



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

Tuesday, November 6, 2018 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 consent calendar matters are routine and will be acted upon in one motion. There will be no discussion of these items unless board members, administrative staff, or members of the public request specific items to be discussed and/or removed prior to the vote for approval.
 - A. Minutes of Meetings
 - 1. Regular Board Meeting - October 16, 2018
 - 2. Board Workshop - October 30, 2018
- V. **STAFF REPORT**
- VI. **DISCUSSION ITEMS**
 - A. Authorization to Conduct Pilot Recharge Testing to Evaluate the Long-Term Infiltration Rates in the Western Portion of the Beaumont Basin [[Director Memorandum No. 18-140 - Page 15 of 49](#)]
RECOMMENDED ACTION: That the Board authorize the General Manager to execute a contract with Geoscience for a sum not to exceed \$326,956.
 - B. Authorization to Execute a Contract with J.B. Paving & Engineering for Roadway Improvements to Mountain View Lane, Yucaipa [[Director Memorandum No. 18-141 - Page 29 of 49](#)]
RECOMMENDED ACTION: That the Board authorize the General Manager to execute a contract with J.B. Paving & Engineering for a sum not to exceed \$105,250.
 - C. Authorization to Execute a Contract with Weka Inc. for Sewer Mainline Repairs in Wildwood Creek, Yucaipa [[Director Memorandum No. 18-142 - Page 34 of 49](#)]
RECOMMENDED ACTION: That the Board authorize the General Manager to execute a contract with Weka, Inc. for a sum not to exceed \$32,684.

Any person who requires accommodation to participate in this meeting should contact the District office at (909) 797-5117, at least 48 hours prior to the meeting to request a disability-related modification or accommodation.

Materials that are provided to the Board of Directors after the meeting packet is compiled and distributed will be made available for public review during normal business hours at the District office located at 12770 Second Street, Yucaipa. Meeting materials are also available on the District's website at www.yvwd.dst.ca.us

VII. BOARD REPORTS & DIRECTOR COMMENTS

VIII. ANNOUNCEMENTS

- A. November 13, 2018 at 4:00 p.m. - Board Workshop
- B. November 20, 2018 at 6:00 p.m. - Regular Board Meeting
- C. November 27, 2018 at 4:00 p.m. - Board Workshop
- D. December 4, 2018 at 6:00 p.m. - Regular Board Meeting
- E. December 11, 2018 at 4:00 p.m. - Board Workshop
- F. December 18, 2018 at 6:00 p.m. - Regular Board Meeting
- G. ~~December 25, 2018 at 4:00 p.m. - Board Workshop~~ Canceled
- H. ~~January 1, 2019 at 6:00 p.m. - Regular Board Meeting~~ Canceled
- I. January 8, 2019 at 4:00 p.m. - Board Workshop
- J. January 15, 2019 at 6:00 p.m. - Regular Board Meeting
- K. January 29, 2019 at 4:00 p.m. - Board Workshop

IX. CLOSED SESSION

- A. Conference with Real Property Negotiator(s) - Government Code 54956.8
Property: Assessor's Parcel Numbers: 413-380-001 - 009, and 013
Agency Negotiator: Joseph Zoba, General Manager
Negotiating Parties: Johnson Brothers Partnership
Under Negotiation: Terms of Payment and Price
- B. Conference with Real Property Negotiator(s) - Government Code 54956.8
Property: Assessor's Parcel Number(s): 294-121-24, 25 / 473-020-006, 008, 029, 043
Agency Negotiator: Joseph Zoba, General Manager
Negotiating Parties: Joanna Averett
Under Negotiation: Terms of Payment and Price

X. ADJOURNMENT

Consent Calendar



Yucaipa Valley Water District

MINUTES OF A REGULAR BOARD MEETING

October 16, 2018 at 6:00 P.M.

Directors Present:

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

Staff Present:

Joseph Zoba, General Manager
Allison Edmisten, Chief Financial Officer
Jennifer Ares, Water Resource Manager
Kathryn Hallberg, Implementation Manager
Matthew Porras, Implementation Manager
Mike Kosteletzky, Operations Manager
James Rowell, Interim Operations Manager
Kevin Lee, Interim Operations Manager

Directors Absent:

None.

Consulting Staff Present:

David Wysocki, Legal Counsel

Registered Guests and Others Present:

Linda Shelton, Customer
David Duron, Customer
Bassam Alzammar, Customer

CALL TO ORDER

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

FLAG SALUTE

Director Bruce Granlund led the pledge of allegiance.

ROLL CALL

The roll was called with Director Jay Bogh, Director Bruce Granlund, Director Chris Mann, Director Lonni Granlund and Director Tom Shalhoub present.

PUBLIC COMMENTS

None.

CONSENT CALENDAR

Director Bruce Granlund moved to approve the consent calendar and Director Chris Mann seconded the motion.

- A. Minutes of Meetings
 - 1. Regular Board Meeting - September 18, 2018
 - 2. Board Workshop - September 25, 2018
 - 3. Board Workshop – October 9, 2018
- B. Payment of Bills

1. Approve/Ratify Invoices for Board Awarded Contracts
2. Ratify General Expenses for September 2018

The motion was approved by the following vote:

Director Jay Bogh - Yes
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Tom Shalhoub - Yes

STAFF REPORT

A staff report was not provided at this meeting.

DISCUSSION ITEMS:

DM 18-134

PRESENTATION OF THE UNAUDITED FINANCIAL REPORT FOR THE PERIOD ENDING ON SEPTEMBER 30, 2018

Chief Financial Officer Allison Edmisten presented the Unaudited Financial Report for the period ending on September 30, 2018.

Director Lonni Granlund moved to receive and file the unaudited financial report. Director Bruce Granlund seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - Yes
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Tom Shalhoub - Yes

DM 18-135

OVERVIEW OF THE PROPOSED WORKERS' COMPENSATION INSURANCE POLICY RENEWAL

General Manager Joseph Zoba discussed the proposed Workers' Compensation insurance policy renewal.

Director Lonni Granlund moved to authorize the General Manager to execute the necessary contracts with Redwood F&C Berkshire Hathaway for workers' compensation insurance. Director Tom Shalhoub seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - Yes
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Tom Shalhoub - Yes

DM 18-136

RATIFICATION OF THE
ACCEPTANCE OF
OVERLYING WATER
RIGHTS IN THE
BEAUMONT BASIN FOR
TRACT NO. 32702-3 (80
LOTS) PURSUANT TO
BEAUMONT BASIN
WATERMASTER
RESOLUTION NO.
2017-02

General Manager Joseph Zoba discussed the ratification of the acceptance of overlying water rights in the Beaumont Basin for Tract No. 32702-3 (80 lots) pursuant to Beaumont Basin Watermaster Resolution No. 2017-02.

Director Chris Mann moved to accept the transfer of 29.57 acre-feet of overlying water rights in the Beaumont Basin from Oak Valley Partners to Yucaipa Valley Water District as overlying-appropriative water rights in the Beaumont Basin. Director Tom Shalhoub seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - Yes
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Tom Shalhoub - Yes

DM 18-137

CONSIDERATION OF
AN UPDATED
PROCUREMENT
POLICY FOR THE
YUCAIPA VALLEY
WATER DISTRICT

Chief Financial Officer Allison Edmisten discussed the updated Procurement Policy for the Yucaipa Valley Water District.

Director Bruce Granlund moved that by minute order, the Board adopt the proposed Procurement Policy. Director Lonni Granlund seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - Yes
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Tom Shalhoub - Yes

DM 18-138

DISCUSSION
REGARDING THE
ISSUANCE OF A
REQUEST FOR
PROPOSALS FOR
INSPECTION AND
CLEANING OF
POTABLE, NON-
POTABLE, AND
RECYCLED WATER
STORAGE FACILITIES

General Manager Joseph Zoba discussed the issuance of a Request for Proposals for the inspection and cleaning of potable, non-potable, and recycled water storage facilities.

Director Bruce Granlund moved to authorize the General Manager to finalize and release the Request for Proposals. Director Lonni Granlund seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - Yes
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Tom Shalhoub - Yes

DM 18-139

DISCUSSION
REGARDING THE
DRAFT 2018
IMPORTED WATER
RATE ANALYSIS FOR
THE SAN GORGONIO
PASS WATER AGENCY

General Manager Joseph Zoba discussed the proposed rate analysis by the San Gorgonio Pass Water Agency to increase imported water rates. A draft letter was discussed at the meeting to provide constructive suggestions to the San Gorgonio Pass Water Agency.

Director Chris Mann suggested inserting the following phrase into the first full paragraph on the second page, "...and to determine if we will continue to purchase imported water from the San Gorgonio Pass Water Agency...".

Director Chris Mann moved to authorize the General Manager to send the letter with the suggested changes to the San Gorgonio Pass Water Agency. Director Tom Shalhoub seconded the motion.

The motion was approved by the following vote:

Director Jay Bogh - Yes
Director Bruce Granlund - Yes
Director Lonni Granlund - Yes
Director Chris Mann - Yes
Director Tom Shalhoub - Yes

BOARD REPORTS AND
DIRECTOR COMMENTS

- Director Chris Mann reported on the Yucaipa Sustainable Groundwater Management Agency meeting held on September 26, 2018.
- Director Chris Mann reported on the Calimesa City Council meeting held on September 27, 2018.
- Director Chris Mann reported on the a Summerwind Trials Development site visit on September 28, 2018.
- Director Chris Mann reported on the Yucaipa Chamber of Commerce meeting held on October 2, 2018.
- Director Chris Mann reported on the reported on the BIA Legislative Affairs meeting held on October 3, 2018.
- Director Bruce Granlund reported on the San Gorgonio Pass Water Agency meeting held on October 8, 2018.
- Director Tom Shalhoub reported on the San Bernardino Valley Municipal Water District, Park Management and Property Committee meeting held on October 10, 2018.
- Director Tom Shalhoub reported on the West Valley Water District meeting held on October 11, 2018.
- Director Chris Mann and Director Bruce Granlund reported on the San Bernardino Valley Municipal Water District Advisory Commission meeting held on October 11, 2018.
- Director Tom Shalhoub, Director Bruce Granlund, and Director Lonni Granlund reported on the Association of San Bernardino County Special District meeting held on October 15, 2018.

ANNOUNCEMENTS

Director Jay Bogh called attention to the announcements listed on the agenda.

