports

6. New Business (Discussion and Possible Action)

- A. Consideration of Consulting Agreement with Roy McDonald* (Page 11)
- B. Consideration of Sponsorship of 2015 State of the County Event* (Page 23)
- C. Discussion of Agency Allocation of Water
- D. Discussion of Board Meeting Times (Requested by Director Duncan)
- E. Discussion of Reducing Board Size (Requested by Director Dickson)

7. Topics for Future Agendas

8. Announcements

- A. Engineering Workshop, November 9, 2015 at 1:30 p.m.
- B. Office closed November 11, 2015 in observance of Veterans Day.
- C. Regular Board Meeting, November 16, 2015 at 1:30 p.m.
- D. Finance and Budget Workshop, November 23, 2015 at 1:30 p.m.

9. Adjournment

***Information included in Agenda Packet**

(1) Materials related to an item on this Agenda submitted to the Board of Directors after distribution of the agenda packet are available for public inspection in the Agency's office at 1210 Beaumont Avenue, Beaumont during normal business hours. (2) Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection at the Agency's office, located at 1210 Beaumont Avenue, Beaumont, California 92223, during regular business hours. When practical, these public records will also be made available on the Agency's Internet Web site, accessible at: www.sgpwa.com (3) Any person with a disability who requires accommodation in order to participate in this meeting should telephone the Agency (951 845-2577) at least 48 hours prior to the meeting in order to make a request for a disability-related modification or accommodation.

Staff Report



Yucaipa Valley Water District

These water districts are way short of their conservation targets



Some affluent areas of L.A. County have had a difficult time conserving water. Above is Bel-Air's West Gate. (Al Seib / Los Angeles Times)



By **Matt Stevens**

OCTOBER 29, 2015, 3:00 AM

Over the last four months, the residents and businesses of the Indian Wells Valley Water District have cut their water consumption by about 25%, and General Manager Don Zdeba thinks that's "pretty darn good."

The problem for Zdeba and his Kern County customers is that the state expects the district to slash its water usage by even more — 36% as compared with 2013.

So Zdeba admits he is concerned.

"Resigned," he said, "to the fact I don't think we're going to do it."

As state regulators prepare to release monthly water conservation numbers, Zdeba and dozens of his counterparts are getting worried about the bigger picture.

Water use tends to be lower in the winter than in the summer because people use less outdoors when it rains and temperatures cool. With less water being used, there is less to cut, so officials say it will be even harder for their districts to achieve big savings.

That's bad news for laggard water suppliers that now face an almost insurmountable climb to reach their conservation targets by the end of February. Some that have already been put on notice by state regulators — such as Indian Wells Valley — could face fines if they fail to turn things around.

It will be extremely challenging for water districts to "make up for lost ground," said Max Gomberg, the climate and conservation manager for the State Water Resources Control Board. There are some, he added, that are unlikely to meet their state-mandated targets.

In order to attain the 25% reduction in urban water use ordered by Gov. Jerry Brown, the water board assigned conservation standards to each of the state's 411 urban suppliers earlier this year.

Suppliers with a history of high per-capita water use were ordered to cut as much as 36% off 2013 totals. Suppliers with a history of lower consumption were told to cut as little as 8% or, in rare cases, even 4%.

Statewide, Californians have managed to eclipse Brown's savings goal each month since the regulations took effect in June. Regulators are expected to announce that the state succeeded again in September when they release the latest numbers Friday.

But some individual water districts have struggled mightily to meet their targets. In August, for example, six suppliers missed their mark by more than 15 percentage points. An additional 54 suppliers were off by between five and 15 percentage points.

Regulators met over the summer with some struggling districts and later issued conservation orders to eight of them. The orders demand that the districts take specific steps to save more water.

About 100 suppliers have received so-called information orders requiring them to send more information about the conservation measures they have undertaken, Gomberg said.

Redlands received an information order in August, spokesman Carl Baker said. That same month, the city hired two part-time water waste investigators and reached out to the 10% of its customers who used the most water.

Officials say those efforts helped nudge up the city's savings from 22% in August to 30% in September. But that's still short of the 36% target the state requires them to reach.

"This is a really aggressive goal," Baker said. "If the state has other things we haven't tried that we weren't aware of, we'd be open to that."

Under the drought regulations, water districts that violate a conservation or information order can be fined up to \$500 per day. The water board can also send violators a cease-and-desist order, which carries a stiffer penalty: up to \$10,000 for each day of noncompliance.

To determine whether to issue a fine, water board regulators will consider how far off a local district is from meeting its target and other factors such as the level of effort, Gomberg said. "What steps did a supplier take to try and close the gap?"

No fines have been issued yet, Gomberg added.

In Los Angeles, residents and businesses have had little trouble meeting their 16% target. The Los Angeles Department of Water and Power saved 21.8% in September compared with the same month in 2013, a spokeswoman said. Cumulatively, the city has saved about 19% since the regulations took effect in June.

Long Beach saved 18.6% in September, surpassing its 16% target for the fourth month in a row, officials said.

But some affluent areas of the county have had a more difficult time conserving. According to the most recent state data, Malibu and Beverly Hills are cumulatively about 12 percentage points from meeting their targets.

In a statement, Beverly Hills spokeswoman Therese Kosterman said the city has put together a "comprehensive" conservation program that includes penalty surcharges, "which are just now taking effect."

"As we draw closer to the end of the year, we are naturally very concerned about not meeting the 32% goal," she added. "However, we are committed to continuing the outreach."

Mark Gold, associate vice chancellor of environment and sustainability at UCLA, said there is hope for cities and towns that have fallen behind.

Although water use does tend to drop in the winter, an El Niño year filled with rain could reduce outdoor watering even more than normal, Gold said.

"But if you're way behind," he added, "it's going to be tough to catch up."

matt.stevens@latimes.com

Twitter: [@ByMattStevens](https://twitter.com/ByMattStevens)

Times staff writer Taylor Goldenstein contributed to this report.

Discussion Items



Yucaipa Valley Water District



Date: November 4, 2015

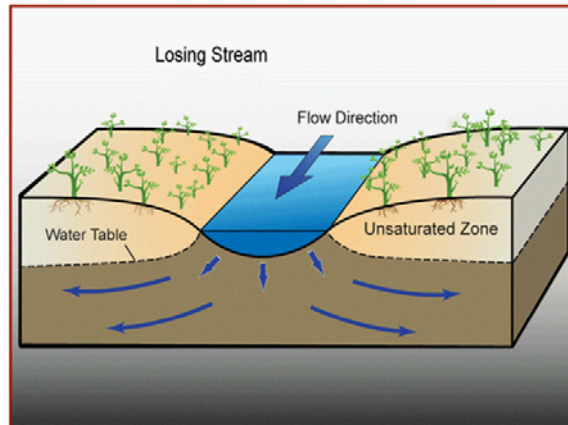
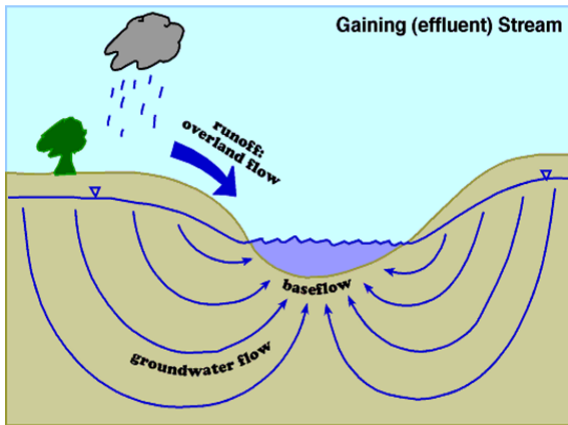
Prepared By: Jennifer Ares, Water Resource Manager

Subject: Authorization to Install Groundwater Observation Wells near San Timoteo Creek

Recommendation: That the Board authorizes the District staff to execute the attached Authorization to Proceed with Dudek for a sum not to exceed \$59,747.

As part of the Maximum Benefit Monitoring Program and the San Timoteo Habitat Monitoring Program, the Yucaipa Valley Water District is required to monitor groundwater conditions and riparian habitat in San Timoteo Creek.

In order to fully document the influences in and around San Timoteo Creek, additional monitoring wells will need to be placed adjacent to the existing wells. Paired monitoring wells provide the opportunity to determine if San Timoteo Creek is a losing or gaining stream naturally. These flow characteristics may also become a contributing factor to the health of the overall stream system.



The following proposal represents the costs to install additional monitoring wells in San Timoteo Creek.

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

September 16, 2015

3163-30

Jennifer Ares
Water Resource Manager
Yucaipa Valley Water District
12770 Second Street
Yucaipa, CA 92399

Subject: Proposed Scope of Work and Fee to Install Groundwater Observation Wells near San Timoteo Creek

Dear Ms. Ares:

Dudek is pleased to present this scope of work and fee to provide services related to the installation of up to six (6) shallow groundwater observation wells near San Timoteo Creek. The wells will be installed as paired wells at three locations: (1) near the existing observation wells OW-1T and OW-1P on California Park land. This location represents an observation point upstream of the Yucaipa Valley Regional Water Filtration Facility (YVRWFF) discharge outfall to San Timoteo Creek; (2) a location approximately 700 feet downstream of the YVRWFF outfall; and (3) near the location of the existing shallow groundwater observation well OW-3P.

The installation of these paired wells adjacent to or near San Timoteo Creek will be used to characterize the relationship between surface water flows in San Timoteo Creek and the local underlying groundwater. Each paired well location will consist of two individual well casings completed at varying depths ranging from 10 feet to 25 feet below land surface. The wells may be configured with the existing HMP wells to augment the data collection at their respective locations. Additionally, a well pair installed approximately 700 feet downgradient from the YVRWFF outfall would be advantageous in measuring surface water flows and groundwater levels just downstream from the outfall. Currently, the nearest downstream monitoring well from the outfall, OW-2P, is located approximately 12,000 feet downstream.

Each well would be instrumented with a pressure transducer to measure and record groundwater levels. The water level data will be used to evaluate whether groundwater is moving vertically up to the creek and contributes to stream flow in the creek (i.e. gaining stream), or vertically downward (i.e. losing stream) indicating that surface water is discharging to groundwater. This information, coupled with surface water flow data, can be used to evaluate the relationship between flows in the creek and the local water table on a diurnal and seasonal basis. The data may also be used to evaluate the current thresholds in the HMP and, perhaps, used to support any requests for modifications to the HMP.

Ms. Jennifer Ares

Subject: Proposed Scope of Work and Fee to Install Shallow Groundwater Observation Wells near San Timoteo Creek

The following scope of work includes tasks to inspect the potential well sites, obtain well construction permits from the Riverside County Department of Environmental Health (DEH) and the San Bernardino County Department of Environmental Health, the necessary permitting to install the wells in the San Timoteo riparian habitat corridor, oversee the drilling, construction and survey of the observation wells and provide biological monitoring, and submit well construction reports to each respective county DEH. The wells will be instrumented with pressure transducers fitted with internal dataloggers. Each transducer will be programmed to measure and record water levels on an hourly basis. These wells will be included into the monitoring program for the HMP project where water level data will be collected manually during each site visit and the transducer data downloaded.

SCOPE OF WORK

Task 1. Kick-Off Meeting and Initial Site Inspections

Dudek proposes a one-day kick-off meeting and site inspection with YVWD staff to discuss the objectives and procedures for installing the observation wells and inspect the proposed well site locations. Dudek personnel will evaluate each location for accessibility for drilling equipment and materials and for periodic visits during the HMP monitoring program, and for potential impacts to sensitive habitat during installation and monitoring operations. Steven Stuart, PE, and Kam Muri of Dudek will attend the kick-off meeting with YVWD staff and conduct the initial site inspections.

Cost for Task 1\$3,230

Task 2. Permitting

Dudek personnel will complete and submit well construction permit applications to the Riverside County Department of Environmental Health for the wells installed upstream and just downstream of the YVRWFF outfall and to the San Bernardino County Department of Environmental Health for the wells installed near the location of well OW-3P.

Additionally, Dudek will obtain authorization for the installation of the shallow groundwater observation wells under Nationwide Permit 5 for Scientific Measurement Devices, or Nationwide Permit 6 for Survey Activities, under a pre-certified Section 401 Water Quality Certification from Regional Water Quality Control Board, and a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife. This task includes a site visit by Dudek biologists to update the biological conditions at the proposed well locations. Dudek will provide YVWD with assistance for filing a Notice of Exemption for CEQA compliance.

Ms. Jennifer Ares

Subject: Proposed Scope of Work and Fee to Install Shallow Groundwater Observation Wells near San Timoteo Creek

Cost for Task 2\$16,970

Task 3. Installations of Shallow Groundwater Observation Wells

Dudek will contract the services of Pacific Drilling Co. (CA C-57 Lic# 681380) of San Diego, California to provide the drilling and well construction services. Dudek assumes up to three days of biological monitoring during construction to document compliance with permit conditions. This task assumes that the well installations will not occur during the nesting season from March 1 through September 15.

Pacific Drilling will use either a tripod drilling apparatus at proposed well sites that have dense riparian vegetation, or an all-terrain full-track drill rig. The tripod drilling apparatus and the all-terrain full-track drill rig are both designed to operate within a small footprint and minimize impacts to habitat. Each drilling apparatus is equipped to use a 6-inch diameter hollow-stem drill bit with 4-foot long auger flights down to 30 feet below ground surface (bgs). One borehole will be drilled for each well, meaning two boreholes will be drilled at each location with the deeper boring drilled to approximately 20 to 25 feet below ground surface (bgs) and the shallower boring drilled to approximately 10 feet bgs.

Emmanuel Padilla of Dudek, under the supervision of Steven Stuart, PE, will oversee the drilling and construction of all observation wells. Mr. Padilla will be the onsite geologist during the drilling phase and will characterize and log the lithology of the sediments encountered during drilling. The wells will be constructed with 2-inch diameter schedule 40 PVC casing with the bottom 5 feet perforated with 0.020-inch slots. Each well will be completed to surface and protected by a 5-foot, 5-inch diameter protective steel casing that will stand approximately 3 feet above land surface. Each well will be locked and secured.

Well development will include surging and bailing to remove material (e.g. sand) from the casing and to improve the hydraulic communication between the well and the surrounding formation. An In-Situ Rugged Troll pressure transducer will be installed at each well. Each transducer will be connected to a direct-read cable so that the transducers do not have to be moved every time to download data. The direct-read cables will connect to a laptop in the field where the data may be downloaded and the transducers reprogrammed, if necessary.

Cost for Task 3\$33,309

Task 4. Well Survey

Dudek will contract the services of Dulin and Boynton of Signal Hill, California, a state licensed surveyor, to survey the horizontal locations and vertical elevations of land surface, well casing

Ms. Jennifer Ares

Subject: Proposed Scope of Work and Fee to Install Shallow Groundwater Observation Wells near San Timoteo Creek

point of reference, and protective steel casings for the six proposed observation wells. Locations will be tied to the North American Datum of 1983 (NAD83) and elevations tied to the North American Vertical Datum of 1988 (NAVD88). Results of the survey will be included in the well completion reports and the data included in the GIS database files already created for the San Timoteo Creek area.

Cost for Task 4\$3,919

Task 5. Well Completion Reports

Dudek will submit well completion reports to the Riverside County and San Bernardino County Departments of Environmental Health for the wells constructed in their respective jurisdictions. The reports will document the drilling and construction of the shallow groundwater observation wells and include a map showing the surveyed locations of the wells, a summary of the total depth drilled at each location, and the type and amount of material used to construct the wells. Copies of each report will be provided to YVWD.

Cost for Task 5\$2,320

FEE SUMMARY

The fee presented in this proposal will be charged on a time and materials basis in accordance with Dudek’s 2015 Standard Schedule of Charges (see attached). Dudek will complete the tasks described above on a time-and-materials basis, not to exceed \$59,747.

The time and materials fee provided in this proposal represents an estimate of the anticipated level of effort required to complete the tasks described in the proposal. Should the actual effort required to complete the tasks be less than anticipated, the amount billed will be less than the total fee. Conversely, should the actual effort to complete the proposed tasks be greater than anticipated, additional fee authorizations will be requested. No work in excess of the proposed fee or outside of the proposed scope of work will be performed without written authorization from Yucaipa Valley Water District.

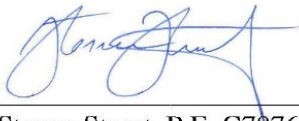
TOTAL COST.....\$59,747

Ms. Jennifer Ares

*Subject: Proposed Scope of Work and Fee to Install Shallow Groundwater Observation Wells
near San Timoteo Creek*

Please call me at (760) 479-4128 if you have any questions or require further discussion.

Sincerely,



Steven Stuart, P.E. C79764
Project Manager

*Att.: Table 1. Fee to Install Shallow Groundwater Observation Wells near San Timoteo Creek
2015 Dudek Standard Schedule of Charges*

AUTHORIZATION TO PROCEED
for
**Scope of Work for Services Provided for the Installation of Shallow Groundwater
 Observation Wells near San Timoteo Creek**

The proposed scope of work and fee presented herein is acceptable and Dudek is hereby authorized to proceed with the proposed scope of services.

Authorized by: _____
 (Signature)

 Name (typed or printed)

For: Yucaipa Valley Water District

 Date

**Table 1. Installation of Shallow Groundwater Observation Wells near San Timoteo Creek
DUDEK FEE SCHEDULE**

Project Team Role: Team Member: Billable Rate:		Env. Specialist Planner VI	Senior Engineer/PM	Hydrogeologist III	Env. Specialist Planner II	Planning Asst. II	Env. Specialist Planner III	GIS Specialist II	TOTAL HOURS	DUDEK LABOR COST	SUB- CONSULTANT COST (Pacific Drilling Co.)	SUB- CONSULTANT COST (Dulin & Boynton)	OTHER DIRECT COSTS	TOTAL FEE
		K. Muri \$190	S. Stuart, PE \$200	E. Padilla \$120	B. Strittmater \$130	A. Cassidy \$80	T. Liddicoat \$150	A. Greis \$130						
Task 1 - Initial Site Investigation and Well Inspection														
1-1	Site Investigation	8	8						16	\$ 3,120			\$ 110	\$ 3,230
Subtotal Task 1		8	8						16	\$ 3,120	\$ -	\$ -	\$ 110	\$ 3,230
Task 2 - Permitting														
2-1	Submit Permit Application to San Bernardino County DEH		1	6					7	\$ 920			\$ 280	\$ 1,200
2-2	Submit Permit Application to Riverside County DEH		1	6					7	\$ 920			\$ 450	\$ 1,370
2-3	RWQCB 401 Pre-Certified NWP Notification	8					24	4	36	\$ 5,640				\$ 5,640
2-4	CDFW 1602 Permit Application	8					24	4	36	\$ 5,640				\$ 5,640
2-5	Notice of Exemption	4							4	\$ 760				\$ 760
2-6	Bio Reconnaissance					8	8	4	20	\$ 2,360			\$ 300	\$ 2,660
Subtotal Task 2		20	2	12		8	56	12	110	\$ 16,240	\$ -	\$ -	\$ 730	\$ 16,970
Task 3 - Installations of Shallow Groundwater Observation Wells														
3-1	Drilling and Well Construction		8	46	30				84	\$ 11,020	\$ 13,832		\$ 1,530	\$ 26,382
3-2	Well Development		1	8					9	\$ 1,160			\$ 190	\$ 1,350
3-3	12-Month Rental for Six (6) In-Situ Rugged Troll Pressure Transducers			8					8	\$ 960			\$ 4,617	\$ 5,577
Subtotal Task 3			9	62	30				101	\$ 13,140	\$ 13,832	\$ -	\$ 6,337	\$ 33,309
Task 4 - Well Survey														
4-1	Survey		1	10					11	\$ 1,400		\$ 2,404	\$ 115	\$ 3,919
Subtotal Task 4			1	10					11	\$ 1,400	\$ -	\$ 2,404	\$ 115	\$ 3,919
Task 5 - Well Completion Reports to San Bernardino and Riverside Counties DEH														
5-1	Draft Well Installation Reports		2	16					18	\$ 2,320			\$ -	\$ 2,320
Subtotal Task 5			2	16					18	\$ 2,320	\$ -	\$ -	\$ -	\$ 2,320
Total Hours and Fee		28	22	100	30	8	56	12	256	\$ 36,220	\$ 13,832	\$ 2,404	\$ 7,292	\$ 59,747
<i>Percent of Hours:</i>		<i>11%</i>	<i>9%</i>	<i>39%</i>	<i>12%</i>	<i>3%</i>	<i>22%</i>	<i>5%</i>	<i>100%</i>					

1) Direct costs include well permit fees, drill cutting waste profiling and disposal, transducer costs and well location surveying

