Notice and Agenda of a Board Workshop

Tuesday, May 8, 2018 at 4:00 p.m.

MEETING LOCATION:	District Administration Building 12770 Second Street, Yucaipa
MEMBERS OF THE BOARD:	Director Chris Mann, Division 1 Director Bruce Granlund, Division 2 Director Jay Bogh, Division 3 Director Lonni Granlund, Division 4 Director Tom Shalhoub, Division 5

I. Call to Order

II. Public Comments At this time, members of the public may address the Board of Directors on matters within its jurisdiction; however, no action or significant discussion may take place on any item not on the meeting agenda.

III. Staff Report

IV. Strategic Planning

A. Discussion Regarding the Refinement of Strategic Planning Goals for the Yucaipa Valley Water District [Workshop Memorandum No. 18-125 - Page 5 of 42]

V. Operational Updates

A. Status Report on the Installation of Automated Meter Infrastructure (AMI) [Workshop Memorandum No. 18-126 - Page 8 of 42]

B. Discussion Regarding a Draft Agreement to Purchase Inland Empire Brine Line Capacity from the San Bernardino Valley Municipal Water District [Workshop Memorandum No. 18-127 - Page 12 of 42]

VI. Capital Improvement Projects

A. Status Report on the Annual Repairs and Rehabilitation of the Yucaipa Valley Regional Water Filtration Facility [Workshop Memorandum No. 18-128 - Page 21 of 42]

B. Consideration of the Installation of Hardscape near Reservoir R-13.1 at the Yucaipa Valley Regional Water Filtration Facility [Workshop Memorandum No. 18-129 - Page 23 of 42]

C. Status Report on the Emergency Repairs for Drinking Water Reservoir 17.1.1 [Workshop Memorandum No. 18-130 - Page 25 of 42]

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. Administrative Items

A. Consideration of Amendment No. 1 with Dudek Related to the Database Management System for Integration of Data from Southern California Edison [Workshop Memorandum No. 18-131 - Page 27 of 42]

B. Presentation of the Unaudited Financial Report for the Period Ending on April 30, 2018 [Workshop Memorandum No. 18-132 - Page 32 of 42]

VIII. Director Comments

IX. Adjournment

Staff Report

Yucaipa Valley Water District

Strategic Planning

Yucaipa Valley Water District

Yucaipa Valley Water District

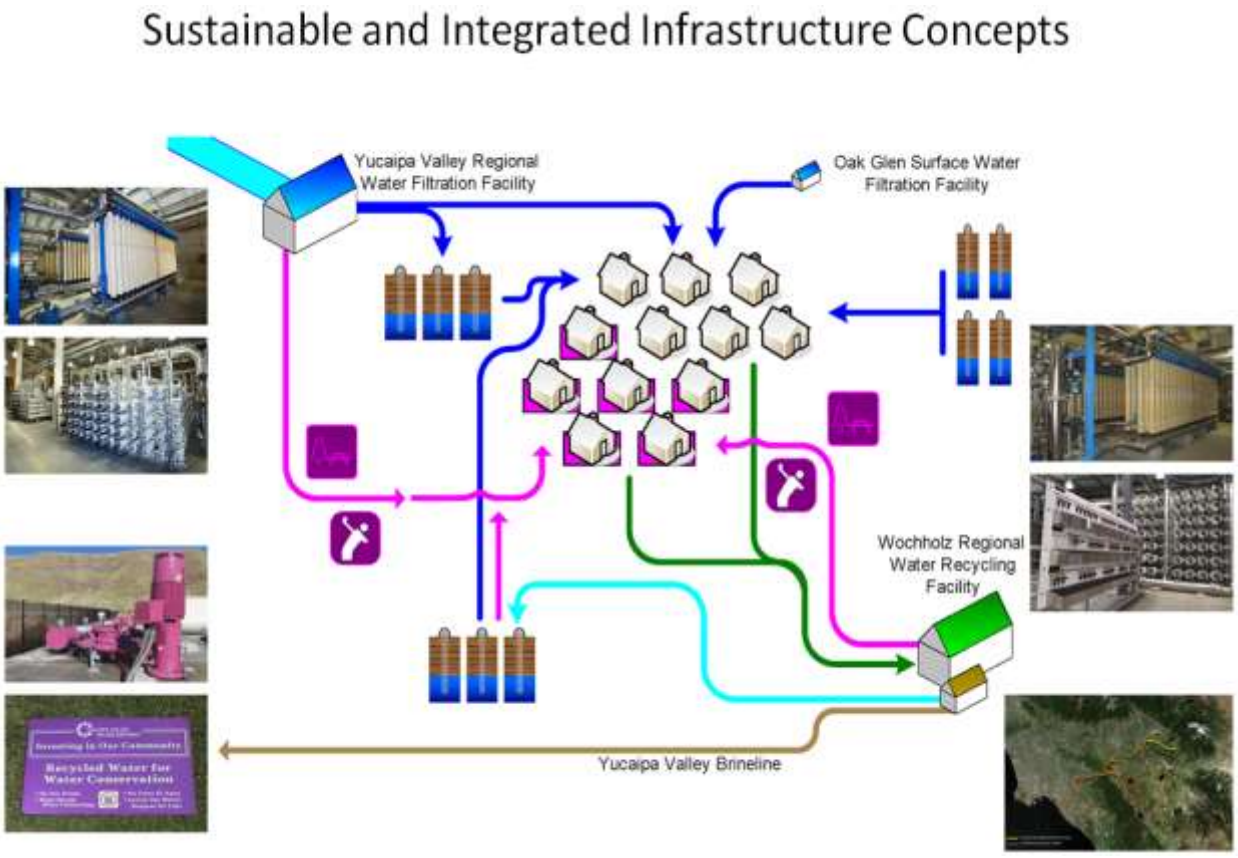
Workshop Memorandum 18-125

Date: May 8, 2018

From: Joseph Zoba, General Manager

Subject: Discussion Regarding the Refinement of Strategic Planning Goals for the Yucaipa Valley Water District

Over the past several decades, the Yucaipa Valley Water District has embarked on a series of capital improvement projects that have created integrated systems of drinking water, recycled water, sewer treatment, and brine disposal facilities. The integration of these facilities has set the Yucaipa Valley Water District on a course to sustainably maintain exceptionally pure and renewable water resources.