CLOSED SESSION

Director Jay Bogh, Director Bruce Granlund, Director Lonni Granlund, Director Tom Shalhoub and Director Chris Mann were present in closed session with Legal Counsel David Wysocki, General Manager Joseph Zoba, and Chief Financial Officer Allison Edmisten to discuss the following item.

- A. Conference with Real Property Negotiator(s)
Government Code 54956.8; Property:
Assessor's Parcel Numbers: 413-380-001 - 009,
and 013; Agency Negotiator: Joseph Zoba,
General Manager; Negotiating Parties: Johnson Brothers
Partnership; Under Negotiation: Terms of Payment and
Price
- B. Conference with Real Property Negotiator(s)
Government Code 54956.8; Property:
Assessor's Parcel Numbers: 294-121-24, 25 / 473-020-006,
008, 029, 043; Agency Negotiator: Joseph Zoba,
General Manager; Negotiating Parties: Joanna Averett;
Under Negotiation: Terms of Payment and Price

After reconvening out of closed session, Legal Counsel David Wysocki reported that direction was provided to the General Manager and that there were no other reportable actions taken.

ADJOURNMENT

The meeting was adjourned at 6:40 p.m.

Respectfully submitted,

Joseph B. Zoba, Secretary

(Seal)

MINUTES OF A BOARD WORKSHOP

October 30, 2018 at 4:00 P.M.

Directors Present:

Bruce Granlund, Vice President
Lonni Granlund, Director
Chris Mann, Director
Tom Shalhoub, Director

Staff Present:

Jennifer Ares, Water Resource Manager
Allison Edmisten, Chief Financial Officer
Chelsie Fogus, Engineering Technician I
Matt Flordelis, Public Works Supervisor
Ashley Gibson, Water Resource Project Supervisor
Kathryn Hallberg, Implementation Manager
Dustin Hochreiter, Senior Engineering Technician
Mike Kostelecky, Operations Manager
Kevin Lee, Interim Operations Manager
Matthew Porras, Implementation Manager
Mike Rivera, Public Works Supervisor
James Rowell, Interim Operations Manager
John Wrobel, Public Works Manager
Joseph Zoba, General Manager

Directors Absent:

Jay Bogh, President

Consulting Staff Present:

David Wysocki, Legal Counsel

Guests and Others Present:

David Duron, Customer
Joyce McIntyre, Customer
Linda Shelton, Customer

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- I. Call to Order - 4:00 p.m.
 - II. Public Comments - None
 - III. Staff Report - General Manager Joseph Zoba provided information about the following topics:
 - The meeting packet included an article from Matt Weiser News Deeply, Water Deeply titled "Why California Law Requires a Clear Benefit for Groundwater Recharge". This article provides insight into the permitting of recharge projects that divert stormwater for recharge.
 - IV. Presentations
 - A. Overview of Yucaipa Valley Water District's Participation in the Great California ShakeOut Event [Workshop Memorandum No. 18-240] - Water Resource Manager Jennifer Ares and Public Works Supervisor Matt Flordelis provided an overview of the Great California ShakeOut event conducted by the District and partners within the community.
 - B. Overview of a Proposal to Conduct Pilot Recharge Testing to Evaluate the Long-Term Infiltration Rates in the Beaumont Basin [Workshop Memorandum No. 18-241] - General Manager Joseph Zoba provided an overview of a proposal to

evaluate the long-term infiltration rates in the Beaumont Basin as part of the Calimesa Lake and Recharge Facility.

V. Operational Updates

- A. Overview of the Proposed Roadway Improvements to Mountain View Lane, Yucaipa [Workshop Memorandum No. 18-242] - Public Works Manager John Wrobel provided an overview of the proposed roadway improvements to Mountain View Lane, Yucaipa.
- B. Overview of Proposed Sewer Mainline Repairs in Wildwood Creek, Yucaipa [Workshop Memorandum No. 18-243] - John Wrobel provided an overview of the proposed sewer mainline repairs in Wildwood Creek.

VI. Administrative Items

- A. Consideration of Approving Anticipated Reimbursable Expenses for Board Member Participation at the Association of California Water Agencies Conference [Workshop Memorandum No. 18-244] - General Manager Joseph Zoba provided an overview of the Association of California Water Agencies Conference in November 2018.

VII. Director Comments - None

VIII. Announcements - The future meetings were referenced on the workshop agenda.

IX. Closed Session - A closed session was not conducted at this meeting.

X. Adjournment - The meeting was adjourned at 4:50 p.m.

Respectfully submitted,

Joseph B. Zoba, Secretary

Staff Report



Yucaipa Valley Water District

Direct Potable Reuse Is in California's Future

By Michael R. Markus P.E., D.WRE.



TODAY, RECYCLED WATER FROM the Orange County Water District (OCWD) — 103,000 acre-feet (AFY) per year — is recharged into the Orange County Groundwater Basin through the district's Groundwater Replenishment System (GWRS). The GWRS is the world's largest potable reuse facility and is key in providing OCWD's member agencies a reliable source of water in a water-scarce region. Many other water agencies in California would like to recycle their wastewater to add to their water supplies and are unable because regulations exist only for groundwater replenishment or reservoir augmentation.

This may soon change through revised regulations allowing direct potable reuse (DPR).

In California, DPR includes any potable reuse that does not involve a substantial environmental buffer, such as that provided by significant retention time in a groundwater aquifer or a surface water reservoir. Types of DPR include advanced purified recycled water serving as a source water into a drinking water treatment facility and water flowing directly from an advanced recycled water facility into a drinking water distribution system.

A report was recently given to the State Water Resources Control Board's Division of Drinking Water (DDW) by an expert panel that was created through prior legislation (California Senate Bill 918) that stated that it is feasible for DDW to develop criteria for DPR. The report also assessed the need for additional research to address potential health risks. That research is currently being done and should be completed within the next couple of years.

Another piece of legislation was passed last year (California Assembly Bill 574) establishing a 2023 deadline for DDW to develop a policy and sequential regulations for direct potable reuse, which are consistent with the newly issued DPR



Orange County Water District gave away bottles of purified wastewater to passers-by in Hollywood as part of a taste-test tour in summer 2017.

report. The DPR regulations that DDW must develop will include treatment criteria and monitoring requirements to assure that the product water from advanced water purification is at all times safe, pure, wholesome, and potable.

Potable reuse is gaining support with legislators, but there is one major hurdle to broader acceptance of DPR: Many members of the general public still experience the "yuck" factor — that gut-wrenching reaction when thinking about the wastewater source rather than the quality of the final product water.

During the 1990s, a series of surveys performed by the WaterReuse Research Foundation, OCWD, and other water agencies determined that the following must be in place in order for the public to support water reuse projects: People must trust the agency that is proposing the project; there must be a real need for the water and the benefits of building a potable water reuse project must be clear; the technology needs to be explained; and

there need to be reliable monitoring and safeguards in place to assure that water quality is exceptional and consistently safe. Medical professionals, public health regulators, and environmentalists need to understand and support the project. Agencies have to be transparent about the source of the water. Finally, seeing (and tasting) is believing.

Following these guidelines resulted in greater public understanding and confidence and a winning campaign that led to the creation of the GWRS and other projects. It can do the same for DPR, and that process has already begun.

During a successful bottled water campaign from March 2017 to February 2018, OCWD and its GWRS partner, the Orange County Sanitation District (OCS), took bottles of GWRS water and water reuse information to more than 17,000 people throughout California to overcome toilet-to-tap misconceptions, gain support of water reuse for future infrastructure and program investments, and plant the seed

ALL PHOTOS COURTESY OF ORANGE COUNTY WATER DISTRICT



Joseph Flint, lead maintenance technician of Orange County Water District, checks UV lights in the treatment facilities of the Groundwater Replenishment System.

for acceptance of DPR.

From July 2017 to June 2018, OCWD surveyed nearly 2,000 guests, before and after tours of GWRS, asking about their attitudes toward Indirect Potable Reuse (IPR) and DPR. Acceptance of IPR as part of their drinking water supply increased from 75 to 92 percent, supporting or

strongly supporting it. When asked how they felt about it flowing directly to their tap, numbers dropped slightly, with 86 percent supporting or strongly supporting. These numbers are very promising.

Wastewater should not be considered a waste. It is a valuable resource that needs to be reused. Our Board of Directors and

our partners at OCSD are committed to recycling as much wastewater as we can. In fact, we are looking to expand the GWRS to produce 134,000 AFY of recycled water. In order to produce that much water, we will be taking 100 percent of OCSD's recyclable flows. We hope that by setting this example, others will strive to do the same. Having DPR regulations in place, and continued engagement and education, will make more potable reuse projects a reality. 💧

FURTHER READING

Olivieri, A.W., Crook, J., Anderson, M.A., Bull, R.J., Drewes, J.E., Haas, C.N., Jakubowski, W., McCarty, P.L., Nelson, K.L., Rose, J.B., Sedlak, D.L., and Wade, T.J. (2016). *Expert panel final report: Evaluation of the feasibility of developing uniform water recycling criteria for direct potable reuse*. National Water Research Institute for the State Water Resources Control Board: Sacramento, CA.

Source: California - Nevada Section AWWA, Source Magazine, Volume 32, Number 4, Fall 2018, page 16

Discussion Items



Yucaipa Valley Water District



Date: November 6, 2018

Prepared By: Joseph Zoba, General Manager

Subject: Authorization to Conduct Pilot Recharge Testing to Evaluate the Long-Term Infiltration Rates in the Western Portion of the Beaumont Basin

Recommendation: That the Board authorize the General Manager to execute a contract with Geoscience for a sum not to exceed \$326,956.

Like most water agencies in the arid southwest, the Yucaipa Valley Water District is confronted with increased drinking water demands due to the increased population and limited local water supplies. The Yucaipa Valley Water District is somewhat unique given the strict regulatory requirements that necessitate desalination of recycled water supplies to protect local groundwater basins pursuant to the 2004 Regional Water Quality Control Basin Plan for the Santa Ana Region.

To address a wide range of regional issues, the District has developed the Yucaipa Valley Regional Water Supply Renewal Project to accomplish the following objectives:



REGIONAL BENEFITS:

- Provides the Yucaipa Valley with a renewable water resource that will be a reliable water supply in the upper Santa Ana Watershed.
- Protects and enhances the regional groundwater quality by exporting concentrated salt brine that would normally accumulate through typical water use.
- Reduces the critical overdraft of the Yucaipa, Beaumont, and San Timoteo basins by reducing the fresh water production from the local groundwater supplies.
- Encourages economic and environmental growth of the region by balancing water demands.