**DUDEK
2015 STANDARD SCHEDULE OF CHARGES**

ENGINEERING SERVICES

Project Director.....	\$255.00/hr
Principal Engineer III.....	\$225.00/hr
Principal Engineer II.....	\$215.00/hr
Principal Engineer I.....	\$205.00/hr
Program Manager.....	\$205.00/hr
Senior Project Manager.....	\$195.00/hr
Project Manager.....	\$190.00/hr
Senior Engineer III.....	\$185.00/hr
Senior Engineer II.....	\$175.00/hr
Senior Engineer I.....	\$165.00/hr
Project Engineer IV/Technician IV.....	\$155.00/hr
Project Engineer III/Technician III.....	\$140.00/hr
Project Engineer II/Technician II.....	\$125.00/hr
Project Engineer I/Technician I.....	\$110.00/hr
Project Coordinator.....	\$85.00/hr
Engineering Assistant.....	\$75.00/hr

ENVIRONMENTAL SERVICES

Principal.....	\$235.00/hr
Senior Project Manager/Specialist II.....	\$220.00/hr
Senior Project Manager/Specialist I.....	\$210.00/hr
Environmental Specialist/Planner VI.....	\$190.00/hr
Environmental Specialist/Planner V.....	\$170.00/hr
Environmental Specialist/Planner IV.....	\$160.00/hr
Environmental Specialist/Planner III.....	\$150.00/hr
Environmental Specialist/Planner II.....	\$130.00/hr
Environmental Specialist/Planner I.....	\$120.00/hr
Analyst III.....	\$110.00/hr
Analyst II.....	\$100.00/hr
Analyst I.....	\$90.00/hr
Planning Assistant II.....	\$80.00/hr
Planning Assistant I.....	\$70.00/hr

COASTAL PLANNING/POLICY SERVICES

Senior Project Manager/Coastal Planner II.....	\$215.00/hr
Senior Project Manager/Coastal Planner I.....	\$205.00/hr
Environmental Specialist/Coastal Planner VI.....	\$195.00/hr
Environmental Specialist/Coastal Planner V.....	\$175.00/hr
Environmental Specialist/Coastal Planner IV.....	\$165.00/hr
Environmental Specialist/Coastal Planner III.....	\$155.00/hr
Environmental Specialist/Coastal Planner II.....	\$145.00/hr
Environmental Specialist/Coastal Planner I.....	\$135.00/hr

ARCHAEOLOGICAL SERVICES

Senior Project Manager/Archaeologist II.....	\$210.00/hr
Senior Project Manager/Archaeologist I.....	\$200.00/hr
Environmental Specialist/Archaeologist VI.....	\$180.00/hr
Environmental Specialist/Archaeologist V.....	\$160.00/hr
Environmental Specialist/Archaeologist IV.....	\$150.00/hr
Environmental Specialist/Archaeologist III.....	\$140.00/hr
Environmental Specialist/Archaeologist II.....	\$130.00/hr
Environmental Specialist/Archaeologist I.....	\$120.00/hr
Environmental Specialist/Paleontologist III.....	\$160.00/hr
Environmental Specialist/Paleontologist II.....	\$140.00/hr
Environmental Specialist/Paleontologist I.....	\$120.00/hr
Paleontological Technician III.....	\$80.00/hr
Paleontological Technician II.....	\$70.00/hr
Paleontological Technician I.....	\$50.00/hr
Archaeologist Technician II.....	\$70.00/hr
Archaeologist Technician I.....	\$50.00/hr

CONSTRUCTION MANAGEMENT SERVICES

Principal/Manager.....	\$195.00/hr
Senior Construction Manager.....	\$180.00/hr
Senior Project Manager.....	\$160.00/hr
Construction Manager.....	\$150.00/hr
Project Manager.....	\$140.00/hr
Resident Engineer.....	\$140.00/hr
Construction Engineer.....	\$135.00/hr
On-site Owner's Representative.....	\$130.00/hr
Construction Inspector III.....	\$125.00/hr
Construction Inspector II.....	\$115.00/hr
Construction Inspector I.....	\$105.00/hr
Prevailing Wage Inspector.....	\$135.00/hr

COMPLIANCE SERVICES

Compliance Director.....	\$200.00/hr
Compliance Manager.....	\$140.00/hr
Compliance Project Coordinator.....	\$100.00/hr
Compliance Monitor.....	\$90.00/hr

HYDROGEOLOGICAL SERVICES

Principal.....	\$235.00/hr
Sr. Hydrogeologist IV/Engineer IV.....	\$215.00/hr
Sr. Hydrogeologist III/Engineer III.....	\$200.00/hr
Sr. Hydrogeologist II/Engineer II.....	\$180.00/hr
Sr. Hydrogeologist I/Engineer I.....	\$165.00/hr
Hydrogeologist VI/Engineer VI.....	\$150.00/hr
Hydrogeologist V/Engineer V.....	\$140.00/hr
Hydrogeologist IV/Engineer IV.....	\$130.00/hr
Hydrogeologist III/Engineer III.....	\$120.00/hr
Hydrogeologist II/Engineer II.....	\$110.00/hr
Hydrogeologist I/Engineer I.....	\$100.00/hr
Technician.....	\$95.00/hr

DISTRICT MANAGEMENT & OPERATIONS

District General Manager.....	\$175.00/hr
District Engineer.....	\$160.00/hr
Operations Manager.....	\$150.00/hr
District Secretary/Accountant.....	\$85.00/hr
Collections System Manager.....	\$95.00/hr
Grade V Operator.....	\$100.00/hr
Grade IV Operator.....	\$85.00/hr
Grade III Operator.....	\$80.00/hr
Grade II Operator.....	\$63.00/hr
Grade I Operator.....	\$55.00/hr
Operator in Training.....	\$40.00/hr
Collection Maintenance Worker II.....	\$55.00/hr
Collection Maintenance Worker I.....	\$40.00/hr

OFFICE SERVICES

Technical/Drafting/CADD Services

3D Graphic Artist.....	\$150.00/hr
Senior Designer.....	\$140.00/hr
Designer.....	\$130.00/hr
Assistant Designer.....	\$125.00/hr
GIS Specialist IV.....	\$150.00/hr
GIS Specialist III.....	\$140.00/hr
GIS Specialist II.....	\$130.00/hr
GIS Specialist I.....	\$120.00/hr
CADD Operator III.....	\$120.00/hr
CADD Operator II.....	\$115.00/hr
CADD Operator I.....	\$100.00/hr
CADD Drafter.....	\$90.00/hr
CADD Technician.....	\$80.00/hr

SUPPORT SERVICES

Technical Editor III.....	\$140.00/hr
Technical Editor II.....	\$125.00/hr
Technical Editor I.....	\$110.00/hr
Publications Specialist III.....	\$100.00/hr
Publications Specialist II.....	\$90.00/hr
Publications Specialist I.....	\$80.00/hr
Clerical Administration II.....	\$80.00/hr
Clerical Administration I.....	\$75.00/hr

Forensic Engineering – Court appearances, depositions, and interrogatories as expert witness will be billed at 2.00 times normal rates.

Emergency and Holidays – Minimum charge of two hours will be billed at 1.75 times the normal rate.

Material and Outside Services – Subcontractors, rental of special equipment, special reproductions and blueprinting, outside data processing and computer services, etc., are charged at 1.15 times the direct cost.

Travel Expenses – Mileage at current IRS allowable rates. Per diem where overnight stay is involved is charged at cost.

Invoices/Late Charges – All fees will be billed to Client monthly and shall be due and payable upon receipt. Invoices are delinquent if not paid within thirty (30) days from the date of the invoice. Client agrees to pay a monthly late charge equal to one percent (1%) per month of the outstanding balance until paid in full.

Annual Increases – Unless identified otherwise, these standard rates will increase 3% annually.



Date: November 4, 2015

Prepared By: Bob Wall, Operations Manager

Subject: Authorization to Award a Contract for Annual Water Storage Reservoir Cleaning and Inspection Services

Recommendation: That the Board awards a contract to Workhorse Diving and Salvage for a sum not to exceed \$40,850.

Each year the Yucaipa Valley Water District staff inspects and cleans our drinking water and recycled water storage reservoirs. This year the District staff has scheduled eleven potable reservoirs, and four recycled water reservoirs for a total of fifteen facilities that will be inspected and cleaned.



Requests for Proposals (RFP) were sent to eight interested underwater diving service companies that specialize in this type of work. The companies that submitted proposals include:

- Workhorse Diving & Salvage - \$40,850.00
- Inland Potable Services - \$44,499.00
- Harper & Associates Engineering - \$48,480.00
- Marine Diving Solutions - \$49,245.00
- Rubicon Applied Divers - \$55,454.00

Any reservoir paint coating issues found in any of the inspected facilities will be addressed by the District staff on a case-by-case basis and are not included in the cost provided above.

Fiscal Considerations

Funds for this effort will be allocated from Water, and Recycled Water Division, Repair & Maintenance - Structures (0x-5-0x-51003) within the Fiscal Year 2016 Budget.

WORKHORSE DIVING & SALVAGE

515 E. Carefree Hwy #488
Phoenix, Arizona 85085
(602) 684-8369

Sherry Johnston: sherry@workhorsediving.com

REQUEST FOR PROPOSAL RESERVOIR CLEANING & INSPECTION



YUCAIPA VALLEY WATER DISTRICT

Jack Nelson
PO Box 730
Yucaipa, CA 92399

RECEIVED

OCT 01 2015

**YUCAIPA VALLEY
WATER DISTRICT**

Date: October 1, 2015

This document is the property of Workhorse Diving and Salvage and is not for general disclosure. The information contained herein is confidential and is intended only for those persons or entities having a legitimate right to receive it. If you have received this document in error, please notify the sender immediately and delete this document from your system. Workhorse Diving and Salvage

A. STATEMENT OF QUALIFICATIONS:

Workhorse Diving & Salvage, LLC (WDS), an Arizona Corporation, is a Veteran owned Small Business Enterprise (SBE) and is composed of a team of experienced, well qualified, professionals who have been performing commercial diving services for Private, Municipal, Public Safety, Hydroelectric and Nuclear markets for over 16 years. WDS has accumulated redundancy with state of the art equipment to provide the required work with a high level of reliability.

Founded in April 2015, Jason Jettie owner/operator of WDS previously worked at Applied Diving Services, Inc. as its Operation Manager for 4-1/2 years and as the Dive Supervisor for 4 years. WDS offers complete *turnkey* services for an array of underwater applications based upon sound technical standards and innovative solutions to underwater challenges. Our services include, but are not limited to, inspection, cleaning, leak sealing, repair, construction, and modification to existing facilities.

WDS has become an influential refuge in the resource of municipal plant operators and construction contractors in dealing with the variety of problems encountered during the day-to-day operations of water and wastewater treatment plants and related systems. Whether repairing bar screens at the head works of a wastewater plant, installing cofferdams in lakes to facilitate the repair of low-level dams, inspecting and cleaning clearwell tanks, or sealing leaks at gates and in finished water reservoirs, WDS has consistently provided owners and general contractors with cost-effective solutions to the most difficult of the challenges encountered in underwater work. Most often, our work is performed without the necessity of dewatering or having to resolve difficult by-pass, access or confined space issues.

CALIFORNIA DEPARTMENT OF PUBLIC RELATIONS:

Public Works Contractor Registration Number: 1000026069 Expires: 6/30/16

1. Diver Experience

- a. Dive Supervisor – Resume Attached.
- b. Dive School Certifications – Submitted upon request.
- c. Association of Diving Contractors Supervisor Certification – Jason Jettie, Attached.
- d. CPR & First Aid Certifications – Current.

2. References

City of Buckeye, Arizona
 Mike Hirvonen
 623-692-4015
 Email: mikehirvonen@buckeyeaz.gov

Entellus, Inc.
 Michael Bonar
 602-244-2566
 Email: mbonar@entellus.com

EPCOR Water
 Hector Delgadillo
 602-377-0324
 Email: hdelgadillo@epcor.com

Federal Bureau of Prisons
 FCC-Tucson
 Gerald Flores
 520-574-7100 X7325
 Email: g1flores@bop.gov

Montezuma Castle National Monument
 Wendell Bailey
 928-587-3484 X222
 Email: wendell_bailey@nps.gov

City of Safford, Arizona
 Potable Water Tanks – Inspected June, 2015
 Inspection of (5) tanks - (2) 2.5MG, (1) 2MG, (2) 750KG tanks.

- 3. Similar Projects - Potable Water Storage Tanks – Metal Thickness Testing - Previously with Applied Diving many municipalities and water utility districts.

Arizona Water Company
 City of Henderson, Nevada

City of Peoria, Arizona
 City of Kingman, Arizona

B. SCOPE OF WORK:

Adhering to prevailing wage laws, a three man dive team will be utilized for the cleaning and inspection of the reservoirs as listed. The inspection will include the extent of coating and materials deterioration, area by area within the structure. The principle areas of consideration are the interior shell and appurtenances, the supporting structural steel, if applicable, and the non-immersed areas of the interior shell and appurtenances. Each reservoir will be inspected for internal and external condition of the structural material, reinforcing structures, paint and/or coatings, safety appurtenances as well as the sanitary/security equipment. The reservoir(s) interior will be inspected without draining or removing the reservoir from service.

It is often necessary to clean sediment accumulation from the reservoir floor in order to perform a complete inspection of the floor plates, weldments and coating. Video documentation of the floor will be obtained during the inspection, which will indicate the amount of debris and sediment present. The accumulated sediment will be removed, encapsulated within filtration bags and left onsite to dewater. All discharged water will be de-chlorinated as designated within RFP. *During the time of the cleaning and inspection, it is requested that YVWD maintain the water level within the reservoir at near full to overflow.* This allows divers the required headroom, yet enables easy access to document the interior surfaces and appurtenances. Interior inspection, both over and underwater, will be conducted to determine the condition of the reservoirs shell, roof beams, column(s), ladders, interior coating, depth monitoring equipment, cathodic protection equipment, etc. Sediment depth in excess of 1" for potable and 3" for non-potable will be discussed with YVWD personnel, an estimate of time to remove will be agreed upon and billing will be adjusting accordingly.

A typed report will be generated within two weeks of the completion of the project on the team's findings referencing video related inspection information. The report will include the existing condition of the interior and exterior of each reservoir and provide recommendations for repairs, if necessary and an evaluation of ongoing maintenance needs. A high-resolution color video camera will be attached to the divers helmet and monitored at the surface dive station by the dive supervisor and, if desired, by representatives of the client.

Direct communications with the diver will be maintained at all times. WDS confined space entry permit(s) will be completed prior to diver entry to the facility. If required, diver and all equipment entering the facility shall be decontaminated per ANSI/AWWA C652-11 prior to entry.

All WDS dive team members are fully certified commercial divers having completed a rigorous academic and apprenticeship program. All WDS dive team members maintain current CPR, First Aid, O2 Provider training as well as site specific training. All WDS dive team members are fully certified, trained and prepared for entry into confined spaces and areas that have been subjected to bacteriological hazards.

WDS entry to potable water areas follow the strict guidelines mandated by the AWWA and CA DPH for potable water dives.

Disinfection Procedures (Potable Water)

1. All equipment and clothing used is dedicated to potable water.
 - A. Equipment and clothing used is stored in a manner that prevents both chemical and bacteriological contamination.
 - B. Only dry diving helmets will be used.
 - C. Only vulcanized rubber dry suits will be used, free from tears, scrapes, and un-repaired areas of other imperfections that may impair the integrity of the suit.
2. Disinfection of all Equipment
 - A. All equipment used will be disinfected using a minimum of 200ppm+ Chlorine immediately prior to entering system
 - B. Method of equipment disinfection will be spraying with and/or scrubbing disinfection solution.
 - C. The disinfection solution shall have a minimum of 200mg/L free available chlorine.

YVWD will be responsible for:

- Providing an on-site District representative at all times during diving operations.
- Removing filtration bags from each site.
- Maintaining water levels in each reservoir at or near full capacity during the inspection operation.
- Allowing for 6-day per week operations, Sundays and District observed holidays excluded.
- Providing a District operated man-lift for access to the top of each reservoir.

NOTE: WDS understands that YVWD, at its discretion, reserves the right to remove any tank from the tank cleaning list after contract award. This will result in the corresponding contract deduction per that line item amount.

WDS will be responsible for:

- Following all federal and CA State OSHA requirements, including confined space entry procedures.
- Provide verbal and written reports with photos of each reservoir. Including but not limited to, the internal components and identified areas by quadrant of corrosion or interior coating damage. Each report will include high resolution video documentation in DVD format.
- With regards to the concrete tanks, the 7' square column footings shown on the submitted plans, will be cleaned and inspected as an integral part of the floor area.
- Following AWWA and CA DPH protocol for disinfection of divers and equipment.
- Providing an adequate generator to supply electric power.

C. PRICE PROPOSAL:

	RESERVOIR NUMBER	CAPACITY	STRUCTURE	PRICING
1	11.1 Potable	1,700,000	Steel	\$ 2,031
2	12.1 Potable	3,000,000	Steel	\$ 2,904
3	13.3 Potable	2,000,000	Steel	\$ 2,904
4	14.2 Potable	2,000,000	Steel	\$ 2,904
5	15.3 Potable	1,500,000	Steel	\$ 2,322
6	16.2 Potable	210,000	Steel	\$ 1,449
7	16.5 Potable	1,000,000	Steel	\$ 2,322
8	17.4 Potable	600,000	Steel	\$ 1,740
9	18.4 Potable	750,000	Steel	\$ 1,740
10	19.11 Potable	45,000	Steel	\$ 1,449
11	19.12 Potable	160,000	Steel	\$ 1,449
12	Free Surface Structure Non Potable	180,000	Concrete	\$ 1,740
13	Np-12.1	2,100,000	Steel	\$ 2,904
14	G1 Non Potable	4,000,000	Buried Concrete	\$ 5,233
15	Np-8.1	4,000,000	Concrete Above Gr	\$ 4,360
16	WW MF Wet Well	91,000	Concrete	\$ 1,449
				\$ 38,900
	MOB/DEMOB			\$ 1,110
	FILTER BAGS			\$ 840
	TOTAL			\$ 40,850



Director Memorandum 15-100

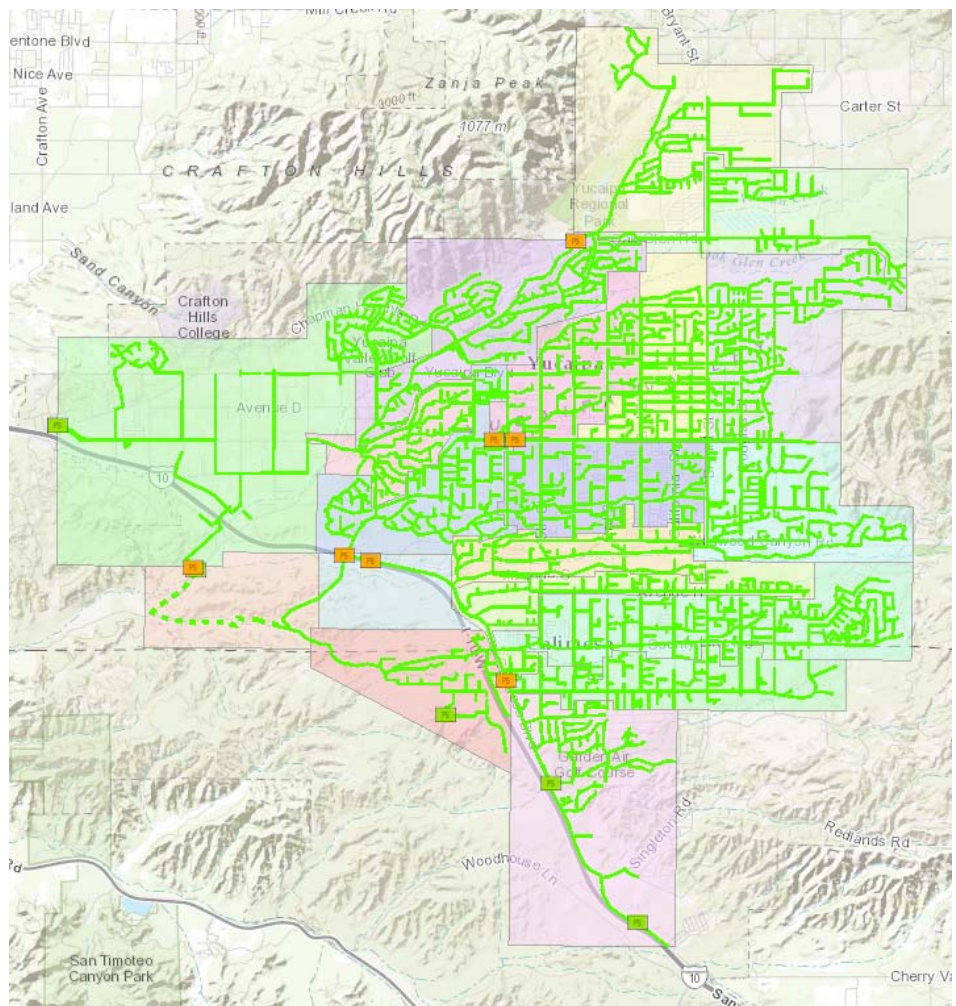
Date: November 4, 2015

Prepared By: John Wrobel, Regulatory & Environmental Control Manager

Subject: Authorization to Execute Amendment No. 14 with ADS Environmental Services for the Installation of Three ADS Triton+ Sewer Collection System Flow Monitors