In preparation for the next decade of projects, the Board of Directors of the Yucaipa Valley Water District has embarked on a strategic planning process that set priorities for future capital improvement projects. These improvements will be structured to provide additional supplies of high quality water for future use within our community and make the District more sustainable and resilient.

The Strategic Planning Priorities set by the Board of Directors (not in order of priority) include the following elements:

- **Direct Potable Reuse** - Plan and evaluate the opportunities and constraints related to implementation of direct potable reuse facilities. This strategic goal will involve the Salinity and Groundwater Enhancement (SAGE) project at the Wochholz Regional Water Recycling Facility; the Salinity Concentrate Reduction and Minimization (SCRAM) Project at the Yucaipa Valley Regional Water Filtration Facility; and may include a new water filtration facility at the Wochholz Regional Water Recycling Facility. This strategic priority was established by the Board of Directors on March 8, 2018.

- **Indirect Potable Reuse** - Plan and evaluate the opportunities and constraints related to implementation of indirect potable reuse. This strategic goal will involve the recharge of recycled water at various locations throughout the District's service area which will also involve the development of recharge facilities. This strategic priority was established by the Board of Directors on March 8, 2018.

- **Energy Efficiency Projects** - Plan and evaluate the opportunities and constraints related to implementation of solar, microturbines, biogas, and other technologies to stabilize energy expenses. This strategic goal will likely involve the investigation of innovative technologies and programs to become more energy efficient. This strategic priority was established by the Board of Directors on March 8, 2018.

- **Consolidation of District Facilities** - Plan and evaluate the opportunities and constraints related to the colocation and consolidation of District offices and work areas to be in close proximity of existing operational areas. This strategic goal will likely involve the relocation of the District office on Second Street to an area near the Wochholz Regional Water Recycling Facility. This strategic priority was established by the Board of Directors on March 8, 2018.

- **Beaumont Basin Recharge Facilities** - Plan and evaluate the opportunities and constraints related to the construction of recharge facilities in the Beaumont Basin to maximize the operational efficiency of groundwater within the Beaumont adjudication area. This strategic priority was established by the Board of Directors on March 8, 2018.

- **Public Relations and Outreach** - Plan and implement a program to gain and enhance the District's presence involving:
    - Social media;
    - Website refresh and upgrades;
    - Video clips;
    - Summary of the District's operations;
    - Historical information; and
    - Near real-time press releases.

  This strategic priority was established by the Board of Directors on March 8, 2018.

The purpose of this agenda item is to discuss project linkages, opportunities, and constraints associated with the implementation of the strategic plan.

Operational Updates

Yucaipa Valley Water District

Yucaipa Valley Water District

Workshop Memorandum 18-126

Date: May 8, 2018

From: Michael Rivera, Public Works Supervisor

Subject: Status Report on the Installation of Automated Meter Infrastructure (AMI)

The Automated Meter Infrastructure (AMI) is the system that is capable of reading water meters, identifying leaks and backflow conditions, and compiling drinking water / recycled water consumption data using radio frequency communications.

The District staff has started the installation of the new AMI equipment. The purpose of this agenda item is to provide an update on the installation process and status.