WATERSHED BENEFITS:

- Equips the Wochholz Regional Water Recycling Facility with advanced treatment including reverse osmosis to achieve an advanced, pure, and renewable water resource.
- Protects water quality in the lower Santa Ana Watershed by maintaining high quality water in the upper watershed as the water of the upper basins eventually flows to the downstream basins.

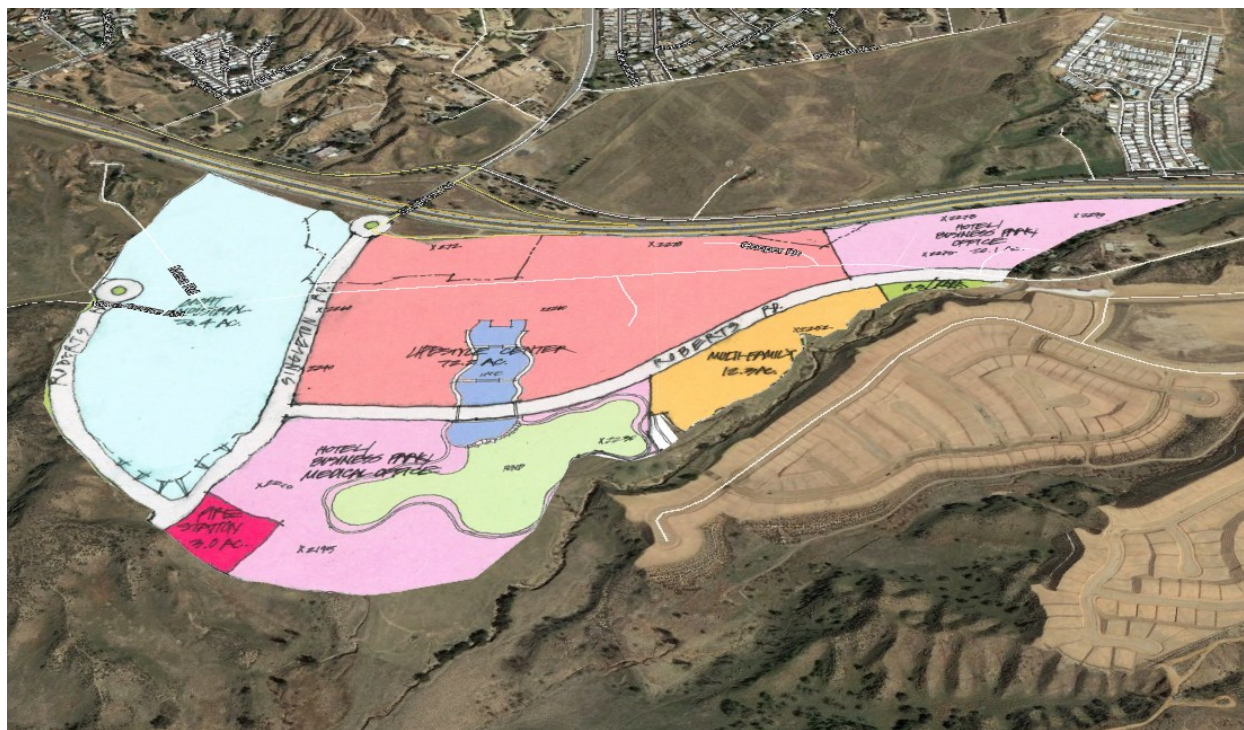
- Relies upon the Inland Empire Brineline, originally constructed by the Santa Ana Watershed Authority, and a 15-mile extension constructed by the Yucaipa Valley Water District.
- The Yucaipa Valley Water District is capable of achieving a zero-discharge providing the ultimate protection of downstream water resources consistent with the goals of the Clean Water Act.

STATE OF CALIFORNIA BENEFITS:

- Reduces the need for water to be imported from northern California that would normally be required to meet future water demands.
- Conservation, including efficiency water use and reclamation, is consistent in protecting the best interest of the State of California.

The Yucaipa Valley Regional Water Supply Renewal Project

The Yucaipa Valley Regional Water Supply Renewal Project is an innovative salinity control project that will effectively eliminate the buildup of minerals in the Yucaipa Valley that degrade drinking water supplies. The overall project involves expanded reverse osmosis infrastructure at the Yucaipa Valley Regional Water Filtration Facility (Salinity Concentrate Reduction and Minimization “SCRAM” System); an expanded reverse osmosis and treatment infrastructure at the Wochholz Regional Water Recycling Facility (Salinity and Groundwater Enhancement “SAGE” Project); and a recharge facility at the Calimesa Lake and Spreading Basins. Coupled with the District’s aggressive recycled water program, these projects will minimize the amount of water imported from the fragile ecosystem in northern California and allow for the maximum use of high-purity recycled water.

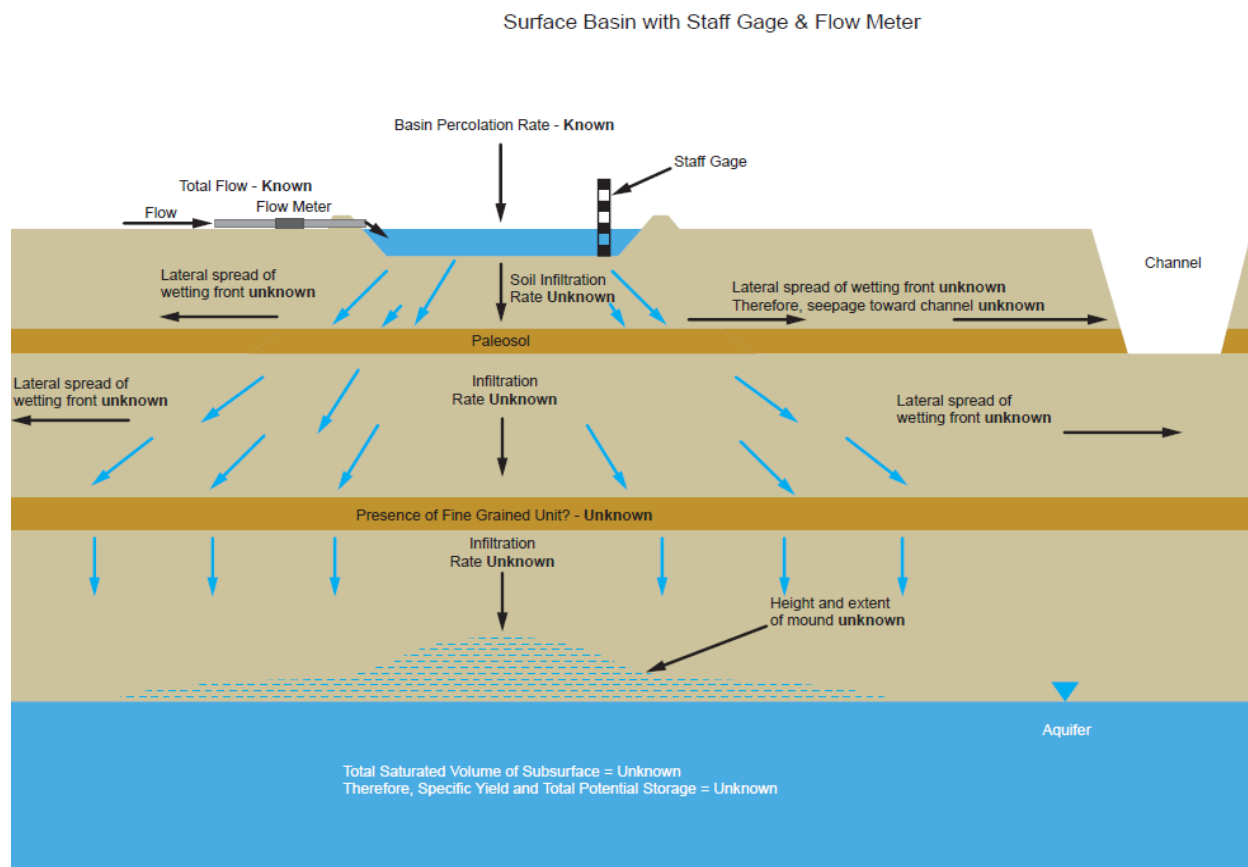


Long-Term Infiltration Study for the proposed Calimesa Lake and Spreading Basins

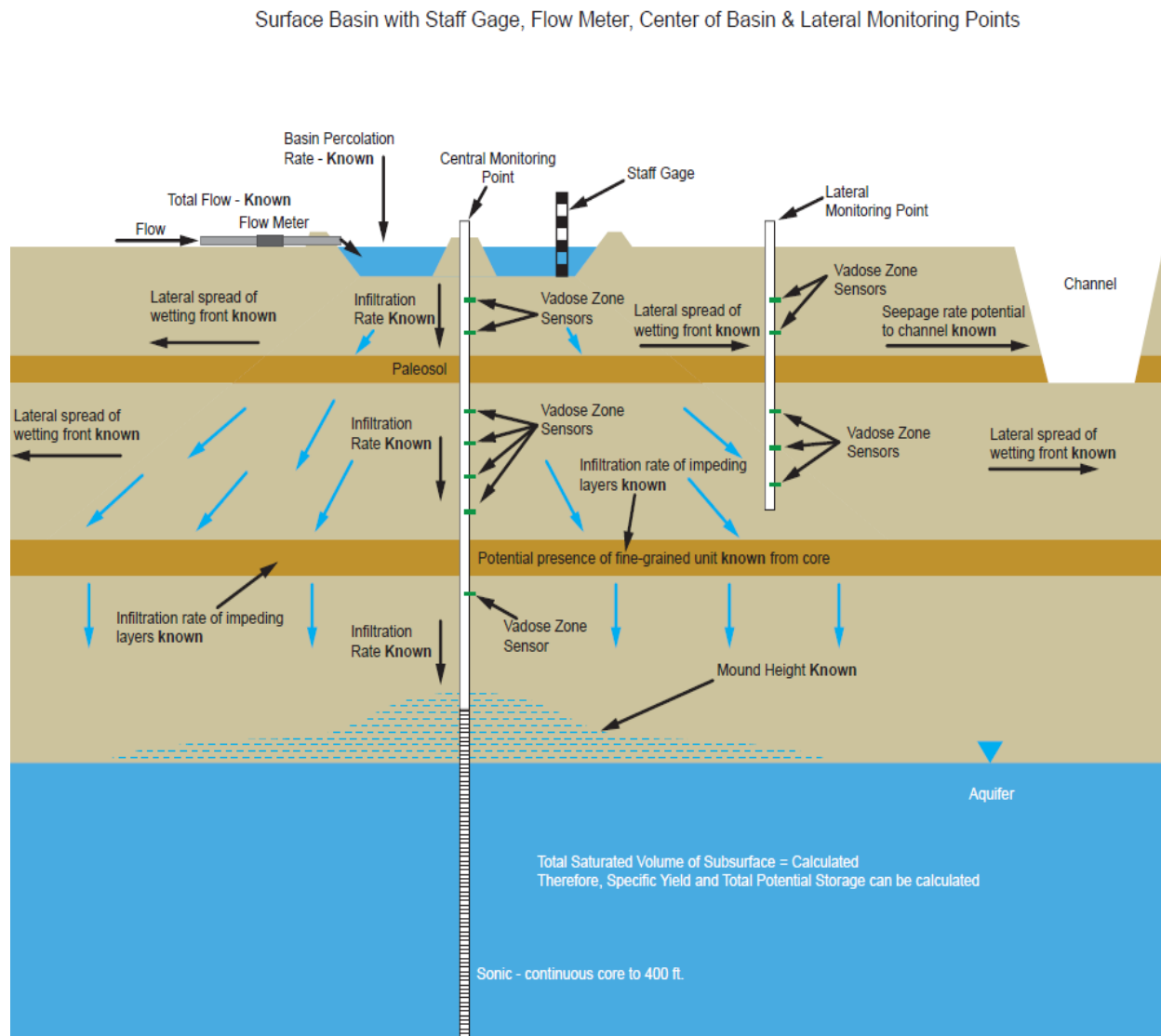
The District staff has been working with Geoscience for the development and operating plan for the proposed Calimesa Lake and Spreading Basins. Based on a thorough evaluation and study of the groundwater basin, the District will be able to effectively operate and manage the westerly portion of the Beaumont Basin consistent with the [adjudication](http://www.beaumontbasinwatermaster.org/) overseen by the Beaumont Basin Watermaster (<http://www.beaumontbasinwatermaster.org/>)