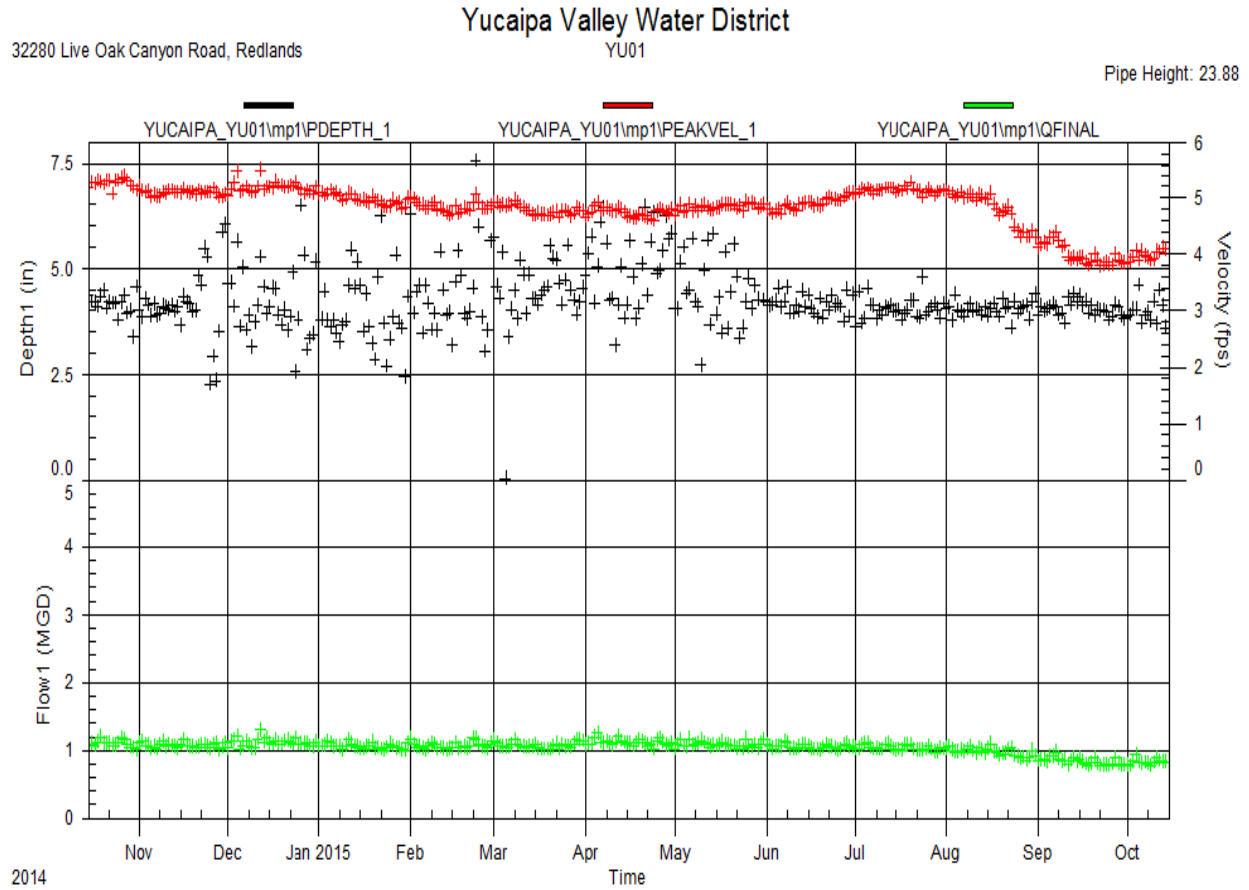
Recommendation: That the Board approves Amendment No. 14 as presented.

In 2000, the District conducted an inflow and infiltration study of our sewer collection system which established the flow characteristics of seventeen sewer collection sub-basins throughout the District. Shortly after the study was completed, the Board of Directors authorized the purchase of six flow monitors to be installed in the sewer collection system for monitoring purposes. The map to the right shows the subbasins and the existing flow monitors located throughout our sewer collection system.



On October 16, 2015, the Yucaipa Valley Water District received correspondence from the Santa Ana Regional Water Quality Control Board (attached) requiring the District to take the appropriate actions to prevent a sanitary sewer overflow during the predicted El Nino season.

One key element to the District's sanitary sewer monitoring system is the use of flow monitors that actively monitor sewer flows throughout the District. The data collected consists of depth, velocity and quantity of sewage that flows past a monitoring station. The graph below shows the annual trends of sewer flow characteristics at Lift Station No. 1.



The District staff recommends installing three additional flow monitors in the sewer collection system. The three new flow monitors will increase the existing network and improve the records of inflow and infiltration during the anticipated winter storms.

Fiscal Considerations

Funds for this effort will be allocated from Sewer Division, Asset Acquisition, Environmental Control (03-5-40-57007) within the Fiscal Year 2016 Budget.

AMENDMENT 14**TO AGREEMENT BETWEEN YUCAIPA VALLEY WATER DISTRICT AND ADS ENVIRONMENTAL SERVICES FOR PROFESSIONAL OR TECHNICAL SERVICES**

This Amendment 14 (hereinafter referred to as "Amendment 14") is made and entered into this day of October, 2015, by and between the Yucaipa Valley Water District (hereinafter referred to as "Owner") and ADS Environmental Services, a division of ADS CORP. (formerly ADS LLC. And ADS Corporation, hereinafter referred to as "ADS"). Collectively, Owner and ADS are sometimes referred to in this Amendment as the "Parties".

WHEREAS, On April 3, 2002, Owner and ADS did enter into an agreement to provide comprehensive maintenance service on six (6) ADS flow monitors (hereinafter referred to as "Agreement"); and

WHEREAS, On May 19, 2003, the Parties did enter into Amendment 1 to extend the period of service under the Agreement from May 1, 2003 to April 30, 2004 and to modify the annual cost of comprehensive maintenance service to \$439/monitor/month, \$31,608.00 annually (hereinafter referred to as "Amendment 1"); and

WHEREAS, On August 7, 2003, the Parties did agree to modify Amendment 1 to add one-time maintenance on one (1) of the six (6) ADS flow monitors to repair damage to communication conduit and cabling included in the Agreement; and

WHEREAS, On April 28, 2004, the Parties did enter into Amendment 2 to extend the period of service for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2004 to March 31, 2005; and

WHEREAS, on July 8, 2005, the Parties did enter into Amendment 3 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2005 to March 31, 2006 for a total increase of \$31,608 (\$439.00/monitor/month); and

WHEREAS, on April 25, 2006, the Parties did enter into Amendment 4 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2006 to April 31, 2007 for a total increase of \$31,608 (\$439/monitor/month); and

WHEREAS, on June 18, 2007, the Parties did enter into Amendment 5 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2007 to April 31, 2008 for a total increase of \$31,608 (\$439/monitor/month); and

WHEREAS, on April 28, 2008, the Parties did enter into Amendment 6 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2008 to April 31, 2009 for a total increase of \$31,608 (\$439/monitor/month); and

WHEREAS, on April 20, 2009, the Parties did enter into Amendment 7 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2009 to April 31, 2010 for a total increase of \$31,608 (\$439/monitor/month); and

WHEREAS, on April 15, 2010, the Parties desire to enter into Amendment 8 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2010 to April 31, 2011 for a total increase of \$31,608 (\$439/monitor/month); and

WHEREAS, on April 25, 2011, the Parties desire to enter into Amendment 9 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2011 to April 31, 2012 for a total increase of \$31,608 (\$439/monitor/month); and

WHEREAS, on April 24, 2012, the Parties desire to enter into Amendment 10 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2012 to April 31, 2013 for a total increase of \$31,608 (\$439/monitor/month); and

WHEREAS, on April 24, 2013, the Parties desire to enter into Amendment 11 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2013 to April 31, 2014 for a total increase of \$31,608 (\$439/monitor/month); and

WHEREAS, the Parties desire to enter into Amendment 12 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2014 to April 31, 2015 for a total increase of \$31,608 (\$439/monitor/month); and

WHEREAS, the Parties desire to enter into Amendment 13 to extend the period of service of the Agreement for comprehensive maintenance service on six (6) ADS flow monitors from May 1, 2015 to April 31, 2016 for a increase of \$31,608 (\$439/monitor/month) and an additional \$3,628.00 for the 2G modem replacement on all six (6) Triton's for a total increase of \$35,236.00; and

WHEREAS, the Parties desire to enter into Amendment 14 to supply and install three (3) new ADS Triton+ wireless flow monitors for an increase of \$23,457.00 includes taxes at 8%. Amendment 14 also includes comprehensive maintenance service on the three (3) new ADS flow monitors from December 1, 2015 to April 31, 2016 for an increase of \$6,585.00 (\$439/monitor/month). Total increase of Amendment 14 is \$30,042.00; and

NOW, THEREFORE, BE IT RESOLVED, the Parties for the consideration set forth herein, agree as follows:

1.0 ADS shall perform the work under this Amendment in accordance with and subject to all applicable terms, conditions, clauses, stipulations, and Exhibits set forth in the Agreement, except as amended.

IN WITNESS WHEREOF, the Parties have executed this Amendment 14 by their duly authorized officers, as of the date first above written.

FOR OWNER:

BY: _____

NAME: _____

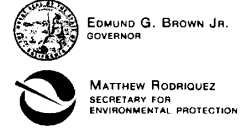
TITLE: _____

FOR ADS CORP:

BY:  _____

NAME: PAUL FORSTHOEFEC

TITLE: REGION MANAGER



Santa Ana Regional Water Quality Control Board

October 16, 2015

By Electronic Mail

**Attention: Sewage Collection System Owners
and Operators Enrolled Under the State Water
Resources Control Board Order No. 2006-0003-DWQ**

**Subject: Collection System Preparation for Anticipated 2015-2016 El Nino Rainy
Season**

The Santa Ana Regional Water Quality Control Board (Santa Ana Regional Board) is sending you this courtesy reminder to prepare your sanitary sewer collection system for the 2015-2016 rainy season.

As you know, municipalities and other public entities that own and operate a sewage collection system within the Santa Ana Regional Board jurisdiction (Region) are regulated under the Statewide General Waste Discharge Requirements (WDR) for Sanitary Sewer System, Order No. 2006-0003- DWQ¹ (General Order). The General Order prohibits the discharge of untreated or partially treated wastewater to the waters of the United States. The General Order also requires the development and implementation of sanitary sewer management plans (SSMPs) that contain requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows (SSOs). Proper collection system operation and maintenance includes the periodic or continuing process to identify problems including proactive identification and elimination of inflow and infiltration and structural vulnerabilities to prevent or minimize SSOs during rain events.

For months, the National Oceanic and Atmospheric Administration (NOAA) has been predicting that El Nino, a condition that occurs when a band of warm ocean water develops in the Pacific Ocean that causes changes in rainfall, will continue through the Northern Hemisphere during the winter of 2015-2016. As with past El Nino years, this weather pattern has the potential to produce higher than average rainfall amounts in the Region.

Since the prediction for El Nino has been anticipated for quite some time, the Regional Board is notifying all Enrollees in the Region to ensure that necessary actions to prevent SSOs during the rainy season has been taken. You are reminded that failure to demonstrate that adequate preventative measures were taken that could have minimized or prevented a known or otherwise anticipated wet weather problem that resulted in an SSO may result in civil monetary penalties pursuant to the California Water Code.

¹ As amended by Order Nos. 2008-0002-EXEC and 2013-0058-EXEC

WILLIAM RUH, CHAIR | KURT V. BERCHTOLD, EXECUTIVE OFFICER

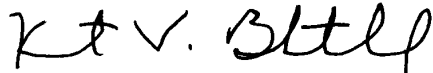
3737 Main St., Suite 500, Riverside, CA 92501 | www.waterboards.ca.gov/santaana

♻️ RECYCLED PAPER

Page 2 of 2

We appreciate your urgent attention in this matter to protect public health and water quality. Should you have any questions or comments please contact the Regional Board staff assigned to your facility in the enclosed list.

Sincerely,

A handwritten signature in black ink that reads "Kurt V. Berchtold". The signature is written in a cursive, slightly slanted style.

Kurt V. Berchtold
Executive Officer

Enclosure: List of Enrollees under Order No. 2006-0003-DWQ and Regional Board Staff Assignment

HARDWARE

ADS TRITON+®

The new ADS TRITON+® is a "Fit-for-Purpose" open channel flow monitor for use in sanitary, combined, and storm sewers. It is designed to be the most versatile flow monitoring system available for wastewater collection applications. It supports single pipe or dual pipe flow measurement installations and is certified to the highest level of Intrinsic Safety.

ADS TRITON+

This multiple technology flow monitor will power almost every available sensor technology that is used in wastewater applications today. It is the most versatile and cost-effective, multiple-technology flow monitor on the market. The TRITON+ includes three multiple technology sensor options: a Peak Combo Sensor, a Surface Combo Sensor, and an Ultrasonic Level Sensor (see inside for technology and specifications). This array of monitoring technologies provides for unmatched flexibility in a fully integrated, fit-for-purpose monitoring platform.

The TRITON+ platform adapts to a wide range of customer applications and budgets. It can be configured as an economical single sensor monitor or dual sensor monitor. It offers a longer battery life and fewer parts for a more reliable system. This provides a lower purchase price and a lower ownership cost over the life of the monitor. The TRITON+ has the lowest operational cost per data sample of any Intrinsically Safe flow monitor available.



About ADS

A leading technology and service provider, ADS Environmental Services® has established the industry standard for open channel flow monitoring and has the only ETV-verified flow monitoring technology for wastewater collection systems. These battery-powered monitors are specially designed to operate with reliability, durability, and accuracy in sewer environments.

TRITON+ Features

- Versatile performance that is easy to install and operate
- Two sensor ports supporting 3 interchangeable sensors providing up to 6 sensor readings at a time
- Single or dual pipe/monitoring point measurement capabilities
- Multi-carrier cellular 3G/4G UMTS/HSPA+ or Verizon® CDMA/EV-DO wireless communications; direct serial communications also available
- Industry-leading battery life with a wireless connection providing up to 15 months at the standard 15-minute sample rate (*varies with sensor configuration*)
- External power and Modbus network connectivity option available with an ADS External Power and Communications Unit (ExpAC™) and a 9-36 VDC power supply or an ADS XBUS™ which includes a power supply
- Analog and digital I/O expansion (4-20 mA and dry contacts) available with an ADS External I/O unit (XIO™)
- Modbus protocols enabling RTUs to help simplify SCADA system integration
- Supports the delivery of CSV files to an FTP site at user-defined intervals, and direct monitor SMS and e-mail messaging
- Supports actuation of a water quality sampler for flow proportional or level-based operation
- Monitor-Level Intelligence (MLI®) enables the TRITON+ to effectively operate over a wide range of hydraulic conditions
- Superior noise reduction design for maximizing acoustic signal detection from depth and velocity sensors
- Five software packages for accessing flow information: Qstart™ (configuration and activation); FlowView Operations (web-based alarming); Slicer.com® (I/I analysis); FlowView Portal® (online data presentation and reporting); and Profile® (data collection, analysis, and reporting)
- Intrinsically-Safe (IS) certification by IECEx for use in Zone 0/Class I, Division 1, Groups C & D, ATEX Zone 0, and CSA Class I, Zone 0, IIB
- Thick, seamless, high-impact, ABS plastic canister with aluminum end cap (meets IP68 standard)
- Innovative circuit board dome-enclosure protects and limits exposure of electronics when opening the canister to change the battery

To Learn more, visit www.adsenv.com/TRITON+

ADS ENVIRONMENTAL SERVICES®
A Division of ADS LLC

TRITON+ Specifications

Connectors

U.S. Military specification MIL-C 26482 series 1, for environmental sealing, with gold-plated contacts

Communications

- Verizon® CDMA/EV-DO cellular wireless modem, or Hepta band UMTS/HSPA+ cellular wireless modem
- Direct connection to PC using an ADS USB serial cable

Monitor Interfaces

- Supports simultaneous interfaces with up to two combo sensors
- Supports optional Analog and Digital I/O with ADS XIO: two 4-20 mA inputs and outputs, two switch inputs and two relay outputs

Power

Internal - Battery life with a cellular modem:

- Over 15 months at a 15-minute sample rate[®]
- Over 6 months at a 5-minute sample rate[®]

External - Optional external power available with ADS External Power and Communications Unit (ExPAC) with an ADS- or customer-supplied 9-36 Volt DC power supply

[®] Rate based on collecting data once a day and varies according to sensor configuration and operating temperature

Operating and Storage Temperature

-4 degrees to 140 degrees F (-20 degrees to 60 degrees C)

Connectivity

- Modbus ASCII: Wireless; Wired using ADS ExPAC or XBUS
- Modbus RTU: Wireless; Wired using ADS ExPAC or XBUS
- Modbus TCP: Wireless only

Intrinsic Safety Certification

- Certified under the ATEX European Intrinsic Safety standards for Zone 0 rated hazardous areas
- Certified under IECEx (International Electro technical Commission Explosion Proof) Intrinsic Safety standards for use in Zone 0/Class I, Division 1, Groups C&D rated hazardous areas
- CSA Certified to CLASS 2258 03 - Process Control Equipment, Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations, Ex in IIB T3 (152 degrees C)

Other Certifications/Compliances

- FCC Part 15 and Part 68 compliant
- Carries the EU CE mark
- ROHS (lead-free) compliant
- Canada IC CS-03 compliant



ADS Flow Monitoring Software



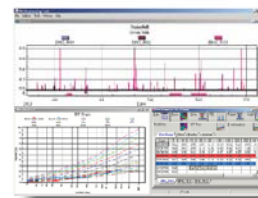
Qstart is desktop software providing field crews with a simple, easy-to-use tool for quickly activating and configuring ADS flow monitors. Qstart enables the user to collect and review the monitor's depth and velocity data in hydrograph and tabular views simultaneously.

FlowView Operations is web-hosted software providing near real-time operational intelligence on the status of flow activity throughout the wastewater collection system. FlowView Operations utilizes dynamic (or smart) alarming to inform clients about the occurrence of rain events, flow performance abnormalities, and data anomalies at the flow monitoring locations.

FlowView Portal is web-hosted software providing robust report delivery, enabling the user to manage data, customize reports, and select viewing parameters. FlowView Portal has a virtually unlimited database for storing and accessing historical data, using data for comparison and trend analysis purposes, and sharing information electronically.

Slicer.com is web-hosted software providing a powerful set of engineering tools designed for both the consulting and municipal engineer. Slicer.com's inflow and infiltration tools examine wastewater collection system dry and wet weather flow data and provide rigorous performance measurements in one-tenth the time of other analysis tools.

Profile is desktop software providing the industry's best data analysis tools, from basic flow monitoring data to complex hydraulic analysis. Profile is intuitive software that saves time and improves data quality by compiling project data into one location for analysis and reporting.



FLOW MONITORING APPLICATIONS

- Billing
- Inflow/Infiltration
- Model Calibration
- Combined Sewer Overflows (CSOs)
- Stormwater Monitoring
- Capacity Analysis
- Spill Notification

Multiple Technology Sensors

The **TRITON+** features three depths and two velocities with three sensor options. Each sensor provides multiple technologies for continuous running of comparisons.

Peak Combo Sensor



Dimensions: 6.76 inches (172 mm) long x 1.23 inches (31 mm) wide x 0.83 inches (21 mm) high

This versatile and economical sensor includes three measurement technologies in a single housing: ADS-patented continuous wave peak velocity, uplooking ultrasonic depth, and pressure depth.

Continuous Wave Velocity

Range: -30 feet per second (-9.1 m/s) to +30 ft/sec (9.1 m/s)

Resolution: 0.01 feet per second (0.003 m/s)

Accuracy: +/- 0.2 feet per second (0.06 m/s) or 4% of actual peak velocity (whichever is greater) in flow velocities between -5 and 20 ft/sec (-1.52 and 6.10 m/s)

Uplooking Ultrasonic Depth

Performs with rotation of up to 15 degrees from the center of the invert; up to 30 degrees rotation with Silt Mount Adapter

Operating Range: 1.0 inch (25 mm) to 5 feet (152 cm)

Resolution: 0.01 inches (0.254 mm)

Accuracy: 0.5% of reading or 0.125 inches (3.2 mm), whichever is greater

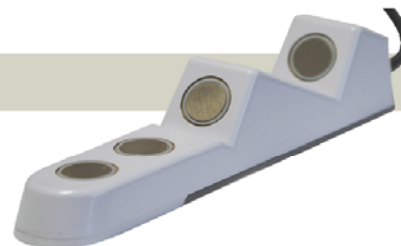
Pressure Depth

Range: 0-5 PSI up to 11.5 feet (3.5 m); 0-15 PSI up to 34.5 feet (10.5 m); or 0-30 PSI up to 69 feet (21.0 m)

Accuracy: +/-1.0% of full scale

Resolution: 0.01 inches (0.25 mm)

Surface Combo Sensor



Dimensions: 10.61 inches (269 mm) long x 2.03 inches (52 mm) wide x 2.45 inches (62 mm) high

This revolutionary new sensor features four technologies including surface velocity, ultrasonic depth, surcharge continuous wave velocity, and pressure depth.