WATER


WATER

Yucaipa Valley Water District

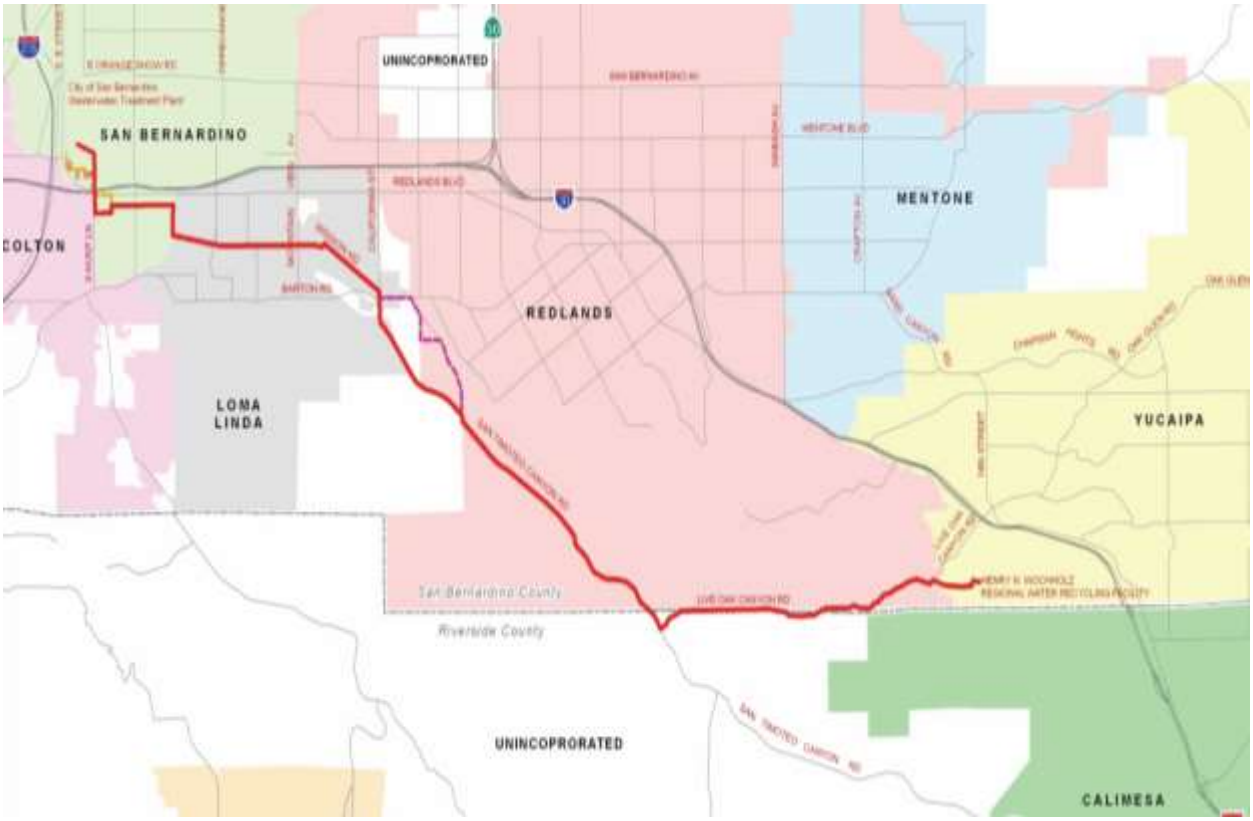
Workshop Memorandum 18-127

Date: May 8, 2018

From: Joseph Zoba, General Manager

Subject: Discussion Regarding a Draft Agreement to Purchase Inland Empire Brine Line Capacity from the San Bernardino Valley Municipal Water District

In 2013, the Yucaipa Valley Water District completed the construction of the Yucaipa Valley Regional Brineline which extends the Inland Empire Brineline from San Bernardino to the Wochholz Regional Water Recycling Facility.



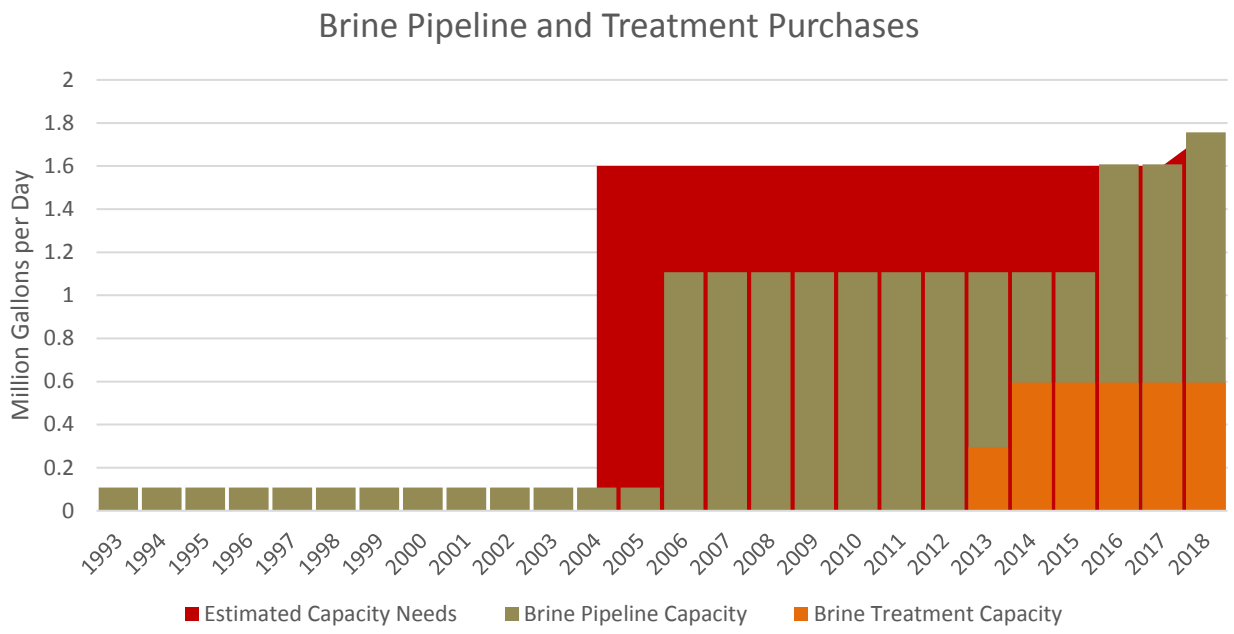
The Yucaipa Valley Regional Brineline is a critical component of the reverse osmosis treatment process at the Wochholz Regional Water Recycling Facility. The brineline is needed to comply with the water quality objectives set by the Santa Ana Regional Water Quality Control Board for the use of recycled water in Yucaipa and Calimesa. The reverse osmosis treatment process enables the District to remove salts and minerals from the recycled water supply which results in an exceptionally pure quality recycled water source. The non-reclaimable waste produced from the reverse osmosis system, referred to as brine or reverse osmosis concentrate, must be conveyed in a pipeline to lower portions of the Santa Ana Watershed for treatment so it does not degrade fresh water resources throughout the watershed.

Yucaipa Valley Regional Water Supply Renewal Project

In order to utilize the Inland Empire Brineline, the project partners need to purchase and maintain ownership of two primary components: pipeline capacity and treatment capacity. Sufficient pipeline capacity is needed to convey the brine solution through the Inland Empire Brineline shown in purple above. Sufficient treatment capacity is also required to provide treatment to the brine solution in treatment facilities owned and operated by the Orange County Sanitation District.