The District staff recognizes that a limited recharge study would not be sufficient in this case to answer all of the pending questions and issues. As shown in the illustration below, by simply measuring the percolation rate of the basin, there would be several other factors that remain unresolved.



Therefore, the attached scope of services was developed to utilize a methodology with monitoring wells that will be able to determine: the water mounding effect; the lateral movement of subsurface water; the infiltration rate in the vadose zone; all used to calculate the specific yield and total potential of storage when the spreading basins are constructed.



The District has received written authorization from the property owner to conduct the work at this location.

Financial Analysis

This project is not included in the current operating budget. Funds for this project will be split equally between the Water Division - Depreciation Reserves (02-10310) and Sewer Division - Depreciation Reserves (03-10310).



September 26, 2018

Mr. Joe Zoba
General Manager
Yucaipa Valley Water District
Post Office Box 730
Yucaipa, California 92399-0730

**Subject: Proposal to Conduct Pilot Recharge Test to Evaluate Long-Term Infiltration Rates
At Proposed Oak Valley Town Center, Calimesa, California**

Dear Joe:

Per your previous authorizations we have completed two phases of initial work to assess the feasibility of a recharge project at the proposed Oak Valley Center in Calimesa, California. The first phase of work (Task1) consisted of review of both published and unpublished geologic information and construction a lithologic model using approximately 40 driller's logs in the site vicinity. The purpose of Task 1 was to assess whether there were in any continuous fine-grained lithologic units in the subsurface that could impede the downward movement of surface recharge. The lithologic model suggested that there were fine-grained lithologic units in the subsurface, but the distribution might be related to a USGS mapped fault which is shown to traverse the site. The most recent phase of work (Task 2) was site geologic mapping and completion of a seismic reflection survey across the site in the vicinity of the proposed area of a recharge basin. The purpose of Task 2 was to evaluate the distribution and configuration of subsurface lithologic units and to evaluate the configuration of faulting in the subsurface. The seismic reflection data collected showed that the site is underlain by permeable alluvial material to a depth of at least one hundred feet (Qya_s) below ground surface which in turn is underlain by the permeable Pleistocene aged Live Oak sedimentary units (Qlo) to a depth of approximately 300 feet. The Live Oak unconformably overlies the San Timoteo formation (Tstm). Although, the San Timoteo fault is shown to cross the site, the seismic reflection data indicates that the fault does not offset material within the upper 300 feet below ground surface. The inset below shows the seismic reflection profile and geologic interpretation.

GEOSCIENCE SUPPORT SERVICES INCORPORATED

Ground Water Resources Development

P.O. Box 220, Claremont, CA 91711

T: 909-451-6650

F: 909-451-6638

Proposal to Conduct Pilot Recharge Test to Evaluate Long-Term Infiltration Rates
At Proposed Oak Valley Town Center, Calimesa, California.

26-Sep-18

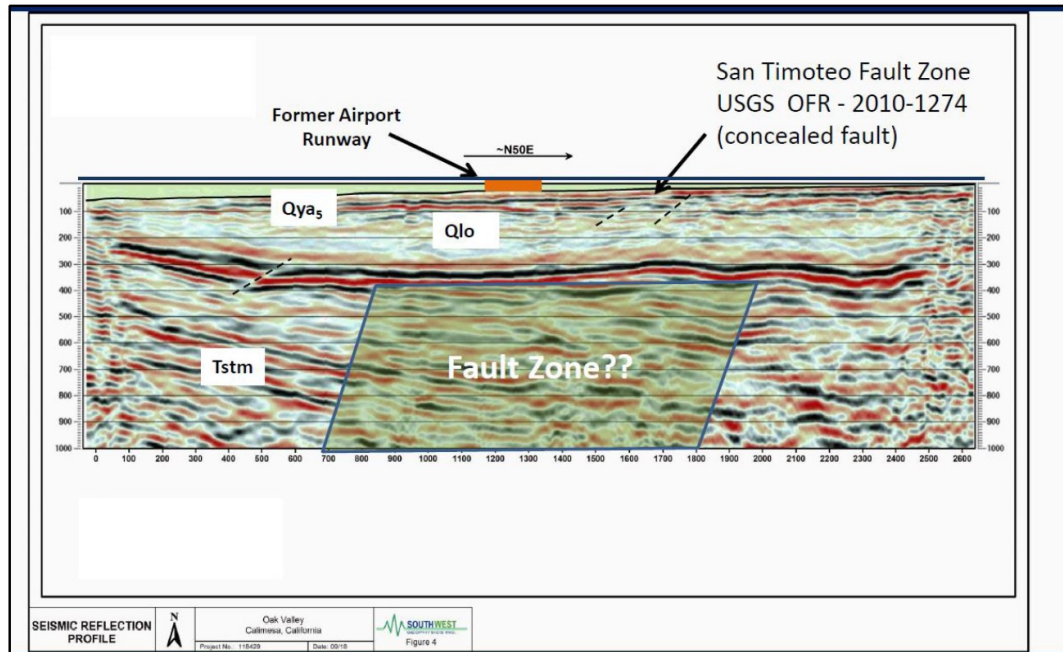


Figure 1 - Seismic Reflection Profile

Surface geologic mapping of exposures in channels that are present on both the eastern and western edges of the site, show buried older soils (paleosols) that likely extend across the site a depths below approximately 25 feet below ground surface. The inset below shows two soil horizons that are present in the subsurface at the site.

Proposal to Conduct Pilot Recharge Test to Evaluate Long-Term Infiltration Rates
At Proposed Oak Valley Town Center, Calimesa, California.

26-Sep-18

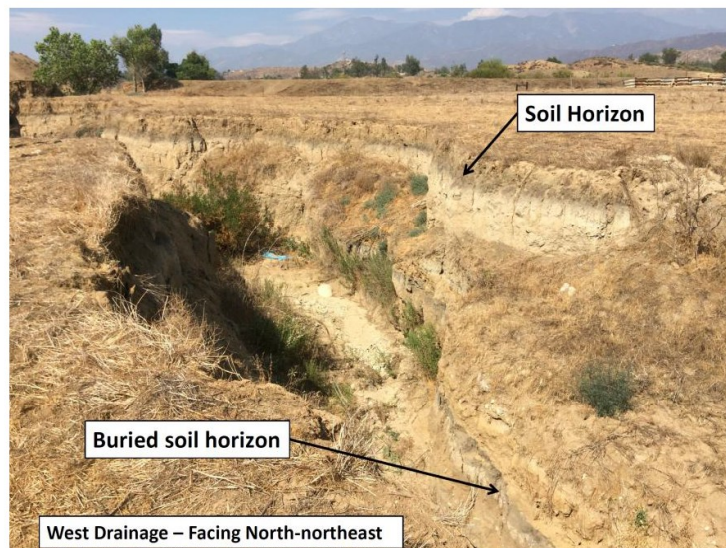


Figure 2 – Westerly Channel Exposure Showing an Upper and Lower Soil Horizon

Therefore, the purpose of this phase of the feasibility study is to 1) determine the lithologic materials in the vadose zone beneath the proposed recharge site area, 2) Measure the vertical rate of infiltrating water through the subsurface lithologic material, and 3) evaluate the extent of the horizontal movement of infiltrating water to ensure that percolating water will migrate vertically to the groundwater table. To do this a one-half acre pilot recharge basin will be constructed. Two monitoring points will be constructed, one in the center of the pilot recharge basin and another between the pilot recharge basin and the easterly channel. Water will be infiltrated in the pilot recharge basin until migrating wetting front reaches the groundwater table beneath the site. The vertical rate of infiltration through the vadose zone will be determined using vadose zone instrumentation coupled with a piezometer to be constructed in the center of the pilot recharge basin. The horizontal rate of movement of the wetting front will be determined through use of a second vadose zone instrumentation site to be located approximately 250 feet from the pilot recharge basin, a location midway from the pilot recharge basin and the easterly channel. The inset below shows the approximate location of the pilot recharge basin and monitoring points.

Proposal to Conduct Pilot Recharge Test to Evaluate Long-Term Infiltration Rates
At Proposed Oak Valley Town Center, Calimesa, California.