Surface Velocity *

Minimum air range: 3 inches (76 mm) from the bottom of the rear, descended portion of the sensor

Maximum air range: 42 inches (107 cm)

Range: 1.00 to 15 feet per second (0.30 to 4.57 m/s)

Resolution: 0.01 feet per second (0.003 m/s)

Accuracy: +/-0.25 feet per second (0.08 m/s) or 5% of actual reading (whichever is greater) in flow velocities between 1.00 and 15 ft/sec (0.30 and 4.57 m/s)

* The flow conditions existing in some applications may prevent the surface velocity technology from being used.

Ultrasonic Depth

(Does not require electronic offsets)

Minimum dead band: 1.0 inches (25.4 mm) from the face of the sensor or 5% of the maximum range, whichever is greater

Maximum operating air range: 10 feet (3.05 m)

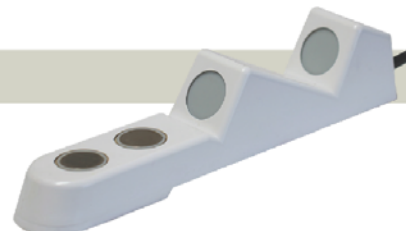
Resolution: 0.01 inches (0.25 mm)

Accuracy: +/- 0.125 inches (3.2 mm) with 0.0 inches (0 mm) drift, compensating for variations in air temperature

Surcharge Continuous Wave Velocity (Under submerged conditions, this technology provides the same accuracy and range as **Continuous Wave Velocity** for Peak Combo Sensors)

Surcharge Pressure Depth (Under submerged conditions, this technology provides the same accuracy and range as **Pressure Depth** for Peak Combo Sensors)

Ultrasonic Level Sensor



Dimensions: 10.61 inches (269 mm) long x 2.03 inches (52 mm) wide x 2.45 inches (62 mm) high

This non-intrusive, zero-drift sensing method results in a stable, accurate, and reliable flow depth calculation. Two independent ultrasonic transducers allow for independent cross-checking.

Ultrasonic Depth (See **Ultrasonic Depth Specifications Above**)

ADS' Self-Contained Solutions for Power, Communication, Analog and Digital I/O and Modbus

The **TRITON+** COMM+EXT PWR port is used for external power via the ADS XIO, XBUS or ExpAC devices, delivery of Modbus output values as well as for on-site, direct monitor communication.

XIO Features

- Process variables measured by the **TRITON+** can be converted to two (2) 4-20mA loop output signals for SCADA systems or local display and control
- Logging capabilities of the **TRITON+** can be used for two (2) 4-20mA input process variables measured by other instrumentation
- Alarms produced by the **TRITON+** Monitor Level Intelligence (MLI) device can be output on the two (2) XIO relay contacts for process actuation
- Two (2) switch, solid state or dry contact digital inputs can be sampled and logged
- Design facilitates easy field wiring
- Supports easy plug and play configuration and start-up
- Associated Apparatus certification for use with approved equipment in Zone 0/Class I, Division 1, Groups C & D; ATEX Zone 0; and CSA Class I, Zone 0, IIB hazardous areas
- Rugged indoor/outdoor NEMA 4x case with hinged clear cover
- Accepts 85-264 VAC, 120-375 VDC; 47-62 Hz; 1.1A@110/0.59A @250 VAC
- Supplies 8 – 11.5 VDC, 500mA power to the **TRITON+** flow monitors



XBUS Features

- Supports Modbus RTU, ASCII and TCP/IP communications
- Wireless Modbus via **TRITON+** internal modem communications
- Connects to wired networks via RS485 or RS232
- Supports easy plug and play configuration and start-up
- Associated Apparatus certification for use with approved equipment in Zone 0/Class I, Division 1, Groups C & D; ATEX Zone 0; and CSA Class I, Zone 0, IIB hazardous areas
- Rugged indoor/outdoor NEMA 4x case with hinged clear cover
- Accepts 85-264 VAC, 120-375 VDC; 47-62 Hz; 1.1A@110/0.59A @250 VAC
- Supplies 8 – 11.5 VDC, 500mA power to the **TRITON+** flow monitors



ExpAC Features

- Designed to be housed in another enclosure
- Associated Apparatus certification for use with approved equipment in Zone 0/Class I, Division 1, Groups C & D; ATEX Zone 0; and CSA Class I, Zone 0, IIB hazardous areas
- Requires DC power input between 9 and 36 volts and a minimum of 15 watts
- Supplies DC power of 8 to 11.5 volts, 500mA to the **TRITON+** flow monitors
- RS485 and RS232 Modbus output connections to SCADA systems
- Wireless Modbus via **TRITON+** internal modem communications
- Supports Modbus RTU, ASCII and TCP/IP communications



1300 Meridian Street, Suite 3000 - Huntsville, AL 35801
 Phone: 256.430.3366/ Fax: 256.430.6633
 Toll Free: 1.800.633.7246

www.adsenv.com



Date: November 4, 2015

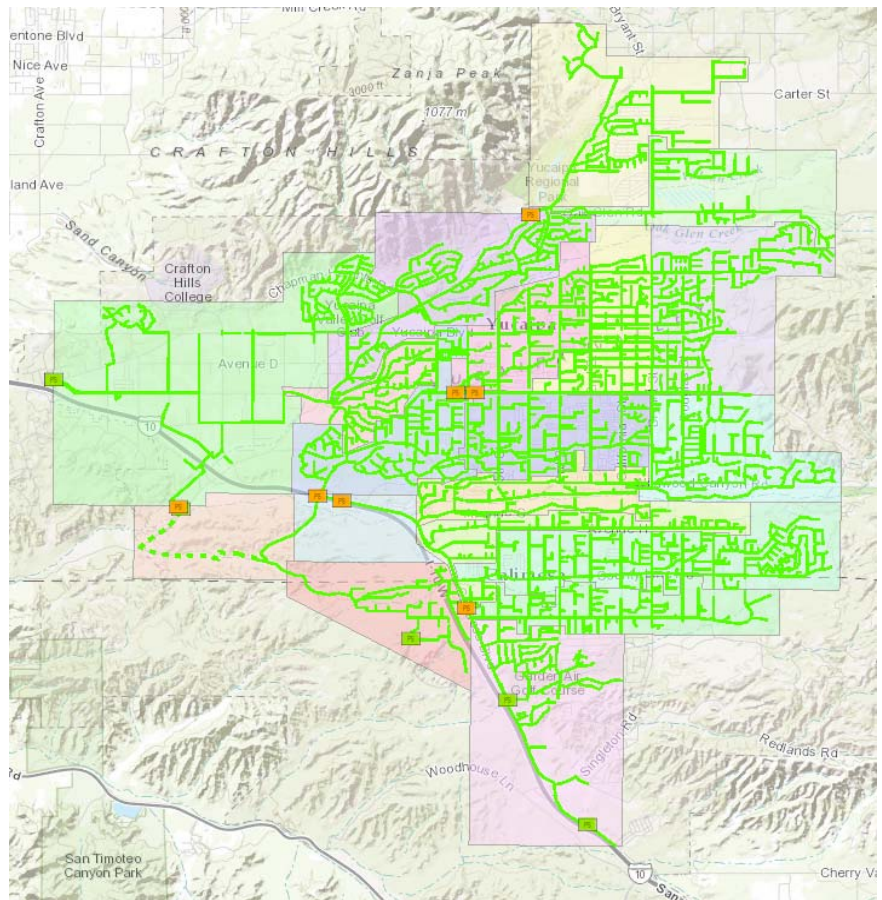
Prepared By: John Wrobel, Regulatory & Environmental Control Manager

Subject: Authorization to Procure, Install and Activate Nine (9) SmartCover Systems to Expand the Sewer Collection System and Sewer Lift Stations Monitoring Network

Recommendation: That the Board authorizes the District staff to execute the attached quotation from SmartCover Systems.

In 2000, the District conducted an inflow and infiltration study of our sewer collection system which established the flow characteristics of seventeen sewer collection sub-basins throughout the District. Shortly after the study was completed, the Board of Directors authorized the purchase of six flow monitors to be installed in the sewer collection system for monitoring purposes. On October 27, 2015, the District staff presented Workshop Memorandum No. 15-212 that included a recommendation to purchase three additional flow monitors to expand the collection system monitoring network.

The map to the right shows the subbasins and the existing flow monitors located throughout our sewer collection system.

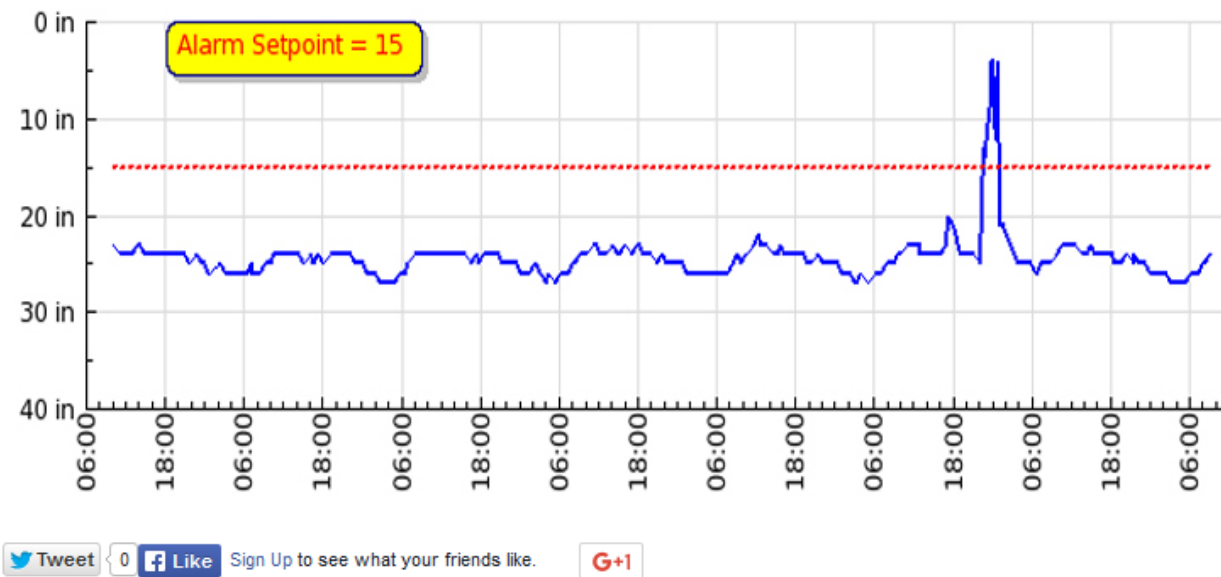


On October 16, 2015, the Yucaipa Valley Water District received correspondence from the Santa Ana Regional Water Quality Control Board (attached) requiring the District to take the appropriate actions to prevent a sanitary sewer overflow during the predicted El Nino season.

The District staff has reviewed a new monitoring system from SmartCover Systems that will actively monitor the District's sewer collection system. The smart manhole covers use the Iridium

Satellite System as a communication link into the data cloud to provide data about our collection system from any computer, tablet or smartphone. This system will actively monitor the collection system at various locations and sewer lift stations. The system is capable of sending an alarm if there is a surcharge event in the collection system. The diagram below illustrates an alarm set point based on flow levels in a manhole.

Example of Surcharge Alarm as viewed from the SmartCover Systems Secure Web Site:



The other benefit of this system is that it provides intrusion detection and collection system security. The manhole cover contains a wireless level monitoring system capable of issuing instant alarms and historical data logging capabilities. Intrusion detection, caused by vandals, unauthorized contractors, or illegal dumping, is detected at the manhole or any other point of entry. This is achieved using acceleration sensors and a microelectromechanical accelerometer. The unit will send an intrusion alarm to emergency personnel when an issue occurs at the point of entry, providing time for response or mitigation.

The unauthorized dumping or discharging of any pollutant, storm water, or any other substance whatsoever into a sanitary sewer or into the waters of the United States is illegal. Often times the sanitary sewer agency is responsible for any repercussions from the unauthorized dumping. Using this system for intrusion detection gives the District notice that an unauthorized intrusion is taking place so that response personnel can respond appropriately and stop, catch or document that an incident occurred.

Fiscal Considerations

Funds for this effort will be allocated from Sewer Division, Asset Acquisition, Environmental Control (03-5-40-57007) within the Fiscal Year 2016 Budget.

EDMUND G. BROWN JR.
GOVERNORMATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Santa Ana Regional Water Quality Control Board

October 16, 2015

By Electronic Mail

**Attention: Sewage Collection System Owners
and Operators Enrolled Under the State Water
Resources Control Board Order No. 2006-0003-DWQ****Subject: Collection System Preparation for Anticipated 2015-2016 El Nino Rainy
Season**

The Santa Ana Regional Water Quality Control Board (Santa Ana Regional Board) is sending you this courtesy reminder to prepare your sanitary sewer collection system for the 2015-2016 rainy season.

As you know, municipalities and other public entities that own and operate a sewage collection system within the Santa Ana Regional Board jurisdiction (Region) are regulated under the Statewide General Waste Discharge Requirements (WDR) for Sanitary Sewer System, Order No. 2006-0003- DWQ¹ (General Order). The General Order prohibits the discharge of untreated or partially treated wastewater to the waters of the United States. The General Order also requires the development and implementation of sanitary sewer management plans (SSMPs) that contain requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows (SSOs). Proper collection system operation and maintenance includes the periodic or continuing process to identify problems including proactive identification and elimination of inflow and infiltration and structural vulnerabilities to prevent or minimize SSOs during rain events.

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¹ As amended by Order Nos. 2008-0002-EXEC and 2013-0058-EXEC

WILLIAM RUH, CHAIR | KURT V. BERCHTOLD, EXECUTIVE OFFICER

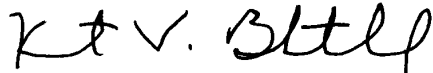
3737 Main St., Suite 500, Riverside, CA 92501 | www.waterboards.ca.gov/santaana

♻️ RECYCLED PAPER

Page 2 of 2

We appreciate your urgent attention in this matter to protect public health and water quality. Should you have any questions or comments please contact the Regional Board staff assigned to your facility in the enclosed list.

Sincerely,

A handwritten signature in black ink that reads "Kurt V. Berchtold". The signature is written in a cursive style with a large, stylized initial "K".

Kurt V. Berchtold
Executive Officer

Enclosure: List of Enrollees under Order No. 2006-0003-DWQ and Regional Board Staff Assignment



QUOTATION
For
Yucaipa Valley Water District
Attn: John Wrobel
Offered by
SmartCover Systems™



Quotation Date: 10/29/2015
Quote Validity: 30 days.
By Brogan Quist, Regional Manager
SmartCover Systems™



Section I: Pricing

SmartCover® Systems™ (SCS) is pleased to provide the following Proposal for **SmartCover®** level and flow-estimating monitoring system. Please find in this document: Pricing Summary as shown in Section 1, a complete System Description in Sections 2-5, Warranty statement in Section 6, and Acceptance in Section 7.

SmartCover® Systems™ 2067 Wineridge Place, Suite E, Escondido, CA, 92029
760-291-1980 www.hadronex.com
Hadronex, Inc. is now doing business as **SmartCover® Systems™**

2



Pricing Summary

Part Number	Description	Unit Qty.	Unit Price (Each)	Extended
SC-Q-S-15	SmartCover® System Components E-Box System Control with onboard computer, modem, digital radio; fully potted and IP-68 rated. Distance Sensing Module (DSM) with 3" to 81" sensor range, with 15' cable. PowerPack® - lithium thionyl chloride battery with high power density. E-Square™ antenna , including antenna and installation kit. Mounting bracket kit - three-part amounting bracket set made of heavy gauge, hard-anodized aluminum; includes all mounting hardware.	9	\$3,746	\$33,714
Parts Warranty	One (1) Year, Parts-Only Warranty Limited Parts-Only Warranty on all system SmartCover® hardware. See Warranty Statement for complete details.	9	Included	Included
ASM-SC1	Active Site Management (ASM), One-Year: Comprehensive support services including: <ul style="list-style-type: none"> • Software subscription with <i>unlimited number of users</i> accessed with secure user name and password • Complete maintenance of all cloud based software • Regular feature updates and upgrades including the all new <i>SmartTrend™</i>. • Hosting of data storage – unlimited data storage • Iridium Satellite connectivity service with bi-directional communication. • Advisories, Maintenance Alerts and Alarms issued to customer defined personnel via email and/or text message • Ongoing technical support via phone or online. 	9	\$364	\$3,276
ASM-RD-1Y	SmartRain Data: Rain Data Integration with SmartCover Unit This data can be overlaid onto 9 SmartCover locations	9	\$96	\$864
IST-1	Dedicated Customer Website: Initial Set Up and Training (IST) <ul style="list-style-type: none"> • Customer Website Set Up and Training • Browser-based, secure user access • Includes map view, site-specific data and information • Alarm and Advisories set-up • Comprehensive training for login, website features and website functions • <i>Note: this is a one-time charge for new customers and does not apply to follow-on orders.</i> 	9	\$899	Included
Labor Tech	Labor Installation of SmartCover Systems	9	\$250	\$2,250
Freight Out	Shipping for 9 SmartCover Systems	9		\$151
Sales Tax	Sales Tax for the City of Yucaipa @ 8%	8%		\$2,697.12
TOTAL	All items above			\$42,952.12

SmartCover® Systems™ 2067 Wineridge Place, Suite E, Escondido, CA, 92029
 760-291-1980 www.hadronex.com
 Hadronex, Inc. is now doing business as SmartCover® Systems™



Delivery

- **Standard: Six (6)** weeks upon receipt of a Purchase Order and with receipt of complete engineering and site information from the customer as requested.
- All customers will be notified of the shipment date upon Order Acknowledgement.
- Actual availability may vary depending on total demand. The "Standard six weeks" is not a guarantee but a good faith estimate. It is strongly recommended that an order be placed as early as possible. Reasonable efforts will be made to provide earlier delivery if requested.

Terms and Conditions

- Payment: Net 30 days
- Late charges: A service charge of 1.5% per month will be added to all balances unpaid 30 days after invoice date. Failure to pay in accordance with these terms may void all warranties.
- Cancellations: for all orders of less than \$10,000, cancellation is accepted prior to shipment. For orders equal to or greater than \$10,000, a 15% restocking charge is applied for cancellation.
- Returns: returns are accepted with a valid Return Material Authorization (RMA) number only.

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4



Ongoing Annual Costs

After the first year of operation, the following fees will provide *continued comprehensive services* including *software support, data storage, upgrades, added features, and satellite connectivity and PowerPack™ Warranty.*

These are *annual charges* paid prior to the start of the year.

Active Site Management (ASM)

ASM-SC1 **\$364**

One-Year software subscription, satellite connectivity, online maintenance, online S/C monitoring per unit per year.

PowerPack Warranty

PowerPack™ Warranty (PW-LTC1): **\$225**

One-Year PARTS-ONLY PowerPack Warranty for each installation site, part-only warranty on the PowerPack™ offering unlimited replacements during the Warranty term.

Extended Part Warranty

Extended Parts Warranty (EW-SC1, Optional): **\$ 399**

One-Year PARTS-ONLY covers: E-Box System Control, Distance Sensing Module (DSM), antenna, and mounting bracket.

This is a PARTS ONLY warranty extension after the first year.

NOTE: Warranty extensions must be for consecutive years. Should a warranty be purchased after any initial year where the warranty was not purchased then the previous year(s) must be additionally purchased.

End Section 1; proceed to Section 2, next page.

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SECTION 2: PRODUCT DESCRIPTION OVERVIEW

Each SmartCover® System includes the following components which comprise the hardware delivered with each system:

- One (1) E-Box system control
- One (1) Ultrasonic Distance Sensing Module (DSM) with connecting cable.
- One (1) communications antenna for direct connection to the Iridium Satellite System.
- One (1) PowerPack™, a proprietary high power density lithium thionyl chloride battery
- One (1) bracket kit for either mounting flat to the underside of the manhole cover or for mounting to the manhole cover vein.
- One installation kit containing all hardware and accessories necessary to mount a single system

Item Descriptions:

E-Box System Control

The E-Box is the system control containing the digital satellite radio, computer and signal processing components. It is fully potted and can be completely submerged in water (IP-68 rated) It is housed in an, ABS enclosure and shock tested to 10 G's.



SmartCover® E Box Control

PowerPack™

The PowerPack™ is a high power-density battery system designed for reliable, consistent delivery of power in the harsh wastewater environment. It housed in a urethane coated pack containing Lithium Thionyl Chloride primary batteries. Typically the PowerPack™ provides at least one year of life and generally longer under normal operating conditions. PowerPacks™ have a 10 year shelf life prior to use.



SmartCover® PowerPack™

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6



Distance Sensing Module (DSM)

The distance sensing module is an ultrasonic distance sensor. It is enclosed and sealed in an ABS housing. It is fully potted and completely water-proof, meeting IP-68 standards. The crystal controlled oscillator sensor is self-calibrating. There are two [distance] ranges available.

- The standard range senses between 3" and 81"
- The long-range sensor's range is 11" to 240".

The DSM has two standard cable lengths of 15' and 25'. Custom lengths are available, application dependent, up to 300'. SCS Application Engineers are available to assist users to determine the correct DSM range and cable lengths.