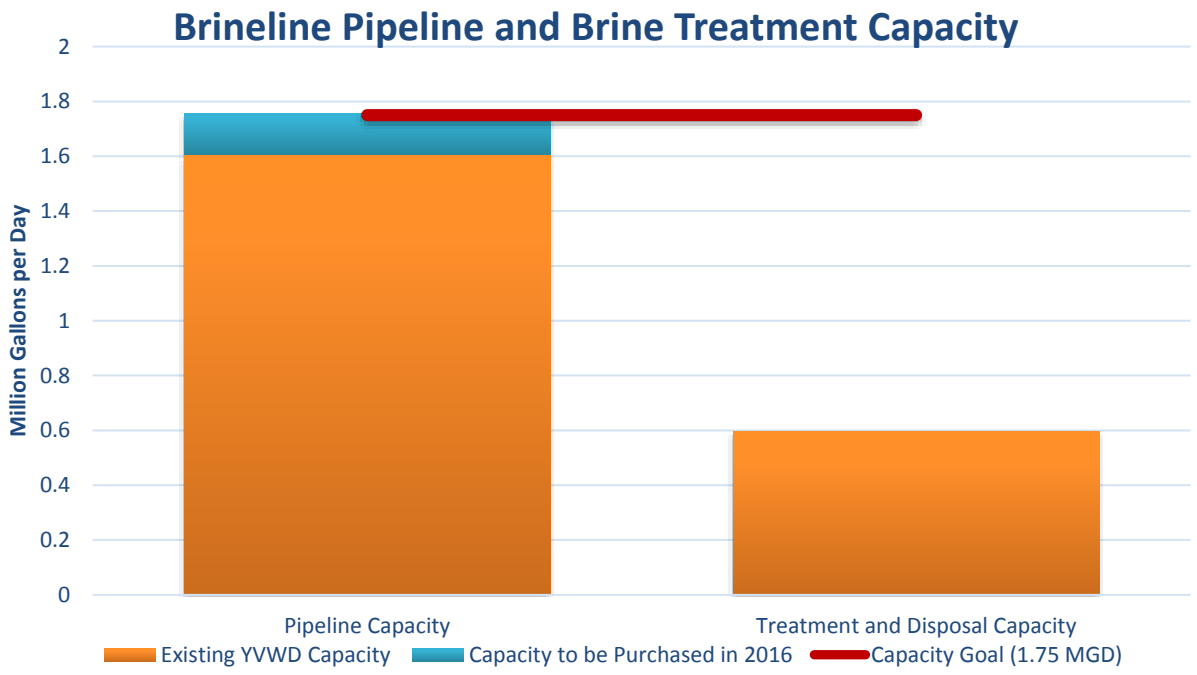
In 1993 the District purchased an original quantity of 0.108 million gallons per day of brineline pipeline capacity. A second purchase of pipeline capacity was secured in 2006 providing an additional 1.0 million gallons per day for a total of 1.108 million gallons per day of brineline pipeline capacity in the Inland Empire Brineline. A third purchase of pipeline capacity was secured in 2016 with the purchase of 0.5 million gallons per day for a total of 1.608 million gallons per day of brineline pipeline capacity representing the current amount of brine pipeline capacity owned by the District.

In 2013, the Yucaipa Valley Water District purchased 0.295 million gallons per day of treatment and disposal capacity in the Orange County Sanitation District's facilities, and in 2016 the District purchased an additional 0.300 million gallons per day of treatment and disposal capacity. The District currently owns 0.595 million gallons per day of treatment capacity with the Orange County Sanitation District.



With the recent strategic planning concepts completed by the Board of Directors, the District staff recommends adjusting our ultimate brine disposal needs from 1.6 million gallons per day of both brineline pipeline and brine treatment/disposal capacity to 1.75 million gallons per day of capacity of pipeline and treatment capacity.

At a recent meeting with the San Bernardino Valley Municipal Water District, the District staff was informed of the availability of 148,000 of brine pipeline capacity currently held by the San Bernardino Valley Municipal Water District. The District staff drafted and presented the attached purchase agreement to the Valley District staff for their review and consideration.



Funds for this purchase are provided by the Wastewater Division Infrastructure Reserves (Fund 03-10311) and will be replenished by future development from Facility Capacity Charge Salt Mitigation Facilities (Fund 03-10418).

Agreement for Yucaipa Valley Water District to Purchase Inland Empire Brine Line Capacities from the San Bernardino Valley Municipal Water District

This Purchase Agreement ("Purchase Agreement") is made this __th day of June 2018 ("Effective Date"), by and between San Bernardino Valley Municipal Water District, a municipal water district ("Valley District"), and the Yucaipa Valley Water District ("YVWD"), a county water district. Valley District and YVWD are sometimes collectively referred to as the "Parties" and individually as "Party."

RECITALS

A. On June 22, 1993, Valley District and Santa Ana Watershed Project Authority ("SAWPA") entered into that certain SARI Capacity Agreement ("SAWPA Agreement"), which is hereby incorporated by reference, granting Valley District the right to acquire a certain amount of pipeline capacity use right and treatment and disposal rights in the Inland Empire Brine Line system ("Brine Line"), formerly known as the Santa Ana Regional Interceptor ("SARI").

B. Valley District owns a certain amount of Brine Line pipeline capacity use right pursuant to the SAWPA Agreement, a portion of which Valley District is willing to sell to YVWD, as an eligible discharger located within Valley District's boundaries.

C. YVWD is interested in purchasing from Valley District a discharge right allocation for a maximum of 0.148 million gallons per day ("MGD") (i.e., 148,000 gallons per day) of non-reclaimable wastewater into the Brine Line. The discharge right allocation is referred to as the "Capacity Rights."