26-Sep-18

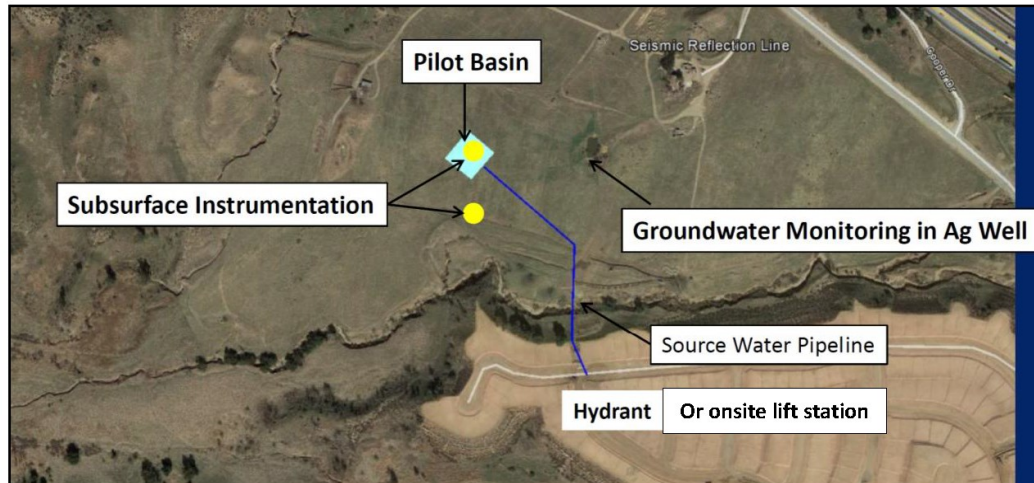


Figure 3 – Pilot Recharge Test Basin Location and Monitoring Points

The descriptions below provide an overview of the major portions of the pilot recharge investigation. Table 1 attached provides details of each component of the proposed work.

Task 3 - Installation of Vadose Zone and Groundwater Monitoring Points

Prior to construction of the pilot test basin, the site specific stratigraphy will be investigated using a sonic drilling rig and collection of continuous core to a depth of approximately 400 feet. The purpose of drilling to 400 feet is to collect lithologic samples for future extraction well design. The borehole will be drilled in the center of the selected area of the pilot basin. After completion of the borehole, a geophysical survey will be conducted to aid interpretation of the depths of lithologic contacts. After completion of the geophysical survey, the lower approximately 200 feet will be backfilled with bentonite. A 2-inch monitoring well will be constructed in the boring, with approximately 60 feet of screen starting from approximately 20-feet above the water table as encountered in the boring. The monitoring well will be equipped with a pressure transducer which will be used to indicate the time at which the wetting front reaches the groundwater table and the height of the groundwater mound as infiltration testing continues. The monitoring well will be developed using a pump. At the end of the development period a ground water sample will be collected and analyzed for general mineral, general physical, selected pesticides, and oil and grease.

The vadose zone will be equipped with moisture and temperature sensors. The sensors will be attached to the blank well casing between at 15-ft intervals between 10-ft and 100 ft below ground surface. The sensors will be activated as the wetting front from the surface recharge moves downward. The rate of infiltration will be calculated between sensors and compared to the lithologic log. The

Proposal to Conduct Pilot Recharge Test to Evaluate Long-Term Infiltration Rates
At Proposed Oak Valley Town Center, Calimesa, California.

26-Sep-18

specific yield of the sediments will be calculated using the extent of wetting front migration along with the volume of recharge water placed into the basins.

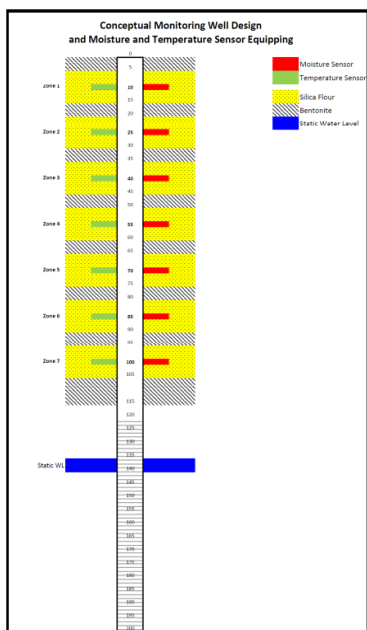


Figure 4A - Schematic Center Basin Monitoring Installation

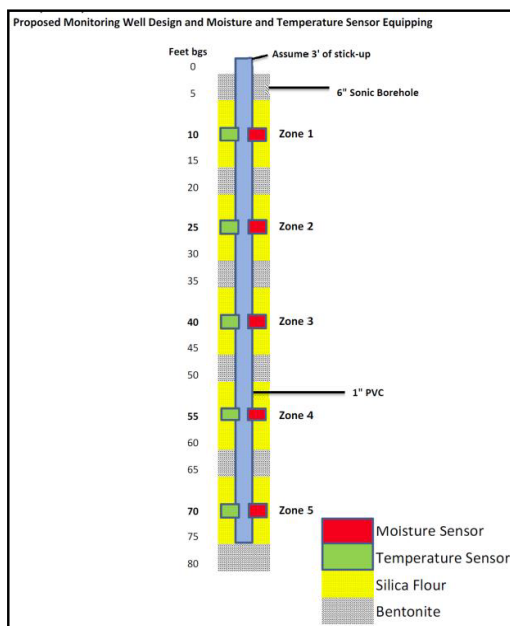


Figure 4B - Schematic of Second Monitoring Installation

A second vadose zone monitoring point will be constructed in like fashion to a depth of 80 feet. The location of the second vadose zone monitoring point will be approximately 250 feet south of the pilot recharge basin, a location approximately half way between the pilot recharge basin and the easterly channel. Sensors will be placed in 15-ft intervals from 10 feet to 70 ft below ground surface. The purpose of the second vadose monitoring point is to assess the lateral rate of movement of the wetting front and to ensure that infiltrating water does not reach the easterly channel above the invert elevation of the channel. The specific subtasks associated with Task 3 are shown on Table 1

Task 4 - Pilot Testing - Artificial Recharge Basin Construction and Monitoring.

A one-half acre basin will be constructed for the pilot recharge test. The depth of the basin will be such that the footprint of the basin is below the shallow clayed soil horizon shown on the photograph in Figure 2 above. The depth of the shallow soil profile will be verified with the boring. Water will be

Proposal to Conduct Pilot Recharge Test to Evaluate Long-Term Infiltration Rates
At Proposed Oak Valley Town Center, Calimesa, California.

26-Sep-18

provided to the test basin site by YVWD. The basin will be constructed with 3:1 inner slopes. The material excavated from the basin will be stockpiled a minimum of five feet from the edge of the basin. A temporary security fence will be installed around the perimeter of the basin and around the second monitoring installation. At the basin site Geoscience will install a totalizing flow meter and control valve to allow maintaining a constant head in the basin and record the total flows in the basin with time. The pilot recharge basin will be equipped with a staff gage and stilling well in which a pressure transducer will be placed to provide a continuous recording of water levels during the test. The information from the monitoring installation (vadose and groundwater) and the water levels and flow into the basin will be collected continuously and remotely. In addition, the on-site inactive agricultural water well will be equipped with a transducer to measure groundwater levels during the test period. The instrumentation will be field checked three times during the first week and weekly thereafter until the end of the test. However, if remote data indicates a problem with water levels or flow rates, Geoscience personnel will go immediately to the site to resolve any issues that might arise. We will continue to test the infiltration rates and volumes for a period of two weeks after the surface wetting front reaches the groundwater surface. We anticipate that the total test period will be from four to six weeks.

The recharge rate will be calculated weekly and provided to the District as a part of a weekly e-mail progress report. After the test period, fencing and will be removed and the soil excavated from the basin will be replaced in the excavation and wheel rolled. We assume that the monitoring well will remain onsite for monitoring of future recharge operations. The second monitoring point will be excavated down to a depth of 20-ft and backfilled with site soils.

Task 5 - Summary Report (Tasks 1 through 4)

Geoscience will prepare report presenting all of the data collected and analysis completed as a part of recharge feasibility study for the Oak Valley Center. The report will provide assessment of the long-term infiltration rates and the anticipated available groundwater storage at the site under current groundwater conditions. To evaluate long-term operational strategies including conditioning the groundwater basin, evaluation of put and take scenarios, and determination of travel time and recycled water percentage in the groundwater aquifer with time, we recommend that an appropriate groundwater model be constructed for the project area. A draft report will be submitted to the District for review and comment. Geoscience will incorporate District comments and prepare and submit the final feasibility report.

Task 6 – Meetings and Presentations

Geoscience will prepare weekly e-mail progress reports to the District. We plan to have an onsite kick-off meeting with District to go over the pilot test recharge program and all activities associated with the program. After three weeks of testing, Geoscience will provide host a progress meeting at the site to go over the results of the testing. Geoscience will provide a summary of the test results immediately after

Proposal to Conduct Pilot Recharge Test to Evaluate Long-Term Infiltration Rates
At Proposed Oak Valley Town Center, Calimesa, California.

26-Sep-18

the end of the test and completion of data analysis but prior to submission of the draft report. Geoscience will meet with the District to go over the feasibility study and pilot test results after submission of the draft. Therefore we assume three face-to face meetings with the District for the project.

Our estimate of costs to complete the work will be based on time and materials as estimated on the attached table. If you have any questions regarding the proposed work or costs, please call me at (909) 451-6650. Thank you for the opportunity to continue to assist the District in this important project.

Sincerely,



Brian Villalobos, CEG, CHG.

Principal

Encl.