SmartCover® DSM

E-Series™ Antennae

The E-Series™ antennae include the "E-Square" and the "E-Dot" types. Both are traffic rated and designed to mount directly to the manhole cover or vault lid. They communicate directly to the Iridium Satellite System and do not require any intermediary devices for boosting signals. The antennae are secured to the top of the manhole cover using a high strength, two-part acrylic adhesive specifically designed for high stress, structural applications.

The E-Square antenna is a road-reflector type used in areas where there is no opportunity for dislocation from such hazards as snow plows.

The E-Dot antenna is for cold-weather climates where snow plow operations occur and are designed to be mounted below the manhole profile.



E-Square™ Antenna



E-Dot™ Antenna

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Mounting Bracket Kit

The mounting bracket is a ruggedized, corrosion resistant assembly designed to protect and secure system components. The bracket is secured with two stainless steel bolts whereby the installer drills two 1/4" holes into the cover. The bracket is designed in such a manner such that **NO CONFINED SPACE ENTRY IS REQUIRED FOR INSTALLATION**. Its hard-anodized aluminum housing encloses the PowerPack and the E-Box control. The DSM (distance sensing module) is connected to the E-Box and suspended via a cable, typically over the invert.

The bracket is supplied as a three-piece kit for mounting directly to the underside "flat" of the manhole or, alternately, to the manhole cover vein.



Bracket with kit



Mounted Bracket

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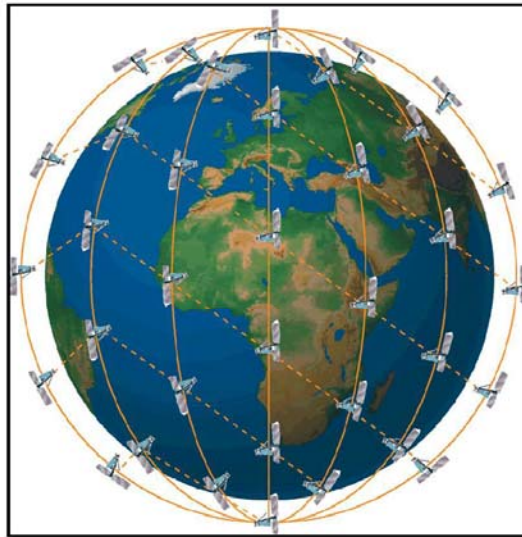


SECTION 3: DESCRIPTION OF THE SATELLITE COMMUNICATION SYSTEM

The SmartCover[®] system uses the high reliability, highly secure *Iridium Satellite System* as its communications backbone. Iridium is a state-of-the-art communications system consisting of 66 Low Earth Orbiting (LEO) satellites. It has global, redundant coverage and is known to provide highly superior connectivity to that of terrestrial systems such as GSM, GPRS and other cell phone based systems. Iridium has a very strong record of performance and reliability. It is used by the US DOD for its reliability.

Iridium Satellites are in orbit across the globe and assured connectivity is achieved requiring but a small fraction of the available horizon. SmartCover[®] systems are able to communicate in challenging locations with such impediments as tree canopies, overpasses or buildings.

SmartCover[®] data is highly secure with servers using 2048 bit encryption. These are redundant servers located in a climate controlled; secure facility with emergency power to prevent any interruptions. Servers store Historical Communication, Data, and Data Access information. Being a web or "cloud" based system; data is available at all times through a browser from a computer, tablet or phone. Users can access data through any web browser to the server via encrypted data and send notifications directly to the user.



Iridium Satellite Constellation

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9

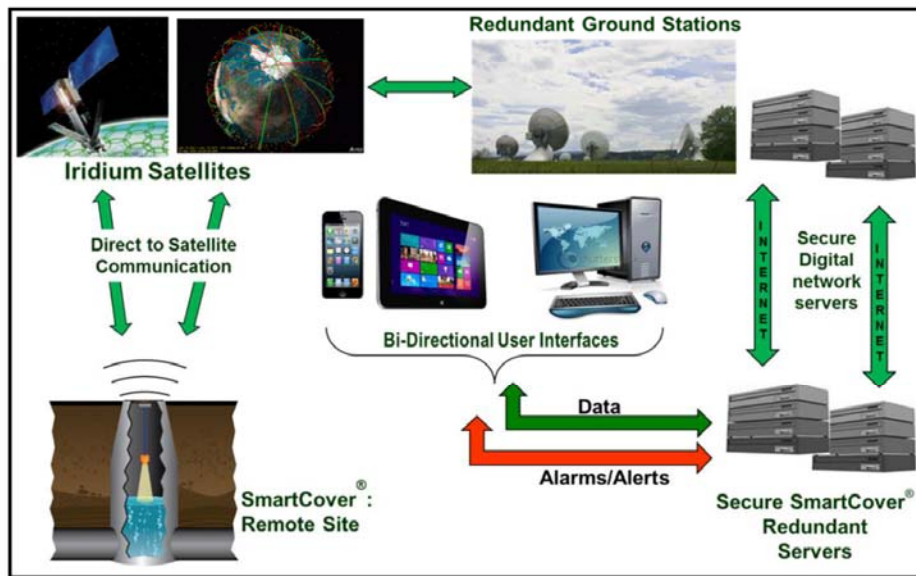


The Communication Process

As per the diagram below, the SmartCover® system communicates directly to an orbiting satellite. The communication signals are then sent to Iridium earth link stations, and then to SCS secure servers.

For alarm signals, they are subsequently sent to the Customer via cell phone, Smart Phone, digital pager and/or to computers via the internet. It is possible to have alarms sent to a central control room as well.

SmartCover® communication is *bi-directional* and the user has control over the remote sites. A major benefit of the SCS system is that data acquisition, alarms and system setting changes are enabled *remote from the installation* site saving time and resources. For example, the alarm level [distance] setting can be accessed via the Dedicated User Website to be changed or disabled. Changes to these settings are communicated from the SCS servers through the Iridium system and to the SmartCover® system at the designated site.



SmartCover® communications system diagram

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SmartCover® Measurement, Data Acquisition, Transmission and Process Overview

The SmartCover® system monitors continuously 24 hours per day, seven (7) days per week. SCS has cumulatively acquired thousands of years of data and experience with this basic measurement protocol to assure users that this methodology is extremely sound and reliable for ongoing data acquisition and alarming functions.

Measurement Frequency

The SmartCover® system takes a measurement every six (6) minutes. If the measured level is below the pre-set alarm level then the cycle begins again.

Data Acquisition Frequency

The SmartCover® logs alternate readings of the six (6) minute measurement cycle. In other words it log a measurement every 12 minutes, five (5) times per hour. These readings are “batched” and sent once per hour via satellite to the server and stored for user access such as trending and analysis.

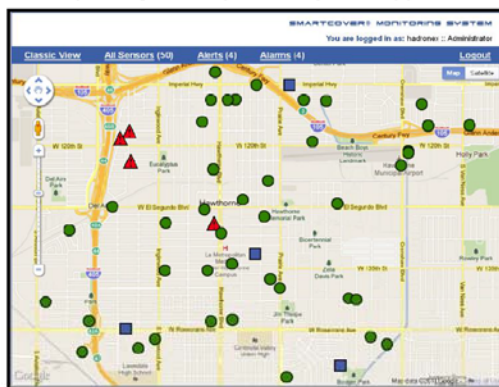
Alarming

If the SmartCover® system measures and senses that the water it is *above* the alarm level, an alarm notification is sent to the designated users and by a pre-established communication protocol i.e., text message to a mobile device or an email message to a computer. Alarms through cell phones or pagers are via Short Message Service (SMS), or Smart Phones and emails via email messaging. Alarms will continue to be sent until acknowledged. The system will continue to monitor, even though the alarm has been acknowledged. Note: a dedicated direct-from-satellite handheld system is available option for highly critical communications. Contact SCS for more information.

A LEVEL MEASUREMENT IS TAKEN EVERY 6 MINUTES AND DATA IS UPDATED ON THE SERVER EVERY HOUR. IN THE EVENT OF A HIGH WATER EVENT, THE ALARM IS SENT THE NEXT TIME A LEVEL MEASUREMENT IS MADE. THE LONGEST TIME BETWEEN THE TIME THE WATER REACHES THE ALARM LEVEL, AND WHEN THE ALARM SOUNDS IS 5 MINUTES AND 59 SECONDS.

Graphical Data

The website is accessed by designated users through a secure portal and using a user name and password. Upon login a map of the system appears as shown below.



System Map

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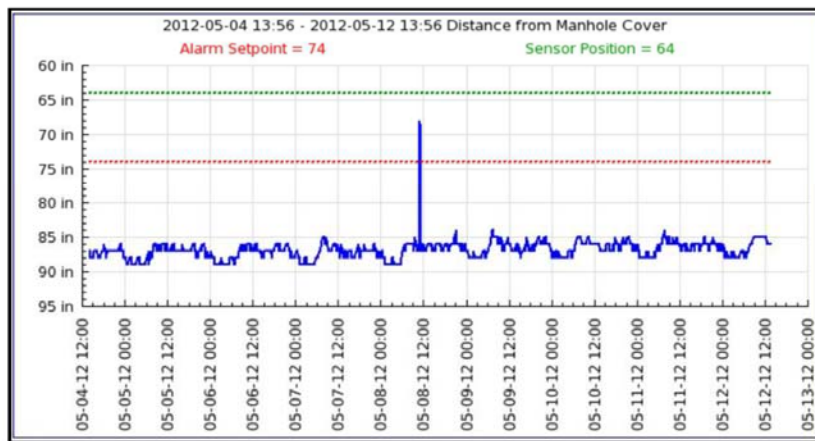
System Map

The system map has five, colored-coded symbols for ease of viewing and management where:

- GREEN (circle)** – Indicates that the SmartCover® system is functioning properly and that the site does not have any alarms or maintenance alerts.
- GRAY (circle)** – Indicates that the SmartCover® system was previously located at this site but has been moved. The data for this site is archived and accessible.
- ORANGE (circle)** – Indicates that the SmartCover® system, while not in an Alert or Alert state, has issued an “Advisory”. The Advisory is an email message has been sent because the site data trend indicates that an anomaly is occurring. It advises users to view this site’s data and determine what, if any, remedial action should be taken.
- BLUE (square)** – Indicates an “alert” and that a SmartCover® maintenance action is required. For example, it could mean the battery has low voltage and needs to be replaced or that a unit has not communicated within the expected interval.
- RED (triangle)** – Indicates that an “alarm” condition exists at this location. It could be high water event (surcharge) or an intrusion. Action is required.

Site Graph

A user may access any remote site by clicking on the map or on the address location. As an example, the graph below illustrates level in inches (y-axis), date/time (x-axis), flow levels (blue line), and the alarm setting (red line). We see in this case flow levels are below the alarm and then followed by a surcharge. The surcharge would have triggered an alarm. Note that the alarm is set well below the level where a spill may occur (green line) and allows for sufficient time to respond. In this case the bottom of the sensor is 64 inches from the manhole cover and the alarm is set for 74 inches below the manhole cover.



Site Graph

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SECTION 4: INSTALLATION AND ACTIVATION

Installation

It is most important to note that the SmartCover installation never requires confined space entry. With this, a typical installation is inexpensive and takes much less than one hour for physically attaching of the SmartCover® system. The antenna is mounted to the top of the cover or lid and the mounting bracket, housing the PowerPack and E-Box with the DSM connected to the E-Box, to the bottom.

The antenna is mounted and secured with a high strength, MIL-Spec grade, two part adhesive and a hole is drilled to feed the antenna wire to the underside where the E-Box control is located.

The bracket is mounted to the underside by drilling to two holes into the cover or lid. Two stainless steel screws secure the bracket. The DSM is connected to the E-Box control and it is suspended and aligned to the flow target area i.e., the invert.

On-site testing of the communication link is performed to ensure that the unit is operational.

- **Standard Installation:** The SmartCover® system (hardware) is installed in the field at the designated site.
- **Offsite Installation:** The SmartCover® system is installed on the selected cover at an offsite facility and transported to the designated location. This method can minimize onsite time to a few minutes reducing the need for traffic control and disruption.
- Typically, the Customer will provide personnel and equipment, as appropriate for traffic control as required by local regulations and safety of field personnel.

Activation

After the physical installation of the SmartCover® system(s), the following actions are taken to bring full functionality to the SmartCover® system. SCS technicians will assist with all installation activation as part of our standard service protocol.

- **SmartCover® Activation: Customer Actions**
 - Upon receipt of a Purchase Order, SCS the user will receive a questionnaire to obtain the information necessary to perform the SmartCover® service Set-Up. Proper system operation is dependent upon receipt of required information.
 - This information is used as part of installation where communication will be tested to verify functionality.
- **SmartCover® Activation: SCS Actions**
 - At the SCS technical Support offices, the secure Customer Web Site is set up including a private account and database on the SCS secure server.
 - Web site is configured for the Customer Web Site with SmartCover® system locations and users.
 - Initial population of the Customer SmartCover® database.
 - Registration of the SmartCover® system wireless radios with the network and setting the Customer default system operational parameters.

Training

Training is provided after completion of the installation process. Once on-site personnel are trained, SCS will be available to provide additional web site training remotely after the SmartCover® system has been installed and operational.

13

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SECTION 5: ACTIVE SITE MANAGEMENT

Active Site Management (ASM) is a **compressive support service** for the SmartCover[®] system. It includes software support, satellite connectivity and ongoing technical support with these three elements described below.

It is an annual, per site service provided by SCS. ASM includes but is not limited to:

- **Website hosting**- initial set-up and ongoing hosting of all software and customer data. Note that all data is owned by the customer.
- **Website / Software Upgrades**- from time to time SCS provides new features and tools at no charge including such features supporting improved analytical tools, improved graphical tools and new reports.
- **Website maintenance** – maintaining the secure servers on which your web site resides, and providing free upgrades to the web sites as they become available.
- **Standard Reports** - SCS will support Customer in the preparation of these reports for management or regulators **Technical Telephone Support** - This service is offered by the SCS Technical Services team from 7am to 5 pm Pacific time and with additional support from local representatives.
- **Management Oversight**
 - SCS Technical Services team monitors the proper operation of all installed systems including battery voltage, the radio signal strength and the communication to/from the systems.
 - SCS coordinates the appropriate service to repair any components in the field with you or the local dealer
- **Alarm Processing** – maintaining the infrastructure of the alarm contact system.
- **After Hours Support** – on an as-needed basis. Contact SCS for details
- **Wireless Communications Connectivity** – Access to the two-way, wireless satellite network.

Product Improvements

The SmartCover[®] is continuously improving, adding new features and functions. SCS often uses customer input to add new features. Product improvements are backwards compatible to existing satellite systems with 0.10" resolution. There is no charge for these improvements as they are part of the annual ASM.

SmartTrend™

SmartTrend™ is an all-new addition to **SmartCover[®]** that enables notifies and enable users to anticipate events at remote monitoring sites. **SmartTrend™** automatically scans each remote site to assess data trends. Should it see an "anomaly", it provides users an Advisory email message. This important addition to the **SmartCover[®]** system means that users now have the most advanced predictive method available identifying future issues such as SSO days or even weeks *before they occur*.

14

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SECTION 6: ADDITIONAL TERMS & CONDITIONS, LIMITED WARRANTY

Mutual Hold Harmless

SCS hereby holds Customer harmless from any and all claims that may arise, or damages that may result, to SCS or SCS staff during the performance of this contract. Customer hereby holds harmless SCS, its founders, owners and staff, from any and all claims that may arise, of any kind or from any cause whatsoever, due to or as a result of the installation, operation, or use of the SmartCover[®] system.

Loss of Communications

Customer acknowledges that SCS is not responsible for the loss of wireless communication or internet communications or any communications used in the operation of this system.

Advisory Only

The SmartCover[®] System is an advisory service only. As such, SCS and its founders, owners, or staff are not responsible for any damage of any kind or from any cause whatsoever that may result from, in relation to, in connection with, due to, or as a result of the installation or operation of the system, including without limitation, equipment failure, or any consequential damages caused by, or resulting from, the use or installation of the SmartCover[®] system.

Limited Warranty

The equipment components of the SmartCover[®] system are warranted free from material defects of material and workmanship for a period of one year from the date of installation. Unless otherwise stated, the SCS warranty herein is a parts-only warranty.

Should the Customer discover any condition that might invoke a warranty claim, they are to expeditiously and without delay notify the SCS Technical Services group.

Upon notification, SCS will assess and instruct the user on follow-on actions.

Should a component fail as a result of a defect in material or workmanship, SCS will replace the component or repair it at the SCS location.

For all valid warranty claims, as determined by SCS, reasonable freight charges to and from Customer shall be paid by SCS. In all cases, SCS shall determine the shipping method and/or carrier unless otherwise agreed to in writing by Customer and SCS.

Upon approval of a warranty failure by SCS, SCS will either repair or replace the defective component at SCS' sole discretion.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). REPAIR OR REPLACEMENT IN THE MANNER PROVIDED ABOVE SHALL BE THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF WARRANTY AND SHALL CONSTITUTE FULFILLMENT OF ALL LIABILITIES OF SCS WITH RESPECT TO THE QUALITY AND PERFORMANCE OF THE PRODUCTS.

THIS WARRANTY DOES NOT COVER DAMAGE OR REPAIRS OR REPLACEMENTS BY ANY CAUSE BEYOND THE CONTROL OF SCS, INCLUDING ACTS OF NATURE, IMPROPER USE, LACK OF PROPER MAINTENANCE OR UNAUTHORIZED REPAIR.

REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY. SCS SHALL NOT BE LIABLE FOR ANY ACTUAL, EXEMPLARY, INDIRECT OR CONSEQUENTIAL DAMAGES, INCLUDING DAMAGES FOR LOSS OF GOODWILL OR PROFITS AND/OR LOSSES FROM ANY CAUSE WHATSOEVER, EVEN IF SCS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

15

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In no event shall SCS's liability, whether in contract or in tort (including negligence and strict liability), exceed the price of the Product from which such liability arises.

SECTION 7: Acceptance

The undersigned have read and acknowledge their understanding of this offer.

Signatures

SmartCover® Systems™

**Yucaipa Valley Water District
John Wrobel**

Brogan Quist

Regional Manager

Signature

Date: 10/29/2015

Date

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Date: November 4, 2015

Prepared By: John Hull, Public Works Manager

Subject: Authorization to Install a Fuel Automation System for the District Fleet of Vehicles and Construction Equipment

Recommendation: That the Board authorizes the District staff to execute Quotation No. 15-3156s-R1 for a sum not to exceed \$33,312.96 and Quotation No. 15-3171s for a sum not to exceed \$11,998.36.

Over the past five years, the District has expanded our fleet of vehicles and construction equipment with the purchase of sixteen new vehicles. The District staff has been reviewing fleet management technology to provide maintenance information and usage data so the fleet can be efficiently and effectively maintained.

The District has identified equipment provided by FuelMaster as a potential solution to help maintain our investment in vehicles and equipment.

The FuelMaster system uses radio frequency identification tags (RFID) that will eliminate inaccurate driver-entered data from the fueling and data collection process. The odometer or chronometer data, along with other information is automatically collected by the fuel management unit. An Automotive Information Module is connected directly to a vehicle's OBD port, and collects vital information, and then sends it to the fuel management unit during fueling operations. Based on odometer/hour readings, the system calculates vehicle efficiency and fuel consumption and provides alerts for maintenance requirements.



Each year the District purchases about \$150,000 of fuel for the District's vehicles and equipment. This expense varies with the price of unleaded and diesel fuel. The District staff included information about a tank monitoring system to further reconcile the usage of petrol from the fuel storage tanks.

Fiscal Considerations

Funds for this effort will be allocated 80% from Water Division, Asset Acquisition, Administration (02-5-40-57006) and 20% from Sewer Division, Asset Acquisition, Administration (03-5-40-57006) for the Fiscal Year 2016 Budget.



FUELMASTER

ENGINEERED BY Syntech



Leading the Way in Automated Fuel Management Technology

FUELMASTER's® AIM2.4™ technology is without a doubt the leader in automated fuel management. AIM2.4 is a passive system that eliminates inaccurate driver-entered data from the fueling and data collection process. Our AIM module connects directly to a vehicle's OBD port in order to collect vital information that a fleet manager requires. Using this patented technology prohibits fuel going into unauthorized vehicles or containers. In response to demand for a module that can operate in a rugged environment, Syn-Tech's engineers developed the AIM2.4HD™. It is designed specifically for extreme conditions such as those found at hydraulic fracturing sites and in mining operations. There are more AIM modules installed on equipment in North America than any other competitor's passive system. Tens of thousands of AIM units have been installed on U.S. military equipment, as well as on public and private sector fleets. There are two major reasons organizations select **FUELMASTER**; it works and our nationwide support network helps the customer keep it working.

The AIM reports the following extended OBD data, but availability varies between light and heavy duty vehicles:

- Odometer
- Engine Run /Idle/PTO Engage Time
- Diagnostic Trouble Codes
- Check Engine Light Status
- Max Vehicle/Engine Speed
- Min/Max Battery Voltage
- Current Fuel/Coolant/Washer Fluid Level
- Current Transmission/Engine Oil Level
- Min Engine Oil Pressure
- Max Engine Oil Temperature
- Min Transmission Oil Pressure
- Max Coolant Temperature

Our patented AIM module takes the driver out of the data collection process.