D. The purchase price for capacity in the Brine Line is Three Million Seven Hundred Fifty Thousand and 00/100 Dollars ($3,750,000.00) per MGD as established by SAWPA Resolution 295, dated July 8, 1997.

E. YVWD agrees to purchase and assume from Valley District the Capacity Rights, upon the terms and conditions contained in this Purchase Agreement.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the foregoing facts and mutual covenants and for other good and valuable consideration, the sufficiency of which is hereby acknowledged, the Parties hereby agreed as follows:

1. Purchase of Capacity Rights. Subject to the terms and conditions of this Purchase Agreement, Valley District agrees to grant, sell, transfer and assign to YVWD, and YVWD agrees to purchase, acquire, assume and accept from Valley District 148,000 gallons per day of pipeline capacity ("Capacity Rights"), including all obligations related thereto.

2. Purchase Price. Subject to the additional costs required under this Purchase Agreement, the purchase price of the Capacity Rights shall be Five Hundred Fifty Five Thousand Dollars ($555,000.00), subject to any amendments or adjustments to SAWPA Resolution 295 ("Purchase Price"). Use of the Capacity Rights shall not occur until the full payment of the

Purchase Price is received from YVWD by Valley District. YVWD acknowledges that the Purchase Price does not cover other costs or annual fees for use or operation of the Brine Line system, which may be imposed by Orange County Sanitation District ("OCSD") or SAWPA from time to time.

3. Additional Costs. In addition to the payment of the Purchase Price contemplated under Section 2, YVWD will be responsible for the timely payment of all other costs, fees and expenses, (whether fixed, use-based, or otherwise) including, without limitation, operation, repair, maintenance and replacement costs imposed by OCSD, SAWPA, Valley District, or the SAWPA Agreement, as amended, regarding the use and operation of the Brine Line system. The payment of any additional fees and costs shall be made within thirty (30) days of YVWD's receipt of an invoice from Valley District.

4. Compliance. YVWD shall at all times comply with all quality standards and requirements for the discharge of non-reclaimable wastewater into the Brine Line system mandated by applicable ordinances, rules, regulations, orders, permits or agreements, including without limitation, the SAWPA Agreement, as those items may be amended or supplemented from time to time, which are issued or executed by the OCSD, SAWPA, Valley District or any other rule making agency or authority. Further, YVWD agrees to comply with all federal and state law, rule or regulation regarding or relating to the actions contemplated by this Purchase Agreement. Upon use of the Capacity Rights, YVWD will be deemed to have knowledge of, and hereby acknowledges compliance with all applicable ordinances, rules, regulations, orders and permits, including any amendments thereto, affecting or relating to YVWD's use or rights to the Brine Line system.

5. Discharge Permit. Prior to utilizing the Capacity Rights, YVWD will be required to amend its discharge permit and obtain the same from SAWPA and to make such necessary arrangements with Valley District and SAWPA for the point of delivery of such discharge and for payment of the costs of installation and maintenance of facilities, if any, in connection therewith.

6. Default. In the event YVWD fails to pay any amounts owed when due, or if YVWD otherwise fails to comply or perform its obligations under this Purchase Agreement or under any ordinances, rules, regulations, orders or permits of OCSD, SAWPA, Valley District or any other agency or authority with jurisdiction over use of the Brine Line contemplated herein, Valley District shall provide YVWD with written notice of such default. Upon receipt of the default notice, YVWD shall have ninety (90) days to cure a default for failure to pay any amounts owed ("Cure Period"). If YVWD fails to cure the default within the applicable Cure Period, Valley District may exercise any and all rights available in law or in equity, or as otherwise available under any applicable ordinances, rules, regulations, orders or permits.

7. Indemnification. YVWD hereby indemnifies, defends and holds Valley District harmless from and against any and all claims, penalties, losses, costs, interest, damages, liability, demands, and expenses (including attorneys' fees and costs) arising from or relating to any breach by YVWD of the terms of this Purchase Agreement.

8. Attorneys' Fees. If any legal action is necessary to enforce or interpret the terms of this Purchase Agreement, the prevailing party in such action will be entitled to reasonable attorneys' fees and costs in addition to any other relief the prevailing party may be entitled.

9. Assignment. This Purchase Agreement may not be assigned by YVWD without the prior written consent of Valley District, which consent shall not be unreasonably withheld.

10. Succession. This Purchase Agreement shall inure to the benefit of, and be binding upon, the successors and assigns of each Party.

11. Entire Agreement. This Purchase Agreement, including any exhibits and schedules hereto, contains the entire agreement between the Parties pertaining to the subject matter hereof and fully supersedes all prior written or oral agreements and understandings between the Parties pertaining to such subject matter. The captions in this Purchase Agreement are for convenience only and shall not be considered a part of or affect the construction or interpretation of any provision of this Purchase Agreement.

12. Modifications. This Purchase Agreement cannot be changed orally, and no executory agreement shall be effective to waive, change, modify, or discharge it in whole or in part unless such executory agreement is in writing and is signed by the Parties against whom enforcement of any waiver, change, modification, or discharge is sought.

13. Counterparts. This Purchase Agreement may be signed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

14. Risks of the Brine Line. The Brine Line system is a large non-reclaimable wastewater pipeline constructed in various types of terrain and environments and subject to the risk of curtailment, outages, or interruptions due to washout, earthquake, treatment plant requirements, regulatory prohibition or restrictions, or the like, and the Capacity Rights provided herein is purchased subject to such risks.

[Signatures provided on the following page]

IN WITNESS WHEREOF, the Parties have executed this Purchase Agreement to be effective as of the date first set forth above.