Yucaipa Valley Water District

Table 1

Planning Level Cost Proposal for Professional Hydrogeological Services Related to
Pilot Recharge Test to Evaluate Long-Term Infiltration Rates At Proposed Oak Valley Town Center, Calimesa, California

Task Description			GEOSCIENCE SUPPORT SERVICES, INC.										
			Principal Geohydrologist	Project Geohydrologist	Staff II Geohydrologist	CAD/GIS Operator	Clerical	GEOSCIENCE Labor	Subcontractor Labor	Reimbursable Expenses ¹	Temporary Equipment	Total Cost	
Hourly Rate:			\$240	\$195	\$150	\$119	\$100						
3.0	Installation of Vadose Zone and Groundwater Monitoring Points												
	3.1	Program Development and Preparation	4	25	36			\$ 11,235	\$ -	\$ -	\$ -	\$ 11,235	
	3.2	Site Visit with Client and Contractors	5	5				\$ 2,175	\$ -	\$ 500	\$ -	\$ 2,675	
	3.3	On-Site During Drilling of One 6" Dia. Sonic Pilot Borehole to Approximately 400 feet bgs	5	18	36			\$ 10,110	\$ 84,258	\$ 3,000	\$ -	\$ 97,368	
	3.4	Collection & Logging of Formation Cores Using the Unified Classification System (USCS) During Pilot Borehole Drilling	2		16			\$ 2,880	\$ -	\$ -	\$ -	\$ 2,880	
	3.5	On-Site During Geophysical Survey of Pilot Borehole to 400 ft bgs (includes installation of a temporary 4" Dia. Sch. 80 PVC screen to bottom of the borehole)	1	2	8			\$ 1,830	\$ 2,228	\$ 250	\$ -	\$ 4,308	
	3.6	Mechanical Grading Sieve Analysis (assume four [4] formation samples)		1	6			\$ 1,095	\$ -	\$ -	\$ -	\$ 1,095	
	3.7	Provide Recommended Final Well Design (including gravel pack gradation, slot size, perforated and blank casing depths and diameters, depth of annular seal, and moisture and temperature sensor installation depths)	2	8	4	2	1	\$ 2,978	\$ -	\$ -	\$ -	\$ 2,978	
	3.8	On-Site During Backfilling of Pilot Hole to 205 ft bgs with Bentonite		2	8			\$ 1,590	\$ -	\$ 250	\$ -	\$ 1,840	
	3.9	On-Site During Sonic Reaming of Pilot Borehole to 10" Dia. to Approximately 205 feet bgs		2	10			\$ 1,890	\$ -	\$ 250	\$ -	\$ 2,140	
	3.10	On-Site During 2" Dia. Sch. 80 PVC 205 ft Monitoring Well Construction; Installation of Filter Pack, Bentonite Seals, and Annular Seal (full-time observation)		2	8			\$ 1,590	\$ -	\$ 250	\$ -	\$ 1,840	
	3.11	On-Site During Bailing of Sediments From Bottom of Monitoring Well			3			\$ 450	\$ -	\$ -	\$ -	\$ 450	
	3.12	On-Site During Pumping Development and Water Quality Sampling of Monitoring Well (including cost for laboratory water quality analyses)		2	8			\$ 1,590	\$ 937	\$ 250	\$ -	\$ 2,777	
	3.13	On-Site During installation of 4'x4'x4' Cement Pedestal, Lockable Steel Monument, and One Steel Pole for Mounting Data Logger Boxes and Telemetry.		4	8			\$ 1,980	\$ -	\$ 500	\$ -	\$ 2,480	
	3.14	On-Site During Installation of 7 Pairs of Soil Moisture and Temperature Monitoring Sensors (attached to outside of monitoring well)	2	4	5			\$ 2,010	\$ -	\$ 4,487	\$ -	\$ 6,497	
	3.15	On-Site During Drilling of One 6" Dia. Sonic Borehole to Approximately 80 feet bg	2	4	12			\$ 3,060	\$ -	\$ 500	\$ -	\$ 3,560	
	3.16	Collection & Logging of Formation Cores Using the Unified Classification System (USCS) During Borehole Drilling	1	2	4			\$ 1,230	\$ -	\$ -	\$ -	\$ 1,230	
	3.17	Provide Recommended Final Borehole Equipping Design (including moisture and temperature installation depths)	2	8	4	2	1	\$ 2,978	\$ -	\$ -	\$ -	\$ 2,978	

Yucaipa Valley Water District

Table 1

Planning Level Cost Proposal for Professional Hydrogeological Services Related to
Pilot Recharge Test to Evaluate Long-Term Infiltration Rates At Proposed Oak Valley Town Center, Calimesa, California

Task Description			GEOSCIENCE SUPPORT SERVICES, INC.									
			Principal Geohydrologist	Project Geohydrologist	Staff II Geohydrologist	CAD/GIS Operator	Clerical	GEOSCIENCE Labor	Subcontractor Labor	Reimbursable Expenses ¹	Temporary Equipment	Total Cost
Hourly Rate:			\$240	\$195	\$150	\$119	\$100					
	3.18	On-Site During 1" Dia. Sch. 80 PVC 75 ft Observation Borehole Monitoring Apparatus Construction; Installation of Silca Flour, Bentonite Seals, and Annular Seal (full-time observation)	1	2	8			\$ 1,830	\$ -	\$ 250	\$ -	\$ 2,080
	3.19	On-Site During Installation of 5 Pairs of Soil Moisture and Temperature Monitoring Sensors (attached to outside of PVC)	1	4	5			\$ 1,770	\$ -	\$ 3,958	\$ -	\$ 5,728
	3.20	On-Site During installation of Conduit and One Steel Pole for Mounting Data Logger Boxes and Telemetry.		1	6			\$ 1,095	\$ -	\$ 250	\$ -	\$ 1,345
	3.21	On-Site During Wiring of Monitoring Equipment, Telemetry System, and Setup of Data Loggers at Monitoring Well and Observation Boring Sites	1	2	8			\$ 1,830	\$ 3,520	\$ 250	\$ -	\$ 5,600
	3.22	As Needed Project Management Support	5	10				\$ 3,150	\$ -	\$ -	\$ -	\$ 3,150
		Subtotal	34	108	203	4	2	\$ 60,346	\$ 90,943	\$ 14,945	\$ -	\$ 166,234
4.0	Pilot Testing - Artificial Recharge Basin Construction and Monitoring											
	4.1	One Site Visit During Construction of Recharge Basin and One During Basin Backfilling/Restoration of Site	6	12				\$ 3,780	\$ 21,970	\$ 500	\$ -	\$ 26,250
	4.2	On-Site For Installation of Flowmeter, Flow Control Valves, Staff Gage, Two Stilling Wells, Sonic Sounder (pond level), and Telemetry	10		10			\$ 3,900	\$ 1,500	\$ 1,420	\$ 5,508	\$ 12,328
	4.3	On-Site for Installation of Temporary Security Fencing around Recharge Basin and Observation Boring			4			\$ 600	\$ 3,300	\$ 250	\$ -	\$ 4,150
	4.4	On-Site to Install Pressure Transducers in One New Monitoring Well and One Existing Agriculture Well/Observation Well (2 Transducers Total)		1	4			\$ 795	\$ -	\$ 2,263	\$ 162	\$ 3,220
	4.5	On-Site for Start of Infiltration Test and Equipment Check	4	6				\$ 2,130	\$ -	\$ 500	\$ -	\$ 2,630
	4.6	On-Site For Hand Water Level and Downloading Monitoring Well and Observation Well Transducers, and ALL Moisture and Temperature Sensor Data (assume 9 visits for 6-weeks)	8	16	42			\$ 11,340	\$ -	\$ -	\$ -	\$ 11,340
	4.7	As Needed Project Management Support	4	8				\$ 2,520	\$ -	\$ -	\$ -	\$ 2,520
	Subtotal	32	43	60	0	0	\$ 25,065	\$ 26,770	\$ 4,933	\$ 5,670	\$ 62,438	
5.0	Reporting											
	5.1	Prepare Weekly Plots of Data (Water Levels, Moisture and Temperature Sensor Data)	6	12	32			\$ 8,580	\$ -	\$ -	\$ -	\$ 8,580
	5.2	Prepare DRAFT Infiltration Test Results Report	8	24	32	16		\$ 13,304	\$ -	\$ -	\$ -	\$ 13,304
	5.3	Prepare FINAL Infiltration Test Results Report	4	8	12	8		\$ 5,272	\$ -	\$ -	\$ -	\$ 5,272

Yucaipa Valley Water District

Table 1

Planning Level Cost Proposal for Professional Hydrogeological Services Related to
Pilot Recharge Test to Evaluate Long-Term Infiltration Rates At Proposed Oak Valley Town Center, Calimesa, California

Task Description			GEOSCIENCE SUPPORT SERVICES, INC.									
			Principal Geohydrologist	Project Geohydrologist	Staff II Geohydrologist	CAD/GIS Operator	Clerical	GEOSCIENCE Labor	Subcontractor Labor	Reimbursable Expenses ¹	Temporary Equipment	Total Cost
Hourly Rate:			\$240	\$195	\$150	\$119	\$100					
		Subtotal	18	44	76	24	0	\$ 27,156	\$ -	\$ -	\$ -	\$ 27,156
6.0	Meetings, Presentations, and Ongoing Evaluation of Data											
	6.1	Meetings with Client to Present Initial and Final Results of the Study (3 Total) and Weekly Progress e-mails	24	40	16	4	2	\$ 16,636	\$ -	\$ -	\$ -	\$ 16,636
		Subtotal	24	40	16	4	2	\$ 16,636	\$ -	\$ -	\$ -	\$ 16,636
TOTAL HOURS AND COST (TASKS 3-6):			108	235	355	32	4	\$ 129,203	\$ 117,713	\$ 19,878	\$ 5,670	\$ 272,464
TOTAL COST WITH 20% CONTINGENCY (TASKS 3-6):			\$ 326,956									

Notes:

¹ Reimbursable expenses include mileage, field per diem at \$250/day and report mailing and reproduction costs.



Date: November 6, 2018

Prepared By: John Wrobel, Public Works Manager

Subject: Authorization to Execute a Contract with J.B. Paving & Engineering for Roadway Improvements to Mountain View Lane, Yucaipa

Recommendation: That the Board authorize the General Manager to execute a contract with J.B. Paving & Engineering for a sum not to exceed \$105,250.

The District staff continuously evaluates the condition of the water system infrastructure on a regular basis. Through this evaluation, the District is able to identify water mainlines and other assets that are in need of repair or replacement.

The water mainline on Mountain View Lane was an old 4-inch steel pipe that was subject to numerous leaks. The District staff replaced 1,200 linear feet of water main, replaced twenty-four services, three hydrants, and an air vacuum appurtenance. To complete this project, the District staff recommends repaving this private street.



District staff solicited three bids from local paving contractors with the following results.

Contractor	Amount
JB Paving	\$105,250
Roquet Construction	\$107,711
PacWest Engineering	\$115,640

Based on the results above, the District staff recommends that the Board of Directors award the contract to JB Paving for a sum not to exceed \$105,250.

Financial Analysis

Funding for this expense will be from Water Fund, Public Works, R & M Pipelines [GL Account #02-5-03-51020]. This was not included in the 2018-19 budget. A budget adjustment will be presented to the Board for recommended approval at a future meeting.

JB Paving & Engineering, Inc.
32425 Dunlap Blvd. Yucaipa, CA 92399
Office: 909-335-7428 Fax: 909-335-8952
State Contractor's License 998980

Proposal

Date: 10-20-17

Revised bid 10-4-18

To: YVWD
Attn: Jessie
Re: Mt View Lane Yucaipa

Entire road rehab

- 1) Pulverize all existing asphalt in place, approx. 42,000 SF.
- 2) We are pulverizing at curb face, not replacing old asphalt berms.
- 3) This bid includes up to 150 LF. of new header board.
- 4) Fine grade and compact pulverized material.
- 5) Haul off minimal spoils as needed.
- 6) Apply weed kill and install 4-inch new asphalt.