1. The driver inserts the fuel nozzle and the AIM module reads the RFID tag on the nozzle.



2. The module transmits the tag ID and vehicle data to the Fuel Management Unit (FMU). The FMU activates the dispenser.



3. The FMU receives the data and records the transaction. The transaction ends when the nozzle is removed.

Contact your **FUELMASTER**® representative today to learn more.

SYN-TECH SYSTEMS, INC.
 100 Four Points Way, Tallahassee, FL 32305
 (800) 888-9136 • marketing@myfuelmaster.com





Syn-Tech recognized a need for a ruggedized AIM for installation on the heavy equipment found in mining and fracking operations. Frequently AIMs used in these industries will not have the protection provided by a vehicle cab, but will be installed outside in severe weather conditions. Consequently, Syn-Tech's engineers designed the AIM2.4HD™ which comes with weatherproof connectors and cables, as well as a stronger housing. Both the AIM2.4HD and the AIM2.4™ can be purchased with an external antenna to permit RF transmission around obstacles.

All components of AIM2.4HD are submersible up to one meter according to IP67 and NEMA 6. The connectors used on this device actually exceed these requirements per IEC 60529 and DIN 400-50-9. This additional protection makes the AIM2.4HD the perfect equipment for applications in extremely harsh environments such as the agriculture, mining, aggregates and fracking industries.

AIM2.4™ / AIM2.4HD™ Technical Specs

ENVIRONMENTAL	<ul style="list-style-type: none"> • Temperature Rating: -20°C to 85°C
CERTIFICATIONS	<ul style="list-style-type: none"> • Certified to SAE J1455 JAN2011 – <i>Recommended Environmental Practices for Electronic Equipment Design in Heavy-Duty Vehicle Applications</i> <ul style="list-style-type: none"> – 4.1.3.1 Temperature Cycling – 4.1.3.2 Thermal Shock – 4.1.3.3 Thermal Stress – 4.10.4.2 Mechanical Vibration – 4.11.3.4 Mechanical Shock • ETL listed to meet: <ul style="list-style-type: none"> – UL 913 <i>Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations</i> – UL 1238 <i>Control Equipment for Use with Flammable Liquid Dispensing Devices</i> • FCC ID: TFB-FREESTAR3 • IC: 5969A-FREESTAR3
ELECTRICAL	<ul style="list-style-type: none"> • Input voltage range: 12-42VDC • Current draw: Max: 150mA, Typical: 100mA, Power save: 25-45mA • Analog chronometer input range: 4-42VDC
WIRELESS SPECIFICATIONS	<ul style="list-style-type: none"> • 2.4GHz ISM band • Direct Sequence Spread Spectrum (DSSS) • 100 mW max output
OBD STANDARDS SUPPORTED	<ul style="list-style-type: none"> • Light duty: ISO 15765 (CAN), ISO 9141, J1850, J1979 • Heavy duty: J1939, J1708/J1587
ADDITIONAL FEATURES	<ul style="list-style-type: none"> • Tracks the odometer via the OBD port or vehicle speed sensor • Reports up to 18 different OBD parameters. Examples include max vehicle speed, current oil level, minimum oil pressure and check engine light status • Captures all engine trouble codes via the OBD port (supports J2012, J1587 and J1939) • Tracks up to three chronometers simultaneously (via OBD or analog inputs) <p>Examples include:</p> <ul style="list-style-type: none"> – Idle time – Engine run time – PTO time • Supports up to two tanks with a single AIM



800-581-3710 service@fuelservinc.com

Quotation

Date	Quote No.
10/7/2015	15-3156s-R1

Quoted to:

YUCAIPA VALLEY WATER DISTRICT
 P.O.Box 730
 Yucaipa, CA 92399-0730

Location

VALLEY WATER DISTRICT
 12770 Second St.
 Yucaipa, CA 92399-0730

Payment Terms	Good Thru	Project
Net 15	10/7/2015	FUEL MASTER INSTALL

Description	Total
SCOPE OF WORK: Install (1) Fuel Master system to include (1) pedestal, Software, (1) encoder, (50) keys and (1) AIM module. New aboveground conduit will be installed as needed to power up FMU and control (2) Unleaded pump and (1) Diesel pump. New pump pulsars will be supplied and installed and wire ran to the FMU as needed. The Customer will be responsible for supplying a WiFi receiver compatible with their existing system, to be installed at the FMU.	
NOTE: The AIM (automotive information modules) units and install are a per unit price with only one unit and one install included in this quote.	
FUEL MASTER PARTS (see attached list)	12,347.65T
FMU SOFTWARE AND PEDESTAL INSTALL	2,500.00
PULSARS, FITTINGS, CONDUIT, WIRE AND LABOR	3,250.00
(35) AIM UNIT INSTALL (minimum 5 per day per tech) \$150 each	5,250.00
(35) AIM UNITS \$237.50 each	8,312.50T
San Bernardino County Sales Tax	1,652.81

Sign and Return Quote to Commence Work

Total \$33,312.96

Print _____

Purchase Order _____

Signature _____

Date _____



PROTEUS[®] Automatic Tank Gauging and Leak Detection System

Part Number: OEL8000III-K4
OEL8000III-K8



Description

A brighter future in tank gauging and leak detection has arrived with the **PROTEUS** Series. Featuring advanced technology, versatility, scalability, and enhanced features like our 7 inch color touch screen. The **PROTEUS** Series can simultaneously monitor product levels, water levels, temperature, leaks, and much more. The flexibility of **PROTEUS** makes it ideal for a variety of gauging and leak detection applications.

The OEL8000III-K accepts up to 16 of OMNTEC's Bright Eye (BX Series) sensors for distinguishing product from water or for simply detecting the presence of liquid. A distinct advantage of Bright Eye sensors is they are networked and utilize 4 wire bus technology.

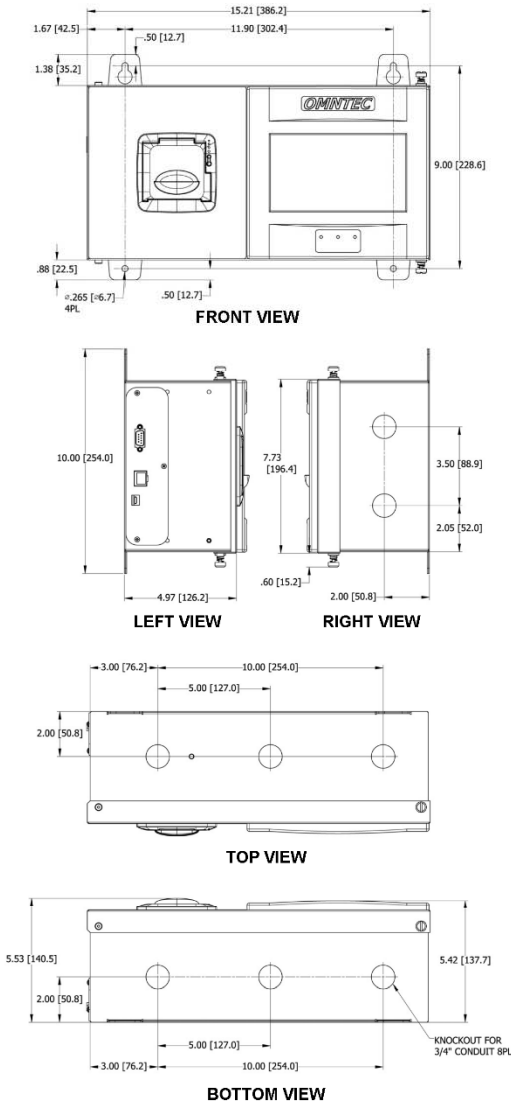
PROTEUS does not require sensor or probe input modules, bringing ease to ordering and installation. A built in microprocessor gives each sensor the ability to identify itself and its location, which is displayed along with alarm conditions on the **PROTEUS's** 7 inch color touch screen graphic display.

With OMNTEC's proven reliability, the **PROTEUS** offers an attractive, comprehensive, and user-friendly system that can open doors to endless possibilities.

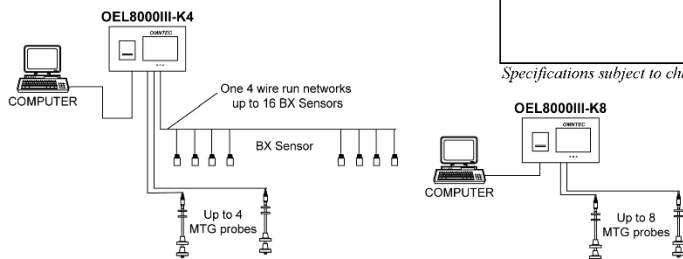
Features

- Accepts up to 8 magnetostrictive probes
- Accepts up to 16 Bright Eye sensors
- Sensors networked using state of the art 4 wire bus technology
- 2 RS-232 ports
- 1 Micro USB port
- SD memory card slot
- 7 inch color touch screen graphic display
- CITLD upgradeable
- Modbus upgradeable
- E-mail capability standard
- Built in web server
- SIL rated operating system
- Compact size
- Remote display option
- Thermal printer option
- VLD standard
- 3 programmable relays
- Ethernet / TCP/IP standard

PROTEUS®
Automatic Tank Gauging and
Leak Detection System
Part No. OEL8000III-K4 & OEL8000III-K8



OEL8000III-K Application



Specifications																															
Optional Features:	36-character thermal printer Modbus CTLD upgradeable OMNTEC PC software																														
Input Power:	100-240 VAC +/- 10% 50/60 Hz 60 watts																														
Voltage to Sensors:	12 VDC																														
Voltage to Probes:	28 VDC																														
Audio Visual Controls:	Color 7 inch graphic display with touch screen																														
Display:	85 dB piezoelectric horn																														
Audible alarm:	36-character thermal																														
Printer:	3 LED's (OK, Warning, Alarm)																														
System status:																															
Relay Outputs:	120 VAC @ .6 amp resistive 3 SPST Failsafe																														
Low-voltage Outputs:	12 VDC @ 150 mA																														
Operating Temperature:	20 to 140° F (-7° to 60° C)																														
Compatible Sensors:	BX-Series sensors (refer to document no. 900106)																														
BX-Series Sensor Cable:	Shielded 22 AWG with drain wire (OMNTEC EC-4), Maximum length 2,000 feet (610m)																														
Compatible Probes:	Rigid Gauging Probe (refer to document no. 900194) MTG-4* (1219mm) MTG-6* (1829mm) MTG-8* (2438mm) MTG-10* (3048mm) Flexible Fixed Top Probe (refer to document no. 900166) MTG-F-* Series Flexible Fixed Bottom Probe (refer to document no. 900162) MTG-FB-* Series *Number signifies shaft length and corresponds to tank diameter. Contact representative for additional lengths.																														
MTG Probe Cable:	OMNTEC EC-2 (Shielded Belden #8761) Low Inductance: equal or less than .2 microhenries per foot. Maximum length 1,000 feet (305m) Consult representative for longer wire runs.																														
Accessories:	PROTEUS-R Remote display RAS Series Remote annunciators PS-103 Thermal printer DPU-C Thermal paper																														
Weight:	20 lb. (9kg)																														
Dimensions:	(h) 7.73" (w) 15.21" (d) 5.53"																														
Approvals:	UL-listed & CUL-listed IECEx UL 13.0057X [Ex ia Ga] IIB CE 0539 [Ex ia] IIB DEMKO 13 ATEX 1341071X																														
Version Summary:	<table border="1"> <thead> <tr> <th>Version</th> <th>Probes</th> <th>Sensors</th> <th>Audio/ Visual</th> <th>Relays</th> <th>Communication</th> </tr> </thead> <tbody> <tr> <td>K4</td> <td>4</td> <td>16</td> <td>yes</td> <td>3</td> <td>(2) RS-232 (1) TCP/IP</td> </tr> <tr> <td>K8</td> <td>8</td> <td>0</td> <td>yes</td> <td>3</td> <td>(1) Micro USB</td> </tr> <tr> <td>K4B</td> <td>4</td> <td>16</td> <td>no</td> <td>3</td> <td>(1) Expansion Port</td> </tr> <tr> <td>K8B</td> <td>8</td> <td>0</td> <td>no</td> <td>3</td> <td>(1) SD Card slot</td> </tr> </tbody> </table>	Version	Probes	Sensors	Audio/ Visual	Relays	Communication	K4	4	16	yes	3	(2) RS-232 (1) TCP/IP	K8	8	0	yes	3	(1) Micro USB	K4B	4	16	no	3	(1) Expansion Port	K8B	8	0	no	3	(1) SD Card slot
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K8B	8	0	no	3	(1) SD Card slot																										

Specifications subject to change without notice, verify with manufacturer.

OMNTEC®
 1993 Pond Road
 Ronkonkoma, NY 11779
 Phone: (631) 981-2001
 Fax: (631) 981-2007
 E-mail: omntec@omntec.com
 Website: www.omntec.com
 Document No. DS00014 DS00015 rev1335.doc
 Rev Date: 8-27-2013



800-581-3710 service@fuelservinc.com

Quotation

Date	Quote No.
10/6/2015	15-3171s

Quoted to:
NEW CUSTOMER

Location
YUCAIPA VALLEY WATER

Payment Terms	Good Thru	Project
Net 0 / Immediate	10/6/2015	TANK MONITOR INSTALL

Description	Total
SCOPE OF WORK: Supply and install (1) Omntec Proteus K4 tank gauging controller with (2) probes, (2) float kits & (1) fiberglass enclosure. Aboveground conduit and wiring will be installed as needed. TMU interface kit will be installed into Fuel Master for reconciliation. The tank monitor will be installed at the Unleaded tank near the FMU.	
NOTE: Customer will need to install (1) conduit from diesel tank to the unleaded tank for needed connection to probe in diesel tank.	
NOTE: Each tank will need at least (1) 2" or 4" bung available.	
TOTAL PARTS	8,142.00T
FREIGHT CHARGES	75.00
TOTAL LABOR & EQUIPMENT	3,130.00
San Bernardino County Sales Tax	651.36
Sign and Return Quote to Commence Work	
Total	\$11,998.36

Print _____
Signature _____

Purchase Order _____
Date _____



Date: November 4, 2015

Prepared By: Brent Anton, Engineering Manager

Subject: Change Order No. 1 and Notice of Completion for the Construction Contract with Borden Excavating, Inc. for the Cedar Avenue, Adams Street, Adams Court and Comberton Street Replacement Pipelines

Recommendation: That the Board approves Change Order No. 1 and authorizes the filing of the Notice of Completion and release of the retention amount of \$20,212.50 thirty-five days after the recorded date.

At the regular meeting on July 15, 2015, the Board awarded a construction contract to Borden Excavating, Inc. for a sum not to exceed \$507,000 for the construction of an 8-inch drinking water replacement pipeline in Cedar Avenue, Adams Street, Adams Court and Comberton Street [Director Memorandum No. 15-069].

Change Order No. 1 is a decrease of \$102,750 due to the reduction in base paving, the elimination of paving overlay (pending agreement with the City of Yucaipa) and reduced reimbursement for City fees.

	Contract Changes	Contract Amount	Percentage Change from Original Bid Amount	Reference
Original Bid Amount		\$507,000.00	- -	DM 15-069
Change Order No. 1	\$102,750.00	\$404,250.00	20.3% decrease	DM 15-0xx

The project is now complete and based on the letter from Krieger & Stewart; District staff recommends that the Board approves Change Order No. 1 and authorizes the filing of the Notice of Completion and release of the retention amount of \$20,212.50 thirty-five days after the recorded date.

Financial Considerations:

Funding for this project will be from water depreciation reserves.

C.O. NO. 1

PAGE 1 OF 2

CONTRACT CHANGE ORDER NO. 1

CONTRACT Cedar Avenue, Adams Street, and Comberton Street Replacement Pipelines
 DATED July 15, 2015 BY AND BETWEEN Yucaipa Valley Water District (OWNER), and
Borden Excavating, Inc. (CONTRACTOR), is hereby directed to make the following change(s) in
 Contract Work:

ITEM NO.	DESCRIPTION OF CHANGE	DECREASE \$	INCREASE \$
1	Reduce base paving and eliminate paving overlay.	\$95,750.00	
2	Reduce reimbursement for City fees.	\$7,000.00	

Total DECREASE in Contract Amount	<u>(\$102,750.00)</u>
Total INCREASE in Contract Amount	<u>\$0.00</u>
Net change in Contract Amount	<u>(\$102,750.00)</u>
Contract Amount Prior to Change	<u>\$507,000.00</u>
Contract Amount Adjusted for Change	<u>\$404,250.00</u>

Rev 0614
 Cedar Avenue, Adams Street, and Comberton Street
 Replacement Pipelines

Change Order Form S-1

CONTRACT CHANGE ORDER NO. 1

PAGE 2 OF 2

By reason of Change Order No. 1 , time of completion shall be adjusted as follows:

 0 Working Days. Adjusted Contract Completion Date shall be October 15, 2015.

All provisions of the Contract shall apply hereto, and shall become effective when fully executed (signed and dated) by both parties.

Recommended by (Engineer) Patrice M. Watson Date: 10-8-15

Accepted by (Contractor) [Signature] Date: 10-26-15

Approved by (Owner) _____ Date: _____

Remarks _____



October 27, 2015

818-85.1 F/C

Brent Anton
 Yucaipa Valley Water District
 P.O. Box 730
 Yucaipa, CA 92399

Subject: Cedar Avenue, Adams Street, and Comberton Street Replacement Pipelines
 Recommendation of Acceptance of Contract Work

Dear Mr. Anton:

All work required to be performed by Borden Excavating, Inc for the Cedar Avenue, Adams Street, and Comberton Street Replacement Pipelines Project is essentially complete and the final Contract Amount for same is set forth as follows:

Original Contract Amount:	\$507,000.00
Contract Change Order No. 1:	<u>(\$102,750.00)</u>
Final Contract Amount:	\$404,250.00

Since the Contract Work has been essentially completed in accordance with the Contract Documents, we recommend the District accept said Work. Subsequent to Board acceptance, a Notice of Completion should be filed and thereafter, following the lien period, the District should make final payment (i.e. release retained amount), provided no Stop Notices have been filed.

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/blt
 818-85-RECACCEPT

cc: Linda Kilday, Yucaipa Valley Water District

Record Without Fee
Per Govt. Code 6103

Recording Requested By:
Yucaipa Valley Water District

And When Recorded Mail To:
Yucaipa Valley Water District
P.O. Box 730
Yucaipa, CA 92399

SPACE ABOVE THIS LINE FOR RECORDERS USE

NOTICE OF COMPLETION

Project Number/CMMS Number: P-Q2-282
Director Memorandum Number for Authorization: DM 15-069
Director Memorandum Number for Notice of Completion: DM 15-XXX

Notice pursuant to Civil Code Section 3093, must be filed within 10 days after completion.
Notice is hereby given that:

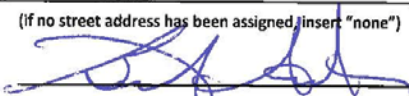
1. The undersigned is owner or corporate officer of the owner of the interest in the property hereinafter described:
2. The full name of the owner is Yucaipa Valley Water District
3. The full address of the owner is 12770 Second Street, Yucaipa, CA 92399
4. The Nature of the Interest or Estate of the Undersigned is: In Fee
5. A work performed hereinafter described was completed on October 27, 2015. The work done was: Cedar Street, Adams Street and Comberton Replacement Pipelines
6. The name of the contractor for such work was: Borden Excavating, Inc.

July 15, 2015
(Date of Contract)

7. The property on which said work was complete in the City of Yucaipa
County of San Bernardino, State of CA, and is described as APN: NONE
8. The street address of said property is NONE

(if no street address has been assigned, insert "none")

Dated October 27, 2015


Brent Anton, Engineering Manager
Yucaipa Valley Water District

Verification

I, the undersigned, say: I am the General Manager of the Declarant of the foregoing Notice of Completion; I have read said Notice of Completion and know the comments thereof; the same is true to my knowledge. I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 4, 2015 at Yucaipa, CA.