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT,

A MUNICIPAL WATER DISTRICT

By: _____

Name: _____

Its: _____

YUCAIPA VALLEY WATER DISTRICT,

A COUNTY WATER DISTRICT

By: _____

Name: Jay Bogh

Its: Board President

Capital Improvement Projects

Yucaipa Valley Water District

Yucaipa Valley Water District

Director Memorandum 18-128

Date: May 8, 2018

From: Mike Kostelecky, Operations Manager

Subject: Status Report on the Annual Repairs and Rehabilitation of the Yucaipa Valley Regional Water Filtration Facility

Each year the District staff takes the Yucaipa Valley Regional Water Filtration Facility (YVRWFF) out of service to perform routine inspections and repairs of the facility. In some instances, this opportunity to inspect the facility has resulted in unexpected repairs that need to be completed promptly to prepare the drinking water facility for summertime operation.

The purpose of this agenda item is to discuss the status and schedule of the anticipated repairs.

On March 20, 2018, the Board of Directors ratified the process plumbing repairs of the YVRWFF with W.M. Lyles Co. for a sum not to exceed $43,600 [Director Memorandum No. 18-049]. The work was completed within one week and included all new chemical and containment piping.

Identified coating repairs in the blending structure, a section of the combined plant effluent pipe, and a section of the influent nanofiltration pipe are completed. The work was performed by Joe Colon Coatings, Inc. in one week for a sum not to exceed $11,700.

A two foot diameter hatch was installed in the Nanafiltration Clean in Place Tank to allow for safer and easier access while mixing the desired solution. The work was performed by JCS Welding in one day for a sum not to exceed $2,300.

Multiple chemical pump piping configurations were re-piped by staff due to failures and fatigue related to the age of pipe. The systems were then charged with water to ensure no leakages were present.

The Yucaipa Valley Regional Water Filtration Facility repairs and maintenance are complete and influent flow was started on May 1 at 12:00 P.M. Staff started flushing until an effluent disinfectant residual was recorded. The first bacteriological sample was taken at noon on Thursday, May 3 and the second on Friday, May 4 at noon. With approval from the Department of Drinking Water, the water filtration plant is expected to be turned into the drinking water distribution system on Monday, May 7 at a flow rate of 5.2 million gallons per day.

Yucaipa Valley Water District

Director Memorandum 18-129

Date: May 8, 2018

From: Mike Kostelecky, Operations Manager

Subject: Consideration of the Installation of Hardscape near Reservoir R-13.1 at the Yucaipa Valley Regional Water Filtration Facility

The District staff is proposing to modify the landscaping around Reservoir R-13.1 to a low maintenance hardscape which will match the existing hardscape on the property. This change will require the purchase of 440 tons of crushed Desert Gold rock for a sum not exceed $34,800 and labor to remove the existing vegetation for an amount of $4,140. This also includes installation of a weed barrier fabric and matching rock at the corner where the District's Recycled Water monument rock now exists.

District staff is asking for your consideration to contract the identified hardscape scope of work at 13.1 to the District's current contracted landscape company, Pacific Coast Landscape & Design, Inc., for a sum not to exceed $38,940 and begin as soon as possible.

Pacific Coast Landscape & Design, Inc.
P.O. Box 4566
Riverside, CA 92514-4566
(951)683-2197

ESTIMATE

ESTIMATE # 1949
DATE 04/24/2018
EXPIRATION DATE 05/24/2018

ADDRESS
Yucaipa Valley Water District
12770 Second Street
Yucaipa, CA 92399

Please detach top portion and return with your payment.

LOCATION #:	**ADDRESS:**	**REQUESTED BY:**
SITE A	35477 Oak Glen	Tim Mackamul

ACTIVITY	QTY	RATE	AMOUNT
We hereby propose to furnish all labor, materials and equipment for the LANDSCAPE SERVICES requested at 35477 Oak Glen Rd, Yucaipa, CA.			
Our proposal is as follows:			
**********VEGETATION CLEARING & ROCK INSTALLATION********** (Vacant Lot adjacent to storage tank)			
Clear all vegetation from lot and dispose of offsite.	1	1,000.00	1,000.00
Fine Grade Approximately 52,000 SF to prep for Rock Installation	52,000	0.05	2,600.00
Install approximately 440 Tons of 3/4" Crushed Desert Gold Rock spread @ 2" Depth (to match existing)	52,000	0.65	33,800.00
*Includes weed barrier fabric for weed prevention.			
**********EXISTING ROCK REMOVAL & REPLACEMENT**********			
Removal of existing rock at corner of lot (Approximately 360 SF)	360	1.50	540.00
Spread approximately 4 Tons of 3/4" Desert Gold Rock @ 2" Depth with Weed Barrier Fabric	4	250.00	1,000.00

Thank you for the opportunity to provide you with our services. We look forward to working with your team on this project.

TOTAL **$38,940.00**

Yucaipa Valley Water District

Workshop Memorandum 18-130

Date: May 8, 2018

From: Mike Kostelecky, Operations Manager

Subject: Status Report on the Emergency Repairs for Drinking Water Reservoir 17.1.1

On November 21, 2017, the Board of Directors authorized emergency coating repairs for drinking water reservoir R-17.1.1 with Superior Tank Solutions [Director Memorandum No. 17-108].

On Monday, January 29, 2018, Superior Tank Solutions began repairs. Upon removing the coal tar enamel from the floor, it was evident that the floor needed replacement, not repair. The existing floor consists of numerous welded patches in various sizes and thousands of pits from erosion. This metal has been worn thin and is now a liability to the District. The side shell had approximately ten holes that have since been repaired.