Total \$105,250.00

Jim Brothers
909-772-7144

Roquet Construction, Inc.

P.O. Box 2677
 Riverside, CA 92516
 (951) 233-3894

ROQUETCONSTRUCTION@GMAIL.COM
 License # 455828

PROPOSAL/CONTRACT NO. 101118-1

To:

Yucaipa Valley Water District
 12770 2nd Street
 Yucaipa CA 92399

October 11, 2018

Roquet Construction Inc.
 Estimator: Joe Roquet
 (951) 453.1228

Phone: (909) 797.5117

Attn: Jesse McCartney

Email: jmccartney@yvwd.us

JOB LOCATION: Douglas (and) Mt. View - Yucaipa

We hereby submit specifications and estimates for:

<i>Item</i>	<i>quantity</i>	<i>unit price</i>	<i>total</i>
-------------	-----------------	-------------------	--------------

DOUGLAS

- Sawcut, remove and replace water patch crossing on Douglas with 4" asphalt (2 lifts) over native subgrade: Approx. 180 sq. ft.

Mt. View

- Pulverize entire roadway and leave grindings in place (within 12" of AC berm).
- Re-grade subgrade dirt and grindings to new street design to create high crown and better drainage and compact.
- Fine grade same area.
- Apply weed sterilant to all areas getting paved.
- Raise sewer manholes on east west section of roadway only to create better drive elevations: 2/each
- Place 4" asphalt (one-lift) and compact with 10 ton roller: Approx. 42,000 sq. ft.
- Install 125' 2x4 Redwood Header.

LUMP SUM \$107,711.00**Notes:***Only items specifically listed above are part of this contract.**Includes one move.**Excludes over-x of subgrade.**RCI not responsible for poor subgrade due to the existing condition of the street.*



DATE: 10/9/2018
QUOTE #: 180548
BID EXPIRES: 1/7/2019
ESTIMATOR: EDWARD TORRES

PROPOSAL / CONTRACT

COMPANY: YUCAIPA VALLEY WATER DISTRICT
ADDRESS: 12770 SECOND STREET
YUCAIPA, CA 92399
PROJECT: MOUNTAIN VIEW LANE
CITY: YUCAIPA, CA
PROJECT #:
CONTACT: JAMIE CANSLER
OFFICE #: 909.797.5117
CELL #:
FAX #:
EMAIL: JCANSLER@YVWD.US

ITEM	DESCRIPTION	QTY	U/M	U/P	EXTENSION
1.0	PULVERIZE ALL EXISTING ASPHALT IN PLACE. FINE GRADE AND COMPACT PULVERIZED MATERIAL. HAUL OFF SPOILS AS NEEDED.	41,300.00	SF	\$0.70	\$ 28,910.00
2.0	REMOVE AND REPLACE UP TO 4" IN DEPTH WITH 1/2" CONVENTIONAL ASPHALT MATERIAL PG64-10 PER CITY OF YUCAIPA STANDARDS, ROLL AND COMPACT. APPLY WEEDKILL.	41,300.00	SF	\$2.10	\$ 86,730.00

TOTAL: \$115,640.00

INCLUSIONS:

Quote includes Labor, Equipment, Materials and Traffic Control for our work (unless noted otherwise); Posting of No Parking Signs; One (1) Mobilization/Shift during regular daytime weekday work hours.

EXCLUSIONS:

Prevailing Wages unless otherwise noted, USA, Potholing, SWPPP, Erosion Control, Road/Steel Plates, Traffic Control Plans, Permits, Temporary Striping/Traffic Markings, Permanent Striping, Road Markings (Stencils), Salted Pavement Markers (RPM's), Marking and/or Layout, Engineering, Survey, Material Testing, Major Traffic Control (Ramp/Freeway Lane Closures), Construction Water (Water to be supplied by Prime Contractor and accessible to our equipment), Profile Milling, Profilograph, Sawcutting, Special Material Disposal (Asphalt Material with Rubber, Latex and/or other special asphalt mix designs), Slurry Seal, Subgrade Preparation/Compaction, Adjustment of Utilities (Including but not limited to Sewer/Storm Drain Manholes, Cleanouts, Water Valves, Precast Enclosures, Vaults), Removal of Hazardous Waste, Dirt, Aggregate Base, Fabric, PCC (Concrete), Clay, Construction Debris, Job Site Maintenance. Upon completion of our work PacWest Engineering is relieved of all liability for work completed; protection/maintenance shall become the responsibility of others.

GENERAL:

This Quotation shall become part of any future contract/purchase order unless otherwise agreed.

PacWest Engineering excludes notification to any underground utility service, marking and/or location of any underground utilities. Upon execution/acceptance of this quote the customer accepts sole responsibility for any/all subsequent liabilities coincident with the following requirements of the California regional notification center law pursuant to Article 2 (commencing with Section 4226) of Chapter 3.1 of Division 5 of Title 3 of the government code.

Accepted By: _____ Print Name: _____
Date: _____ PO #: _____

PacWest Engineering Co., Inc. | 684 E. Orange Show Rd, San Bernardino, CA 92408 | Ph: 951.333.5802



Date: November 6, 2018

Prepared By: John Wrobel, Public Works Manager

Subject: Authorization to Execute a Contract with Weka Inc. for Sewer Mainline Repairs in Wildwood Creek, Yucaipa

Recommendation: That the Board authorize the General Manager to execute a contract with Weka, Inc. for a sum not to exceed \$32,684.

The District staff performs routine inspections, maintenance, and repairs of the sewer collection system within Yucaipa and Calimesa. One commonly used inspection procedure is to video the interior of the sewer mains to ensure the mainline integrity and to identify any root intrusions.



During one of the recent video inspections, District staff found a section of 10-inch HDPE sewer mainline that had been compromised. This section of pipe is located just south of Wildwood Canyon Road, on the north side of Yucaipa Creek, in the channel. This section of pipe was last repaired in early 2011. During the 2010 winter storms, approximately 560 feet of this sewer main collapsed and an emergency repair was made using HDPE pipe. After the repairs were made in 2011, this section of pipe was video inspected, and no defects were found.





District staff solicited three proposals from local contractors capable of making proper repairs to HDPE pipe.

Contractor	Amount
Weka, Inc.	\$32,684
Pro Craft Construction	\$64,000
Merlin Johnson Construction	\$73,350

District staff recommends that this job be awarded to Weka, Inc.

Financial Consideration

Funding for this expense will be from Sewer Fund, Treatment, R & M Structures [GL Account #03-5-02-51003]. This was not included in the 2018-19 budget. A budget adjustment will be presented to the Board for recommended approval at a future meeting.

Yucaipa HDPE line repair final

8/7/2018 11:48 AM

WEKA INC.		Yucaipa HDPE sewer line repair		UNIT PRICE	TOTAL BID
QUANTITY	UNIT	DESCRIPTION			AMOUNT
1	1	LS	Mob/demob	3,600.00	3,600.00
2	1	LS	repair sewer main	17,184.00	17,184.00
3	1	LS	remove and replace rock	3,900.00	3,900.00
4	1			0.00	0.00
5	1			0.00	0.00
6	1			0.00	0.00
7	1			0.00	0.00
8	1			0.00	0.00
9	1			0.00	0.00
10	1			0.00	0.00
11	1			0.00	0.00
12	1		Alt grout rock	0.00	0.00
13	25	CY	grout rock as necessary to protect pipe	320.00	8,000.00
14	1			0.00	0.00
15	1			0.00	0.00
GRAND TOTALS					32,684.00



Pro-Craft Construction, Inc.
 31597 Outer Hwy. 10 South
 Suite B, Redlands, CA 92373
 909-790-5222 * Fax 909-797-2812
 License # 467234 A, B, C-2, C-34, C-36, C-42,
 DIR REGISTRATION #1000001106

Proposal R1

To: YVWD	Attn: Dustin Hochreiter
Email: dhochreiter@yvwd.us	Date: 7/6/2018
Phone: 909-797-5118	Pages: 1
Re: Wildwood Creek Repair	From: Travis Burton

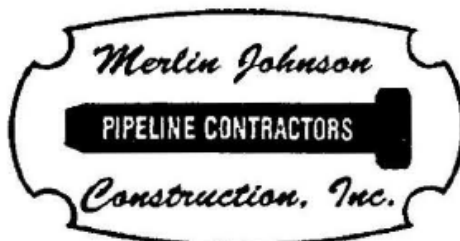
Plumbing • Piping • Engineering

Scope: Repair 10" HDPE Sewer Main

1. Mobilization
 - a. Equipment Delivery
2. Demo
 - a. Rock removal and storage on-site
3. Excavation & Repair
 - a. Excavate at point of damage
 - b. Remove damaged 10" and replace with kind material
 - c. YVWD to perform visual inspection of repair
 - d. Sand bedding & cover for protection
4. By-Pass removal
 - a. Cleaning of piping
5. Rock Placement
 - a. Install rock around 10" for added protection
6. De-Mobilization
 - a. Final Clean of all areas
 - b. Haul off all equipment

Sewer Repair Total: \$64,000.00

If this transmission is incomplete, please call 909.790.5222



License # 467306
P.O. Box 777 • Mentone, CA 92359
(909) 794-7702 • Fax (909) 794-3653

June 27, 2018

Ryan Janisch
Yucaipa Valley Water District
12770 Second St.
Yucaipa, CA 92399

Re: 10" HDPE sewer line repair on Wildwood Canyon

Ryan

Per our meeting @ the settling ponds on Wildwood Canyon Rd and Holmes St. I have worked up a cost to repair a section of existing 10" HDPE sewer pipe that was damaged by the County. Our proposal includes and excludes the following:

Included:

1. Remove all existing rock in drain basin around the 10" HDPE sewer line.
2. Remove portion of the existing 10" HDPE where pipe is damaged.
3. Furnish and install new 10" HDPE @ damaged area. (Approx. 20' of HDPE)
4. Re-install all rock in drain basin
5. Furnish and install sewer By-pass while work is being done. (Approx. 650' of bypass)
6. Clean up work area