Joseph B. Zoba, General Manager
Yucaipa Valley Water District

RECEIVED
 OCT 10 2015
**YUCAIPA VALLEY
 WATER DISTRICT**

Project # *02-282*

Yucaipa Valley Water District
 P.O. Box 730
 Yucaipa, CA 92399
 (909) 797-5118

PARTIAL PAYMENT ESTIMATE # 2 *Retention*

Name of Contractor: Borden Excavating

Name of Owner: Yucaipa Valley Water District

Date of Completion: Original October 26, 2015
Revised

Amount of Contract: Original \$507,000.00
Revised

Date of Estimate: From 8/3/15
To 8/10/15

Description of Job:

8th Street and Washington Drive Replacement Pipelines

Item #	Description	Contract Items			This Period		Total To Date	
		Quantity	Unit Price	Total	Quantity	Amount	Quantity	Amount
101	Contract bonds, insurance and permits not to exceed 3% of bid amount.	1	\$ 10,000	\$ 10,000	0.00	\$0	1.00	\$10,000
102	\$10,000 allowance for City permits and inspection.	1	\$ 10,000	\$ 10,000	0.00	\$0	0.30	\$3,000
103	Mobilization of equipment, materials, and labor (not to exceed 3% of bid amount).	1	\$ 2,140	\$ 2,140	0.00	\$0	1.00	\$2,140
104	State required line item for Sections 6705 and 6707, excavation safety measures.	1	\$ 1,000	\$ 1,000	0.00	\$0	1.00	\$1,000
105	Furnish traffic control, including traffic control plans for approval, furnishing all signs, delineators, arrowboards, and flagmen in accordance with permits.	1	\$ 500	\$ 500	0.00	\$0	1.00	\$500
106	Furnish and install 8" cement mortar lined potable ductile iron pipe, Class 350, polyethylene encased, including export of native material, import of backfill material, compaction, and testing (Stations 6+78.2 to 27+00.2, 30+00.00 to 31+70.00, 40+00.00 to 44+98.72, and 50+00.00 to 51+03.22).	2505	\$ 52	\$ 130,260	0.00	\$0	2505.00	\$130,260
107	Install 8" pipe at flowline depth between 1.1' and 2.0' deeper than shown on plans (the incremental cost difference over Bid Item No. 106).	300	\$ 1	\$ 300	0.00	\$0	300.00	\$300
108	Install 8" pipe at flowline depth between 2.1' and 3.0' deeper than shown on plans (the incremental cost difference over Bid Item No. 106).	100	\$ 1	\$ 100	0.00	\$0	100.00	\$100
109	Furnish and install 8" diameter gate valve per YVWD Standard Drawing W-20.	16	\$ 2,000	\$ 32,000	0.00	\$0	16.00	\$32,000

Cedar Avenue, Adams Street and Comberton Street Replacement Pipelines
 September 2015

Payment Form Q-1

Project #

Yucaipa Valley Water District
 P.O. Box 730
 Yucaipa, CA 92399
 (909) 797-5118

PARTIAL PAYMENT ESTIMATE # 2

110	Furnish and install 6" fire hydrant per YVWD Standard Drawing W-18.	4	\$ 6,500	\$ 34,000	0.00	\$0	4.00	\$34,000
111	Furnish and install 4" blowoff per YVWD Standard Drawing W-19.	2	\$ 5,700	\$ 11,400	0.00	\$0	2.00	\$11,400
112	Disinfect and flush 8" potable water pipelines (per AWWA Standard).	1	\$ 5,200	\$ 5,200	0.00	\$0	1.00	\$5,200
113	Connection to existing system per Detail 1, Sheet 5, including all piping, fittings, and appurtenances.	1	\$ 5,700	\$ 5,700	0.00	\$0	1.00	\$5,700
114	Connection to existing system per Detail 2, Sheet 5, including all piping, fittings, and appurtenances.	1	\$ 7,000	\$ 7,000	0.00	\$0	1.00	\$7,000
115	Connection to existing system per Detail 3, Sheet 5, including all piping, fittings, and appurtenances.	1	\$ 6,200	\$ 6,200	0.00	\$0	1.00	\$6,200
116	Connection to existing system per Detail 4, Sheet 5, including all piping, fittings, and appurtenances.	1	\$ 8,300	\$ 8,300	0.00	\$0	1.00	\$8,300
117	Relocate existing gas service as required for construction, including all coordination with the Gas Company and associated fees.	3	\$ 100	\$ 300	0.00	\$0	3.00	\$300
118	Furnish and install 1" water service per YVWD Standard Drawing W-5, including connection to existing customer service piping.	35	\$ 2,500	\$ 87,500	0.00	\$0	35.00	\$87,500
119	Furnish and install 1" water service per YVWD Standard Drawing W-5 (connection to existing customer service piping located in the alley on Cedar Avenue by District).	7	\$ 2,000	\$ 14,000	0.00	\$0	7.00	\$14,000
120	Furnish and install 2" water service per YVWD Standard Drawing W-7, including connection to existing customer service piping.	1	\$ 3,300	\$ 3,300	0.00	\$0	1.00	\$3,300
121	Sawcut, remove, and dispose of existing AC paving and base as required for trenching.	3050	\$ 1	\$ 3,050	0.00	\$0	3050.00	\$3,050
122	Furnish and install AC Pavement over mainline and branch trenches per City of Yucaipa Standard Drawing 106-83.	3050	\$ 22	\$ 67,100	0.00	\$0	625.00	\$13,750

Cedar Avenue, Adams Street and Comberton Street Replacement Pipelines
 September 2015

Payment Form Q-2

Project #

Yucaipa Valley Water District
 P.O. Box 730
 Yucaipa, CA 92389
 (909) 797-5118

PARTIAL PAYMENT ESTIMATE # 2

123	Furnish and install 0.75" AC pavement cap over mainline and branch trenches per City of Yucaipa Standard Drawing 106-83 (including header grind).	36000	\$	1	\$	41,400	0.00	\$0	0.00	\$0
124	Remove cracked paving or floaters adjacent to street pavement repair as directed by District or City and pave per City of Yucaipa Standard Drawing 106-83.	500	\$	2	\$	1,000	0.00	\$0	0.00	\$0
125	Abandon existing 6" ACP/STL pipelines (approximate length 1,800 LF) by filling the pipe with Controlled Low Strength Material.	1	\$	2,000	\$	2,000	0.00	\$0	1.00	\$2,000
126	Remove and dispose of existing abandoned 8" pipeline in Cedar Avenue, as required for construction.	650	\$	1	\$	650	0.00	\$0	650.00	\$650
127	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	\$	2,600	\$	2,600	0.00	\$0	1.00	\$2,600
128	Owner-directed field orders pre-authorized by District.	1	\$	20,000	\$	20,000	0.00	\$0	1.00	\$20,000

Amount	This Period	Total to Date
Amount Earned	\$404,250.00	\$404,250.00
Amount Retained 0%	\$0.00	\$0.00
Previous Payments	\$384,037.50	\$0.00
Amount Due	\$20,212.50	\$404,250.00

Estimate Percentage Of Job Completed 100

Is Contractor's Construction Progress on Schedule? No Yes X

I hereby certify that I have carefully inspected the work and as a result of my inspection and to the best of my knowledge and belief, the quantities shown in this estimate are correct and have not been shown in previous estimates and the work has been performed in accordance with the contract documents.

Cedar Avenue, Adams Street and Comberton Street Replacement Pipelines
 September 2015

Payment Form Q-3

Project #

Yucaipa Valley Water District
P.O. Box 730
Yucaipa, CA 92399
(909) 797-5118

PARTIAL PAYMENT ESTIMATE # 2

Date Thursday September 10, 15

Borden Excavating, Inc.
Name of Contractor

By: [Signature]

Project Manager
Title

YUCAIPA VALLEY WATER DISTRICT

By: [Signature]
Engineer

By: [Signature]
Inspector

MATH CHECKED BY [Signature] DATE 10/27/15
REVIEWED BY [Signature] DATE 10/27/15
REVIEWED BY _____ DATE _____
GL# _____
CMMS# _____

Cedar Avenue, Adams Street and Comberton Street Replacement Pipelines
September 2015

Payment Form Q-4

**CEDAR AVENUE, ADAMS STREET, ADAMS COURT,
AND COMBERTON STREET REPLACEMENT PIPELINES
AGREEMENT BY AND BETWEEN
THE CITY OF YUCAIPA AND THE YUCAIPA VALLEY WATER DISTRICT**

The City of Yucaipa, a Municipal Corporation, hereinafter referred to as "City", and Yucaipa Valley Water District, a Special District, hereinafter referred to as "District", hereby mutually agree as follows:

I. Purpose of Agreement:

The District has completed the pipeline replacement project consisting of the installation of approximately 2,800 linear feet of 8-inch ductile iron pipe in Cedar Avenue, Adams Street, Adams Court and Comberton Street.

With the cooperation of the City, upon completion of the pipeline replacement project, the City will pave Cedar Avenue, Adams Street, Adams Court and Comberton Street as part of its Pavement Management Program.

II. Scope of Agreement:

In exchange for the City's paving on Cedar Avenue, Adams Street, Adams Court, and Comberton Street, the District will:

- A. Maintain existing temporary paving for a maximum of sixty (60) days or until start of the City Pavement Management Program for the affected streets, whichever occurs sooner.
- B. Lower all existing manholes and water valves in this work zone and compensate the City for reasonable costs associated with adjusting manholes and water valves to new street grade.
- C. Contribute \$41,400 toward the City Pavement Management Program for paving on Cedar Avenue, Adams Street, Adams Court, and Comberton Street upon award of City contract.

IN WITNESS WHEREOF, the City of Yucaipa and the Yucaipa Valley Water District have executed this Agreement the day and year first written above.

The City and District hereby agree to the full performance of the covenants and conditions contained herein.

City of Yucaipa

Yucaipa Valley Water District

Ray Casey, City Manager



Joseph Zoba, General Manager

Date

Date



Date: November 4, 2015

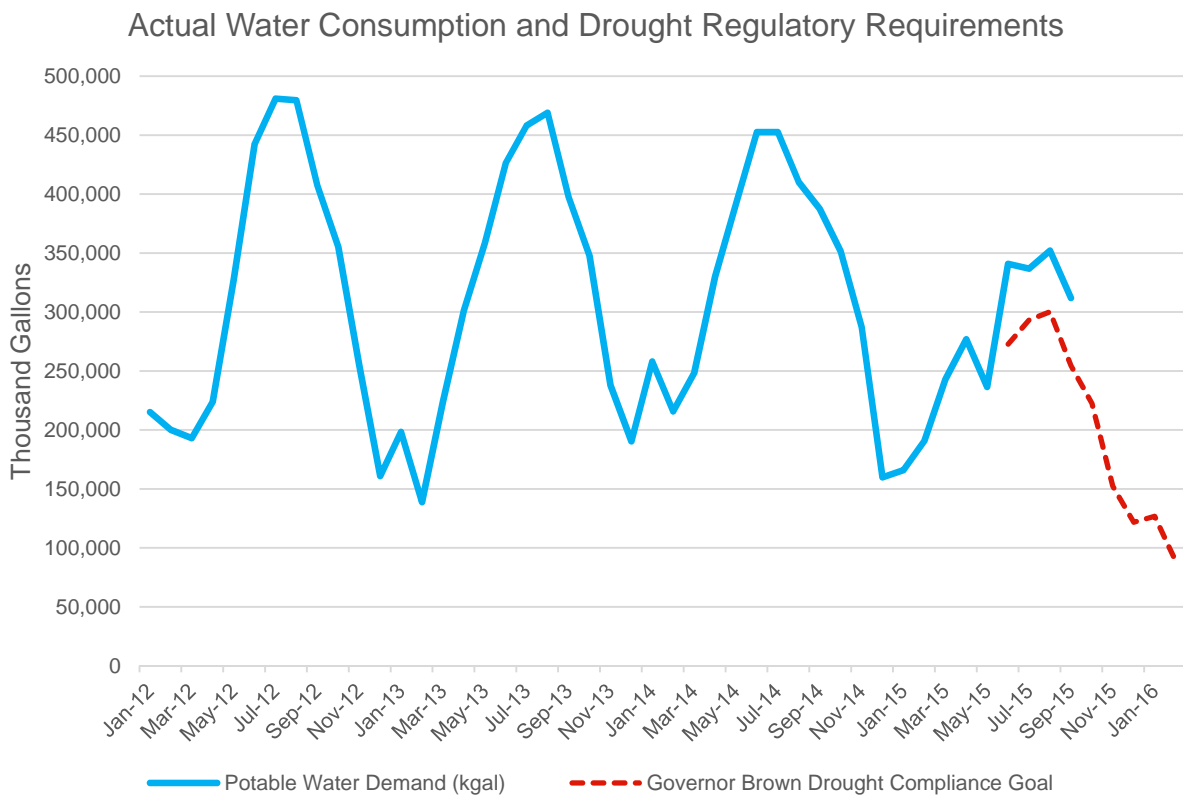
Prepared By: Joseph Zoba, General Manager

Subject: Discussion Regarding Fines Assessed by the State Water Resources Control Board Pursuant to the Emergency Water Conservation Regulations

Recommendation: Pending

The Yucaipa Valley Water District has been made aware that the State Water Resources Control Board is now assessing enforcement actions against public agencies for failure to meet the water conservation standards. The water conservation standards were adopted by the State Water Resources Control Board on May 5, 2015, and required that the Yucaipa Valley Water District achieve a 36% reduction in potable water use for the month of June 2015.

The Yucaipa Valley Water District has made every effort to achieve compliance, but has not met the 36% water conservation goal as shown below.





DROUGHT: State fines Redlands, others \$61,000 for missing water targets

Cities of Beverly Hills, Indio and the Coachella Valley Water District also hit with penalties by state officials.

State water officials issued a \$61,000 fine to the Redlands water department and three other Southern California providers for failing to hit water conservation targets, it was announced Friday, Oct. 30.



A boat dock on Big Bear Lake hit ground in August because of receding water levels from four years of drought.
NICK UT, AP

The cities of Beverly Hills and Indio and the Coachella Valley Water District also were penalized by the State Water Resources Control Board Office

of Enforcement. The penalties are based on the board's authority to issue fines of \$500 per day for violations of its emergency regulation. The board could also issue the providers a cease and desist order, which carries a fine up to \$10,000 per day for non-compliance.

"Up and down the state, residents and water suppliers are making the necessary sacrifices needed to help California meet its conservation goals. However, some urban water suppliers simply have not met the requirements laid before them," said Cris Carrigan, director of the Office of Enforcement. "For these four suppliers, it's been too little too late to achieve their conservation standard."

The water board also announced that California residents reduced their water use by 26.1 percent in September, exceeding state-ordered conservation targets for the fourth month in a row.

In April, Gov. Jerry Brown ordered the state's urban water suppliers to collectively reduce water use by 25 percent in the face of a fourth year of drought that has depleted reservoirs.

The State Water Resources Control Board set targets for each supplier based on past use; the cutbacks range from 8 percent to 36 percent compared to 2013 baseline levels.

Statewide in September, residents used an average of 97 gallons per day, down from 102 gallons in August.

Suppliers reported 77,763 compliance and enforcement actions taken in September, a significant decrease from the 92,868 actions reported in August.

Californians have exceeded Brown's conservation goal every month since the regulations became mandatory in June. Statewide cutbacks amounted to 27 percent in August, 31 percent in July and 27 percent in June; the cumulative savings was 28.7 percent.

That put the state about halfway toward its goal of saving 1.2 million acre-feet of water between June 2015 and the end of February 2016. One acre-foot is equal to 325,851 gallons, about enough water to supply two households for a year.

Some communities have failed to meet their targets.

Hemet's water department was one of eight in the state that received conservation orders from the water board this summer for being more than 15 percent off target. The department was given a list of steps to take, including hiring staff and performing audits of commercial users, to get closer to the goal.

Water departments in Yucaipa and Norco also have been well off their goals and state officials have said they will issue them enforcement orders.

Suppliers that violate a conservation order can be fined up to \$500 per day. The water board can also send violators a cease-and-desist order, which carries a fine of up to \$10,000 per day for noncompliance.

Many Inland water suppliers said they are way off the mark for October, which has been one of the hottest on record. There already is less opportunity for significant savings in the fall because water use is already lower, state officials said.

The state is urging residents to water once a week or less beginning in the fall. If El Niño does bring above-normal precipitation to Southern California later this year, that won't be hard to do.

But people should count on El Niño for rain. And even if it does arrive, it won't solve the drought, said Felicia Marcus, the state water board chairwoman.

The state needs snow in the Sierra Nevada - known as California's frozen reservoir - to provide runoff next spring that feeds the State Water Project. However, El Niños typically bring wetter weather to Southern California and drier conditions to the north.

Contact the writer: jzimmerman@pe.com or 951-368-9586



**CALIFORNIANS MEET GOVERNOR’S WATER CONSERVATION
MANDATE FOR FOURTH CONSECUTIVE MONTH**

***STATE WATER BOARD ISSUES
PENALTIES AGAINST FOUR WATER SUPPLIERS***

**FOR IMMEDIATE RELEASE
October 30, 2015**

**Contact: George Kostyrko
gkostyrko@waterboards.ca.gov**

SACRAMENTO – Californians reduced water use by more than 26 percent during September, exceeding Governor Edmund G. Brown Jr.’s 25 percent conservation mandate for a fourth straight month.

“Millions of Californians have saved water during the summer months, which are the four most critical months to save water,” said Felicia Marcus, chair of the State Water Resources Control Board. “This is important and wonderful, and we are thankful for all of the effort by individuals and agencies. Now, we need to keep it up as best we can, even as we hope for as much rain and snow as we can safely handle. We’re in the position of having to prepare for drought and flooding at the same time, but that’s what we’re faced with.”

Nearly all water suppliers in the state have complied with the conservation standards. However, a few have not stepped up in the same way, despite warnings that failure to meet conservation targets could result in penalties. Yesterday, the State Water Resources Control Board (State Water Board) Office of Enforcement issued enforcement actions against four urban water suppliers that have consistently failed to meet their water conservation goals.

The suppliers are the city of Beverly Hills, city of Indio, city of Redlands and the Coachella Valley Water District. Each of these suppliers has been issued a complaint for a \$61,000 penalty for failing to meet their mandated conservation tier standards. These penalties are based on the Board’s authority to issue fines of \$500 per day for violations of its emergency

Water Conservation Quick Links

- [Factsheet: September by the Numbers](#)
- [June 2014-September 2015 data set](#)
- [Cumulative Savings and Conservation Compliance for September](#)
- [September Savings by Region](#)
- [Supplier Enforcement Statistics](#)



Media Release

regulation. The Board also has the ability to issue penalties of up to \$10,000 per day for violations of a Cease and Desist Order. The Board has not issued any Cease and Desist Orders to date.

“Up and down the state, residents and water suppliers are making the necessary sacrifices needed to help California meet its conservation goals. However, some urban water suppliers simply have not met the requirements laid before them,” said Cris Carrigan, director of the Office of Enforcement. “For these four suppliers, it’s been too little too late to achieve their conservation standard.”

With the end of summer, when water use is highest, it will be much more difficult for urban water suppliers that are significantly behind to make up ground on their cumulative savings totals. This issue is one of many that weighed into the decisions to take enforcement actions against four water suppliers. Water suppliers have 20 days to appeal these penalties to the full State Water Board.

September Conservation Data

- For June through September, the cumulative statewide savings rate was 28.1 percent, which equates to 777,739 acre-feet or 253.4 billion gallons. This is 65 percent of the overall goal of saving 1.2 million acre-feet by February 2016.
- Statewide water savings rate for September 2015 was 26.1 percent (165,233 acre-feet, or 53.8 billion gallons), a decrease from August’s 27.0 percent savings rate.
- Statewide, the average water use for September was 97 residential gallons per capita per day (R-GPCD).

Enforcement Data

- Suppliers reported 77,763 compliance and enforcement actions taken in September, a significant decrease from the 92,868 actions reported in August. See the [enforcement statistics](#) for more information.
- The Office of Enforcement continues to work with suppliers that have not met their conservation standard. Since June, the State Water Board has issued:
 - Eight conservation orders;
 - 99 information orders;
 - 68 warning letters; and
 - Seven alternative compliance orders.

Despite September’s lower overall savings rate, the number of suppliers in compliance with the emergency regulation remained similar to August. Of the 389 suppliers reporting for



September, six were more than 15 percentage points away from meeting their conservation standard -- one of these suppliers is new to this compliance category. For more information, visit the [enforcement page](#).

Conservation Must Continue Through Winter

Residential water users are urged to keep up their efforts to conserve through the winter months. That includes complying with urban water supplier directives to switch to fall watering schedules of once a week as well as a prohibition against watering during a rain event and 48 hours directly following a rain event.

“With continued heat, the danger of more wildfires, and no way of knowing when the drought will end, every drop of water that remains in our local reservoirs and aquifers is insurance in case of another dry year or more,” Chair Marcus said. “We need to save water inside and outdoors in the creative ways Californians have. But at the same time, we need to protect our trees by making sure to water them slowly and carefully.”

Conservation programs put in place during the late spring and early summer months by most of the state’s water suppliers have yielded dramatic reductions in water use and a reexamination of personal water-use habits. In addition to many effective local programs, state-funded turf removal and toilet replacement rebates are also now available. Information and rebate applications are available at: www.saveourwaterrebates.com/.

Background

In his April 1 [Executive Order](#), Gov. Brown mandated a 25 percent water use reduction for cities and towns across California.

In May, the State Water Board adopted an emergency regulation requiring an immediate 25 percent reduction in overall potable urban water use. The regulation uses a sliding scale for setting conservation standards, so that communities that have already reduced their R-GPCD through past conservation will have lower mandates than those that have not made such gains since the last major drought.

Each month, the State Water Board compares every urban water supplier’s water use with their use for the same month in 2013 to determine if they are on track for meeting their conservation standard. Local water agencies determine the most cost effective and locally appropriate way to achieve their standard. The State Water Board will work closely with water suppliers to implement the regulation and improve local efforts that are falling short.