At the board meeting on February 20, 2018, the Board of Directors ratified the authorization for Superior Tank Solutions to proceed with the necessary repair work.

The purpose of this agenda item is to provide an update on the status of the repairs and give a timeline for the return of service.

Administrative Items

Yucaipa Valley Water District

Yucaipa Valley Water District

Workshop Memorandum 18-131

Date: May 8, 2018

From: Jennifer Ares, Water Resource Manager

Subject: Consideration of Amendment No. 1 with Dudek Related to the Database Management System for Integration of Data from Southern California Edison

On September 19, 2017 the Board of Directors approved Director Memorandum 17-084 for the Development of a Comprehensive Database Management System for Measuring and Monitoring Various Water Operational Parameters. Parameters currently included in the database consist of lab data, natural resources data, production reports, and monthly wastewater reports.

The District staff is also conducting an analysis of energy consumption at our facilities. Adding integration support for SoCal Edison energy usage data will assist with the analysis and efforts to increase efficiency with energy consumption. The following Amendment will include the integration of the District's SoCal Edison meters into the Database as assets, grouping the assets with related Maintenance Connection assets as needed.

Financial Consideration

Dudek will complete the tasks described below not to exceed $6,600. which funding will be paid from:

- 45% Water Department, Administrative Service Division, Professional Services [GL Account #02-5-06-54109];
- 45% Sewer Department, Administrative Service Division, Professional Services [GL Account #03-5-06-54109;
- 10% Recycled Water Department, Administrative Service Division, Professional Services [GL Account #04-5-06-54109.

DUDEK
605 Third St.
Encinitas, CA 92024
T 760.942.5147
F 760.632.0164

CONTRACT AMENDMENT AUTHORIZATION

TO: Jennifer Ares, Water Resources Manager

Client: Yucaipa Valley Water District

Address: 12770 Second Street

City: Yucaipa State: CA Zip: 92399

Phone: 909-790-3301 Fax:

This form is provided to document your written authorization to amend our existing contract with your organization for additional work as discussed. By documenting your written authorization for these contract amendment(s), we hope to avoid any misunderstanding between your organization and Dudek, and to expedite our ability to immediately proceed on work as requested. All other terms and conditions of the original contract between Client and Dudek described below remain in effect, apply to and are unaltered by this contract amendment authorization.

Contract Name: Data Management System Development – Phase 1

Contract/Purchase Order No.:

Dudek Job No.: 10667-3 **Dudek Project Manager:** Steven Stuart

Contract Effective Date: 9/21/17

AMENDED/ADDITIONAL CONTRACT WORK DISCIPLINE

Provide additional services in incorporating and integrating SoCal Edison data to phase 1 of the DMS development. Please see attached letter.

Original Budget:	89,750.00	**Time & Materials Not to Exceed:** ☒
Previous Change Orders:	0.00	**Time & Materials:**
This Change Order:	6,600.00	**Fixed Fee:**
Reimbursable Direct Costs:	0.00	
New Contract Amount:	96,350.00	

Client Authorized Signature:

Title: **Date:**

TO EXPEDITE THE ADDITIONAL CONTRACT WORK, PLEASE FAX BACK TO DUDEK AT (760) 632-0164

DUDEK

April 12, 2018

Jennifer Ares
Yucaipa Valley Water District
Post Office Box 730
Yucaipa, California 92399-0730

Subject: Scope of Work to Provide Additional Data Management System Support (Phase 1, Amendment 1)

Dear Ms. Ares:

As a follow-up to our April 11, 2018 team call, we understand you are interested in adding integration support for SoCal Edison (SCE) energy usage data as part of Phase 1 Data Management System (DMS) development. This task was discussed during the design phase and as part of the Technical Design Memorandum we identified it for completion in a future phase of DMS development; however, since this integration will add immediate value to the DMS for ongoing Yucaipa Valley Water District (District) initiatives, we agree with adding it under Phase 1 development.

The attached Scope of Services defines the scope and fee for Dudek to collaborate with the District in adding the SoCal Edison data integration to Phase 1 DMS implementation.

Should you have any questions or wish to discuss any details further, please do not hesitate to contact me at (760) 479-4128.

Sincerely,

Steven Stuart, P.E.
Senior Hydrogeologist and Project Manager

DUDEK

YUCAIPA VALLEY WATER DISTRICT DATA MANAGEMENT SYSTEM SUPPORT

Scope of Work

Phase 1, Amendment 1 – SoCal Edison Data Integration

Under this amendment, we would implement the following functionality during Phase 1 Data Management System (DMS) development:

- Import the SoCal Edison (SCE) meters into the DMS as assets, grouping the assets with related Maintenance Connection assets if applicable.
- Create an automated, recurring task to import the Excel documents provided by SCE into the DMS (with validation prior to import). Based on our current understanding, the datapoints to be included in the import are:
  - **Asset Name** (Column A of the SCE Excel worksheets)
  - Service **Account** (Column B of the SCE Excel worksheets, will serve as the Asset Code)
  - **GL** (Column D of the SCE Excel worksheets, will be brought into the DMS as a keyword "tag" on the associated meter asset)
  - **Charge** (Column E of the SCE Excel worksheets, in U.S. dollars)
  - **Service End Date** (Column I of the SCE Excel worksheets, will be used in the DMS as the date of the entry)
- Develop corresponding user interface for managing the SCE integration via the Control Panel of the DMS Administrative Web Portal (DMSadmin), which would allow administrators to set preferences (e.g., how often the integration should run, and which folder the script should use as the "inbox" for importing new Excel files from SCE).

See the revised Conceptual Data Model (provided electronically with this scope) to see how this amendment fits in context with the rest of Phase 1 development.