Exclude

1. Any and all permits that may be needed to complete the project.
2. Any concrete or shotcrete in drain basin area.

Lump Sum = \$73,350.00

All work is to be done per YVWD standards

Sewer Repair Total _____ **\$64,000.00**

If this transmission is incomplete, please call 909.790.5222

Board Reports



Yucaipa Valley Water District

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
71 full time employees

FY 2018-19 Operating Budget: Water Division - \$14,150,445
Sewer Division - \$12,337,754
Recycled Water Division - \$1,293,270
Total Annual Budget - \$25,754,750

Number of Services: 12,693 water connections serving 17,362 units
13,980 sewer connections serving 21,806 units
92 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
1.756 million gallons of Inland Empire Brine Line capacity
0.595 million gallons of treatment capacity in Orange County

Typical Rates, Fees and Charges:

- Drinking Water Commodity Charge:

1,000 gallons to 15,000 gallons	\$1.429 per each 1,000 gallons
16,000 gallons to 60,000 gallons	\$1.919 per each 1,000 gallons
61,000 gallons to 100,000 gallons	\$2.099 per each 1,000 gallons
101,000 gallons or more	\$2.429 per each 1,000 gallons
- Recycled Water Commodity Charge:

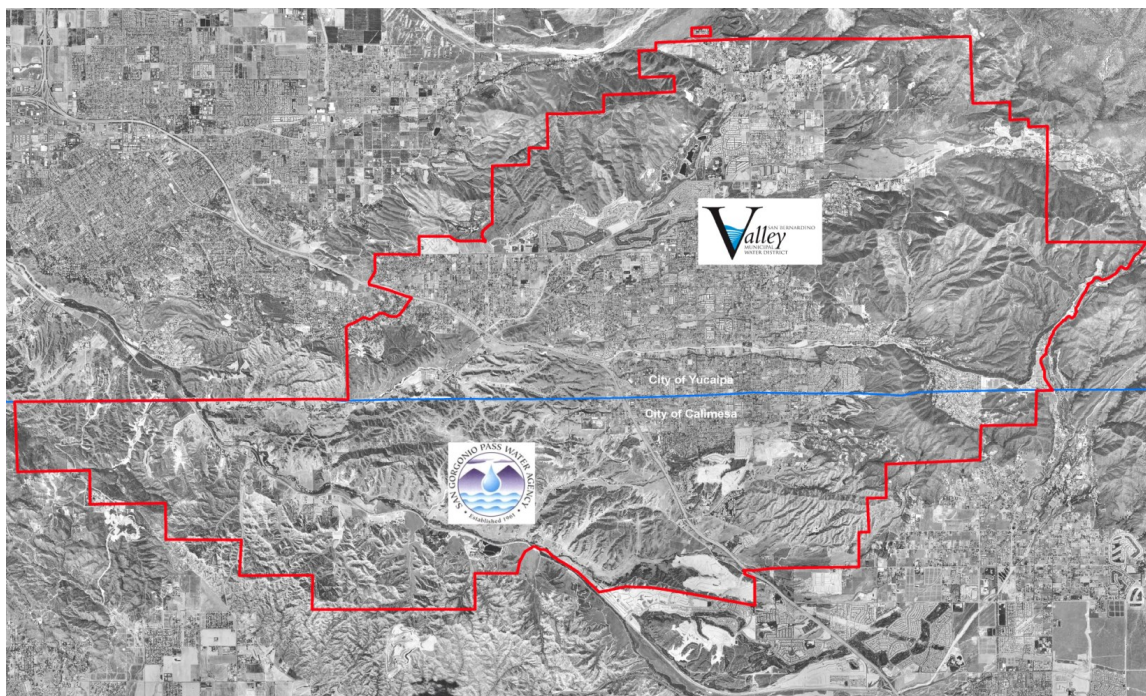
1,000 gallons or more	\$1.425 per each 1,000 gallons
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- Water Meter Service Charge (Drinking Water or Recycled Water):

5/8" x 3/4" Water Meter	\$14.00 per month
1" Water Meter	\$23.38 per month
1-1/2" Water Meter	\$46.62 per month
- Sewer Collection and Treatment Charge:

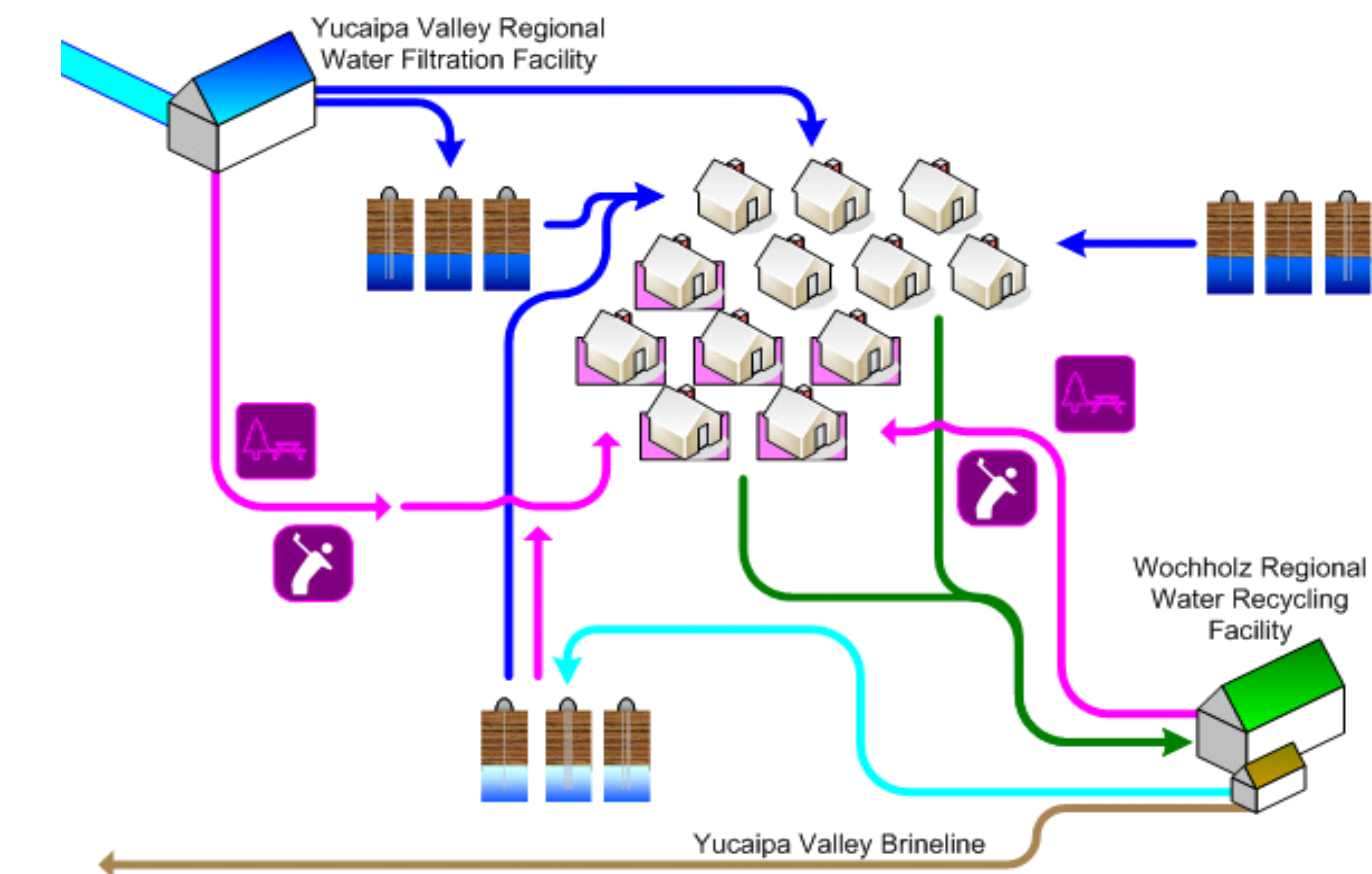
Typical Residential Charge	\$42.43 per month
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- Imported Water Charges (Pass-through State Water Project Charge):

San Bernardino Valley Municipal Water District	\$0.27 per each 1,000 gallons
San Geronio Pass Water Agency	\$0.66 per each 1,000 gallons

State Water Contractors: San Bernardino Valley Municipal Water District
San Geronio Pass Water Agency



Sustainability Plan: A Strategic Plan for a Sustainable Future: The Integration and Preservation of Resources, adopted on August 20, 2008.





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 wastewater 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 wastewater treatment process. This high-quality product can be recycled 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.

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

Certificate of Participation (COP) - A type of financing where an investor purchases a share of the lease revenues of a program rather than the bond being secured by those revenues.

Coliform Bacteria - A group of bacteria found in the intestines of humans and other animals, but also occasionally found elsewhere used as indicators of sewage pollution. E. coli are the most common bacteria in wastewater.

Collections System - In wastewater, it is the system of typically underground pipes that receive and convey sanitary wastewater or storm water.

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.

Contaminants of Potential Concern (CPC) - Pharmaceuticals, hormones, and other organic wastewater contaminants.

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.

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.

Levels of Service (LOS) - Goals to support environmental and public expectations for performance.

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.

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.

Santa Ana River Interceptor (SARI) Line - A regional brine line designed to convey 30 million gallons per day (MGD) of non-reclaimable wastewater from the upper Santa Ana River basin to Orange County Sanitation District for treatment, use and/or disposal.

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

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 wastewater.

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.

South Coast Air Quality Management District (SCAQMD) - Regional regulatory agency that develops plans and regulations designed to achieve public health standards by reducing emissions from business and industry.

Special district - A form of local government created by a local community to meet a specific need. Yucaipa Valley Water District is a County Water District formed pursuant to Section 30000 of the California Water Code

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.

Surface Water - Water found in lakes, streams, rivers, oceans, or reservoirs behind dams. In addition to using groundwater, Yucaipa Valley Water District receives surface water from the Oak Glen area.

Sustainable Groundwater Management Act (SGMA) - Pursuant to legislation signed by Governor Jerry Brown in 2014, the Sustainable Groundwater Management Act requires water agencies to manage groundwater extractions to not cause undesirable results from over production.

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 wastewater as it trickles over them.

Underground Service Alert (USA) - A free service (<https://www.digalert.org>) 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 carry 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.

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

Water Service Line - A water service line is used to deliver water from the Yucaipa Valley Water District's mainline distribution system.

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.

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

Water-Wise House Call - a service which provides a custom evaluation of a customer's indoor and outdoor water use and landscape watering requirements.

Well - a hole drilled into the ground to tap an underground aquifer.

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





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