California has been dealing with the effects of an unprecedented drought. To learn about all the actions the state has taken to manage our water system and cope with the impacts of the



drought, visit Drought.CA.Gov. Every Californian should take steps to conserve water. Find out how at SaveOurWater.com.

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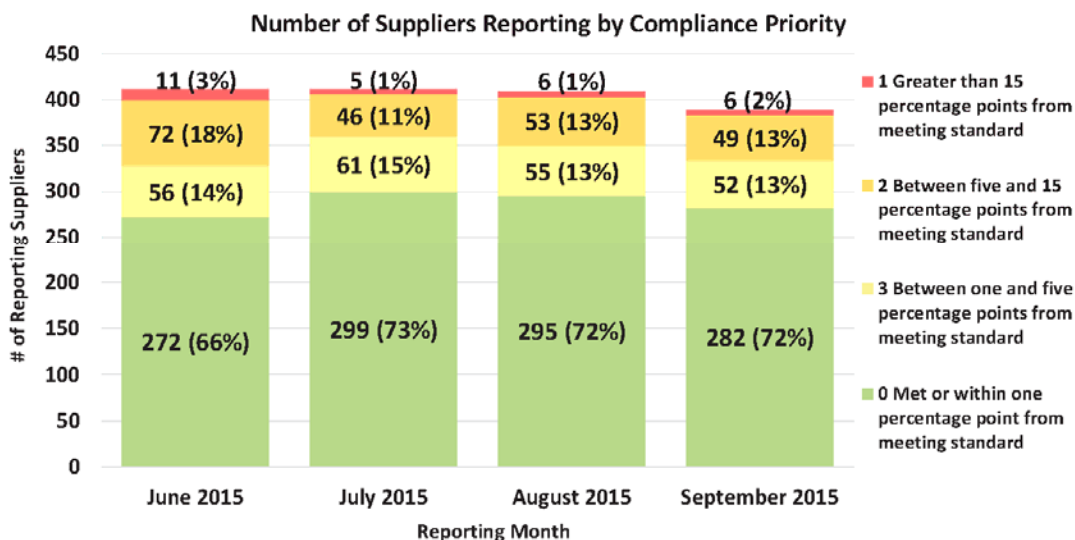
September 2015 Statewide Conservation Data

September Conservation Summary

September marks the fourth month that the state’s 400-plus urban water suppliers must be in compliance with the emergency [conservation standards](#). This fact sheet summarizes the results for September and illustrates the progress made since June 2014, when urban water suppliers were first required to submit monthly conservation reports.

The amount of water saved collectively by the state’s large urban water suppliers decreased from 27 percent in August to 26.1 percent in September, compared to the same time in 2013. The four month (June – September) cumulative savings comes in at 28.1 percent. The year 2013 serves as the baseline for determining water savings statewide. While the last four summer months have been some of the hottest on record, conservation efforts have exceeded the statewide target as temperatures climbed. However, in September, conservation efforts continue to dip. The current report is posted [here](#).

Conservation Standard Compliance September 2015





September saw a decrease in compliance by water suppliers, first seen in August, following July’s record conservation rate of 31.4 percent. With 389 water supplier reports submitted for September, 282 suppliers (72 percent) met, or were within one percentage point of their conservation standard; 52 suppliers (13 percent) were between one and five percentage points of meeting their conservation standard; and 49 suppliers (13 percent) were between five and 15 percentage points of meeting their conservation standard. Six suppliers (two percent) were more than 15 percentage points from meeting their conservation standard -- one of these suppliers is new to this compliance category in September.

The State Water Board continues to work closely with water suppliers to implement the regulation and to support improved local efforts where conservation savings are falling short as described in the table above. Information about the Board’s compliance actions is located [here](#).

Water Savings by Hydrologic Region June 2014 to September 2015

Statewide savings for September was 26.1 percent, a decline from August’s 27 percent savings. The amount of water saved in September (53.8 billion gallons) is more than twice the amount of water saved in September 2014 (23.1 gallons). September’s statewide average savings is just over one percentage point above the minimum 25 percent average called for by the Governor in his April 1 [Executive Order](#). Saving water in the cooler fall months is critical to maintain the overall 25 percent goal, as that is when the greatest amount of water is traditionally used, particularly on outdoor ornamental landscapes.

Hydrologic Region	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sep 15	Trend
Central Coast	9.5%	13.5%	15.2%	15.9%	14.4%	21.6%	29.2%	9.4%	8.8%	9.4%	19.1%	30.5%	30.6%	31.9%	28.1%	26.7%	
Colorado River	6.6%	3.1%	7.0%	6.9%	5.4%	6.7%	7.4%	12.2%	-0.9%	7.3%	11.9%	19.8%	25.2%	34.0%	24.8%	17.4%	
North Coast	4.2%	10.2%	13.1%	9.4%	22.0%	19.5%	15.7%	15.7%	7.4%	-4.0%	22.8%	28.8%	16.1%	32.5%	19.7%	18.6%	
North Lahontan	0.0%	1.4%	13.9%	5.3%	-0.9%	0.8%	12.7%	8.8%	11.9%	9.8%	16.8%	38.4%	29.8%	32.4%	25.0%	16.2%	
Sacramento River	14.0%	19.7%	22.1%	17.1%	18.8%	25.9%	21.6%	6.0%	14.1%	11.5%	23.5%	38.8%	36.3%	38.4%	34.5%	28.3%	
San Francisco Bay	10.3%	12.9%	15.1%	15.4%	14.9%	17.8%	20.9%	2.4%	7.9%	6.6%	19.9%	31.9%	32.3%	32.3%	30.5%	25.1%	
San Joaquin River	6.7%	12.4%	13.2%	10.1%	10.0%	20.8%	18.3%	12.3%	13.6%	11.4%	20.0%	35.0%	33.3%	34.6%	30.0%	25.4%	
South Coast	-0.1%	2.3%	8.4%	8.2%	1.8%	3.4%	23.8%	6.2%	-2.6%	0.6%	9.0%	25.8%	23.0%	28.2%	23.8%	26.5%	
South Lahontan	5.7%	4.5%	11.0%	8.5%	0.6%	1.5%	6.9%	10.8%	3.3%	10.1%	12.0%	21.8%	31.1%	35.9%	29.2%	27.4%	
Tulare Lake	5.0%	8.6%	14.4%	11.6%	6.3%	16.5%	26.2%	8.7%	9.9%	4.3%	17.2%	31.3%	29.4%	32.2%	28.0%	26.0%	
Statewide	4.4%	7.5%	12.0%	10.7%	6.8%	10.1%	22.3%	6.6%	2.5%	3.9%	13.7%	29.0%	27.6%	31.4%	27.0%	26.1%	

The table above shows the monthly water savings by hydrologic region compared with the same month in 2013. Average statewide monthly savings for September 2015 was 26.1 percent; average hydrologic region monthly savings for September 2015 ranged from 16.2 percent to 28.3 percent. In September 2015, nine of the 10 hydrologic regions reported lower monthly savings than they did in August 2015. The exception was the South Coast Hydrologic Region, which improved its savings from August to September. However, all 10 hydrologic regions reported significantly higher monthly savings in September 2015 than they did in September 2014.



R-GPCD by Hydrologic Region June 2014 to September 2015

Statewide average residential gallons per capita per day (R-GPCD) for September was 97 gallons, down from August (102 R-GPCD), but significantly lower than residential water use in September 2014 (118 R-GPCD), and estimated residential water use September 2013 (132 R-GPCD; based on September 2014 percent residential use and population).

Hydrologic Region	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sep 15	Trend
Central Coast	99.9	95.0	90.6	88.6	83.4	65.9	54.3	60.5	59.9	65.1	71.5	71.5	75.5	76.7	77.2	78.6	
Colorado River	235.3	236.2	217.9	181.8	169.3	166.1	115.5	115.4	128.2	123.4	160.1	160.1	166.7	151.0	168.7	184.2	
North Coast	87.9	96.0	81.9	84.2	66.9	54.8	56.5	54.4	52.6	61.5	60.0	64.1	78.7	73.5	75.7	72.1	
North Lahontan	162.0	147.8	131.2	126.6	93.8	68.2	72.4	70.2	61.5	61.2	66.3	83.4	115.2	115.0	119.2	114.4	
Sacramento River	187.0	197.5	177.4	164.1	130.4	89.2	70.7	73.6	71.8	97.3	104.2	118.0	137.9	151.8	149.9	140.9	
San Francisco Bay	98.8	98.2	90.7	84.0	76.7	62.8	53.0	56.8	55.9	63.4	65.4	65.9	70.0	72.0	72.3	72.2	
San Joaquin River	196.7	196.7	173.9	157.6	130.3	90.5	71.7	68.4	69.7	93.6	105.7	113.5	130.1	134.3	135.0	125.5	
South Coast	121.5	120.0	112.6	111.5	103.3	88.1	64.6	73.2	76.6	83.3	90.1	81.2	91.2	88.3	94.5	89.3	
South Lahontan	189.3	191.6	179.7	158.2	132.8	107.2	71.5	71.6	75.4	95.3	113.4	120.6	133.3	129.3	146.2	126.8	
Tulare Lake	201.0	211.7	189.3	178.9	148.2	105.5	80.1	74.7	75.0	101.0	127.0	132.0	154.9	162.5	164.4	150.5	
Statewide	132.9	133.0	123.0	117.5	105.1	85.7	65.0	70.5	72.5	82.4	90.5	87.5	98.0	98.0	102.3	97.3	

The table above shows monthly average R-GPCD by hydrologic region. September residential water use varied throughout the state, with the North Coast Hydrologic Region reporting the lowest R-GPCD at 72 gallons per person per day, and the Colorado River Hydrologic Region reporting the highest R-GPCD at 184 gallons per person per day. As can be seen in the table, nine of the 10 hydrologic regions report lower R-GPCDs in September 2015 than they did in September 2014 (the exception was the Colorado River Hydrologic Region which increased residential water use by two gallons per person per day from September 2014 to September 2015). However, all 10 hydrologic regions have reduced their residential water use since September 2013.

Caring for Trees While Conserving Water

Saving trees is important for cooling city streets and public safety, and watering them is essential and requires some care. That is why the [Save Our Water campaign](#) has partnered with California ReLeaf to provide residents with tips on how to maintain trees while reducing outdoor water use. Information is available at: www.saveourwater.com/trees.

Rebate Programs for Turf Removal and Toilet Replacement

Inefficient toilets and turf grass use large volumes of water, and present opportunities for significant water savings. Rebates are now available at: <http://saveourwaterrebates.com/>.

(This fact sheet was last updated October 29, 2015)



State Water Resources Control Board

October 29, 2015

(sent via electronic mail and certified mail)

CERTIFIED MAIL
No. 7015 0640 0006 0950 4582

Mr. Chris Diggs
City of Redlands
30 Cajon Street, Suite 15A
Redlands, CA 92373
cdiggs@cityofredlands.org

SUBJECT: ENFORCEMENT ACTION: ISSUANCE OF ADMINISTRATIVE CIVIL LIABILITY COMPLAINT FOR FAILURE TO MEET WATER CONSERVATION STANDARD

Dear Mr. Diggs

On May 5, 2015, the State Water Resources Control Board (State Water Board) adopted Resolution 2015-0032, an Emergency Regulation for Statewide Urban Water Conservation (Emergency Regulation) pursuant to Water Code section 1058.5. The Emergency Regulation became effective on May 18, 2015. Among other things, the Emergency Regulation is designed to achieve the 25 percent statewide potable water usage reduction through February 2016 ordered by Governor Brown in his April 1, 2015 Executive Order.

The Emergency Regulation requires each urban water supplier to "reduce its total potable water production by the percentage identified as its conservation standard." (Cal. Code Regs., tit. 23, § 865(c)(1).) The City of Redlands has failed to meet its conservation standard. Therefore, I am issuing you the enclosed Administrative Civil Liability Complaint (Complaint) under Water Code sections 1846 and 1055. The proposed civil liability is based on the findings set forth in the enclosed Complaint.

If you have questions, or believe the allegations are erroneous, please contact Dr. Matthew Buffleben at (916) 341-5891, or by email at Matthew.Buffleben@waterboards.ca.gov. Your right to request a hearing to contest the allegations is also described in the Complaint.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Carrigan".

Christian M. Carrigan, Director
Office of Enforcement

Enclosure

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | www.waterboards.ca.gov

City of Redlands

- 2 -

October 29, 2015

(via email only)

Ms. Cecilia Griego
City of Redlands
Water Resources Specialist
cgriego@cityofredlands.org

State Water Resources Control Board
Ms. Caren Trgovcich
Chief Deputy Director
caren.trgovcich@waterboards.ca.gov

Mr. Eric Oppenheimer, Director
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eric.oppenheimer@waterboards.ca.gov

Mr. Max Gomberg
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Dr. Matthew Buffleben, Chief
Special Investigations Unit
Matthew.Buffleben@waterboards.ca.gov

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

OFFICE OF ENFORCEMENT

ADMINISTRATIVE CIVIL LIABILITY COMPLAINT

In the Matter of Urban Water Conservation
by
CITY OF REDLANDS

YOU ARE HEREBY GIVEN NOTICE THAT:

1. The City of Redlands (Redlands) is alleged to have failed to reduce its total potable water production by 36 percent for each month as compared to the amount used in the same month in 2013, in violation of California Code Regulations, title 23, section 865(c)(10), adopted by the State Water Resources Control Board (State Water Board or Board) pursuant to Water Code section 1058.5.
2. Water Code section 1846, subdivision (a)(2), provides that any person or entity that violates a regulation adopted by the Board may be liable for up to five hundred dollars (\$500) for each day the violation occurs. Water Code section 1846, subdivision (c), provides that civil liability may be imposed administratively by the State Water Board pursuant to Water Code section 1055.
3. Water Code section 1055, subdivision (a), provides that the Executive Director of the Board may issue a complaint to any person or entity on which Administrative Civil Liability (ACL) may be imposed. State Water Board Executive Director Thomas Howard has delegated this authority to Chief Deputy Director Caren Trgovcich, who in turn has delegated the authority to issue a complaint for violation of California Code Regulations, title 23, sections 865(d)(1) to the Director of the State Water Board's Office of Enforcement, Cris Carrigan.

ALLEGATIONS

4. On January 17, 2014, Governor Edmund G. Brown Jr. (Governor Brown) issued Proclamation No. 1-17-2014 (Proclamation), declaring a State of Emergency to exist in California under the Emergency Services Act due to severe drought conditions. The Proclamation, among other things, called on all Californians to reduce their water usage by 20 percent.
5. On April 25, 2014, Governor Brown issued a Proclamation of a Continued State of Emergency due to drought conditions, based on the need to strengthen the state's ability to manage water and habitat effectively in drought conditions.
6. On April 1, 2015, Governor Brown issued Executive Order B-29-15 (Executive Order) to strengthen the state's ability to manage water and habitat effectively in drought conditions. The Executive Order calls on all Californians to redouble their efforts to conserve water, and directs the State Water Board to impose restrictions on urban water suppliers to achieve a statewide 25 percent reduction in potable urban water usage through February 2016.
7. On May 5, 2015, the State Water Board adopted Resolution 2015-0032, an Emergency Regulation for Statewide Urban Water Conservation (Emergency Regulation) pursuant to Water Code section 1058.5. The Emergency Regulation adds a new section to title 23 of the California Code of Regulations intended to safeguard urban water supplies in the event of continued drought, minimize the potential for waste and unreasonable use of water, and achieve the 25 percent statewide potable water usage reduction ordered by Governor Brown

City of Redlands

Page 2 of 4

in the Executive Order. The Emergency Regulation was approved by the Office of Administrative Law and became effective on May 18, 2015.

8. The Emergency Regulation requires each urban water supplier to “reduce its total potable water production by the percentage identified as its conservation standard.” California Code Regulations, title 23, section 865(c)(1).
9. Section 865(b)(2) requires urban water suppliers to prepare and submit a monitoring report to the State Water Board by the 15th of each month detailing the total amount of potable water produced compared to the amount produced in the same calendar month in 2013.
10. The drought conditions that formed the basis for the Executive Order and Emergency Regulations continue to exist and will likely continue to exist for the foreseeable future.
11. Redlands has a conservation target, pursuant to Section 865(c)(10), of 36 percent savings over its water usage in 2013. AS of the date of its last report, Redlands is cumulatively 12.6 percent behind in meeting the applicable conservation standard, which translates to an estimated 483,615,654 gallons of water.
12. On August 7, 2015 the State Water Board Office of Enforcement issued a Notice of Violation and an Information Order pursuant to its authority outlined in Section 866(b) of the Emergency Regulations, to determine what actions Redlands had taken to comply with its conservation standard. Redlands responded to the Information Order on August 19, 2015.
13. Water Board staff reviewed the information provided by Redlands in response to the Information Order and have been monitoring ongoing conservation efforts. Although Redlands increased the availability of water conservation rebates, there are significant deficiencies in Redlands’ conservation program including: failure to update its water rate structure to include a water conservation incentive, as well as a failure to issue penalties for water users who waste water or violate the local ordinance.
14. Water Board staff reviewed the urban supplier monthly reports and used two metrics assess the nature and persistence of the water conservation standard violations: 1) monthly and cumulative performance in meeting the numeric conservation standard, and 2) the total volume of water produced by the water supplier above the applicable conservation standard. These metrics were analyzed together to compile a single ranking. Redlands was identified as a water supplier whose violation of the regulation was one of the most severe.
15. The circumstances described above indicate that Redlands has violated section 865(c)(10) by failing to reduce its total potable water production by 36 percent for each month as compared to the amount used in the same month in 2013, or for a total of 122 days from the effective date of the Emergency Regulation on June 1, 2015 and the September 30, 2015 date tabulated in its last report.

PROPOSED CIVIL LIABILITY

16. Water Code section 1846, subdivision (a)(2), provides that any person or entity that violates a regulation adopted by the Board may be liable for up to five hundred dollars (\$500) for each day the violation occurs.
17. The evidence provided by Redlands in the monthly reports that are submitted in compliance with Section 865(b)(2) demonstrates that Redlands is in ongoing violation of the Conservation Order, beginning on June 1, through at least September 30th – a total of 122 days.

City of Redlands

Page 3 of 4

18. The maximum civil liability for the alleged violations is \$61,000.
19. In determining the amount of civil liability, California Water Code section 1055.3 requires that the State Water Board consider all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the nature and persistence of the violation, the length of time over which the violation occurs, and any corrective action taken by the violator.
20. In this case, Redlands has consistently failed to meet its conservation standard, even after a Notice of Violation was issued by the State Water Board. Redlands has issued no penalties to its customers, and as such has failed to enforce its own water restrictions it put in place to meet this standard. Redlands' violation of the emergency regulation has spanned four months, and is ongoing, with little to no change in behavior, regardless of the enforcement actions taken by the State Water Board.
21. Although not required under Water Code section 1055, State Water Board staff evaluated Redlands' ability to pay the proposed civil liability. Water Board staff reviewed Redlands' ability to satisfy immediate financial obligations by reviewing its financial reports and found the budgetary reserve is more than enough to pay the proposed civil liability.
22. Having taken into consideration the factors described above, the Director for the Office of Enforcement recommends an ACL for violating the emergency regulation of \$61,000. The recommended penalty is based on the circumstances known to this time: Redlands' continued failure to meet its conservation standard despite repeated warnings during extreme ongoing drought conditions, Redlands' ability to pay, and the need to provide a strong disincentive for continued violation by Redlands, its residents and any similarly-situated parties.

RIGHT TO HEARING

23. Redlands may request a hearing on this matter before the State Water Board. Any such request for hearing must be in writing and received or postmarked within 20 days of the date this notice is received. (California Water Code, § 1055, subd. (b).)
24. If Redlands requests a hearing, Redlands will have an opportunity to be heard and to contest the allegations in this Complaint and the imposition of an ACL by the State Water Board. If a hearing is requested, separate notice setting the time and place for the hearing will be mailed not less than 10 days before the hearing date.
25. If Redlands requests a hearing, the State Water Board will consider at the hearing whether to impose the civil liability, and, if so, whether to adjust the proposed liability within the amount authorized by statute. Based on the evidence received at the hearing, the State Water Board may take any appropriate action in accordance with sections 100, 275, and 1050 et seq. of the California Water Code. Any State Water Board order imposing an ACL shall become final and effective upon issuance.
26. If Redlands does not wish to request a hearing, please remit a cashier's check or money order within 20 days of the date of this Complaint for the amount of the ACL set forth above to:

State Water Resources Control Board
 Division of Administrative Services
 Accounting Branch 1001 I Street, 18th Floor,
 Sacramento, CA 95814
27. If Redlands does not request a hearing and does not remit the ACL amount, the State Water Board may seek recovery of the ACL amount as authorized by Water Code section 1055.4, may issue a Cease and Desist Order subjecting Beverly Hills to up to \$10,000 per day in civil liabilities for non-compliance, or may seek any other remedy authorized by law.

City of Redlands

Page 4 of 4

STATE WATER RESOURCES CONTROL BOARD



Christian M. Carrigan, Director
Office of Enforcement

Dated: 10/29/2015

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