Assumptions:

- We anticipate creation of up to 100 SCE meter assets, with translation to Maintenance Connection Assets if applicable.
- The SCE data will provided in Excel format, with a standardized structure that can be read by an automated/scripted task.
- This scope is limited to the task of importing SCE data into the DMS database in a recurring/ongoing fashion. Reports and Alerts will be handled under the existing Phase 1 scope without additional development, as they are designed to accommodate new data structures over time.
- Implementation of this SCE data integration can occur under the existing Phase 1 timeline, as outlined in the Task 1.1 Technical Design Memorandum.

Deliverables:

- Functional SCE data integration, built into the existing DMSadmin Web application.

Cost & Timeline

Below (Table 1) is the cost and anticipated timeline for incorporating this amendment into Phase 1 DMS development:

TABLE 1. AMENDMENT 1 DATA MANAGEMENT SYSTEM TASKS

Task	Expected Time to Complete	Cost
Phase 1, Amendment 1 – SoCal Edison Data Integration	Can be completed within existing Phase 1 timeline	$6,600.00
	Total	**$6,600.00**

FEE SUMMARY

The fee presented in this proposal will be charged on a time and materials basis in accordance with Dudek's 2018 Standard Schedule of Charges (see attached). Dudek will complete the tasks described above on a time-and-materials basis, not to exceed $6,600.00.

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 $6,600

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

Sincerely,

Steven Stuart, P.E. C79764
Project Manager

Yucaipa Valley Water District

Workshop Memorandum 18-132

Date: May 8, 2018

From: Allison M. Edmisten, Chief Financial Officer
Peggy Little, Administrative Supervisor

Subject: Presentation of the Unaudited Financial Report for the Period Ending on April 30, 2018

Information regarding the unaudited financial report will be distributed at the board workshop.

Director Comments

Yucaipa Valley Water District

Adjournment

Yucaipa Valley Water District

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
62 full time employees

Operating Budget:
Water Division - $13,397,500
Sewer Division - $11,820,000
Recycled Water Division - $537,250
Total Annual Budget - $25,754,750

Number of Services:
12,434 water connections serving 17,179 units
13,559 sewer connections serving 20,519 units
64 recycled water connections

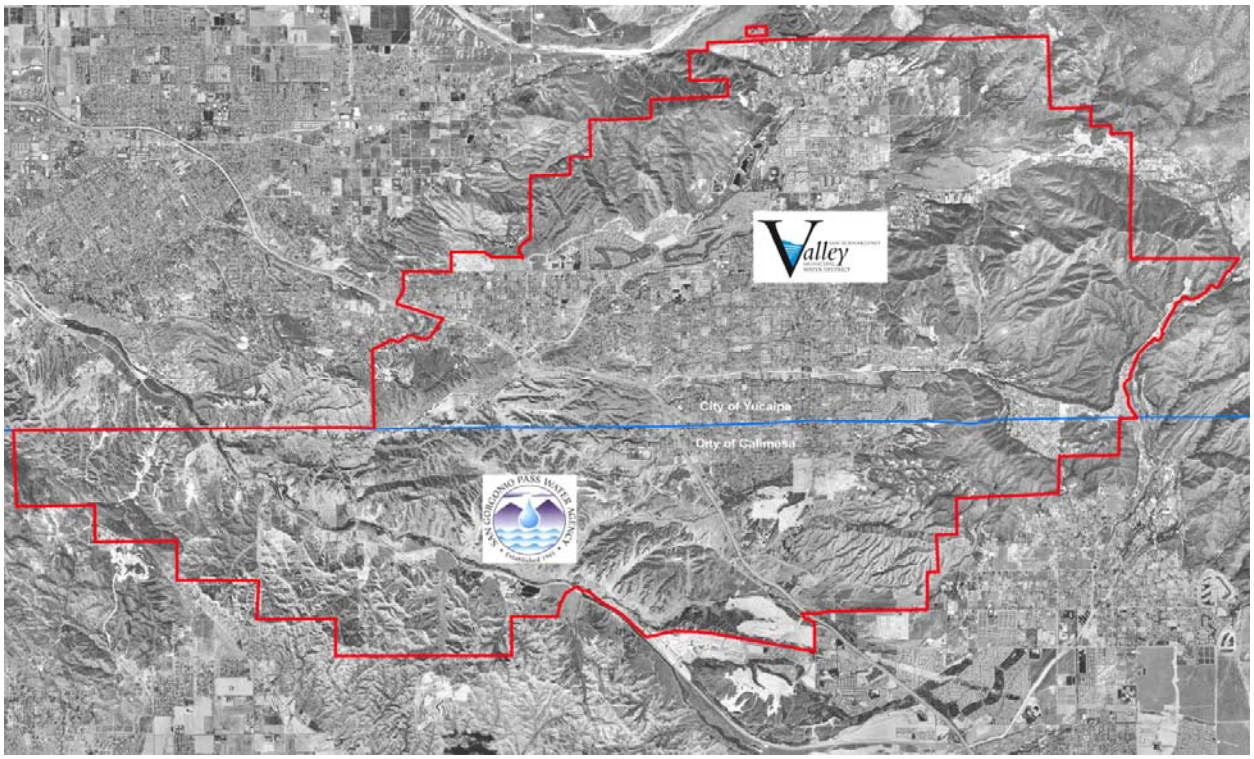
Water System:
215 miles of drinking water pipelines
27 reservoirs - 34 million gallons of storage capacity
18 pressure zones
12,000 ac-ft annual water demand (3.9 billion gallons)
Two water filtration facilities:
- 1 mgd at Oak Glen Surface Water Filtration Facility
- 12 mgd at Yucaipa Valley Regional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

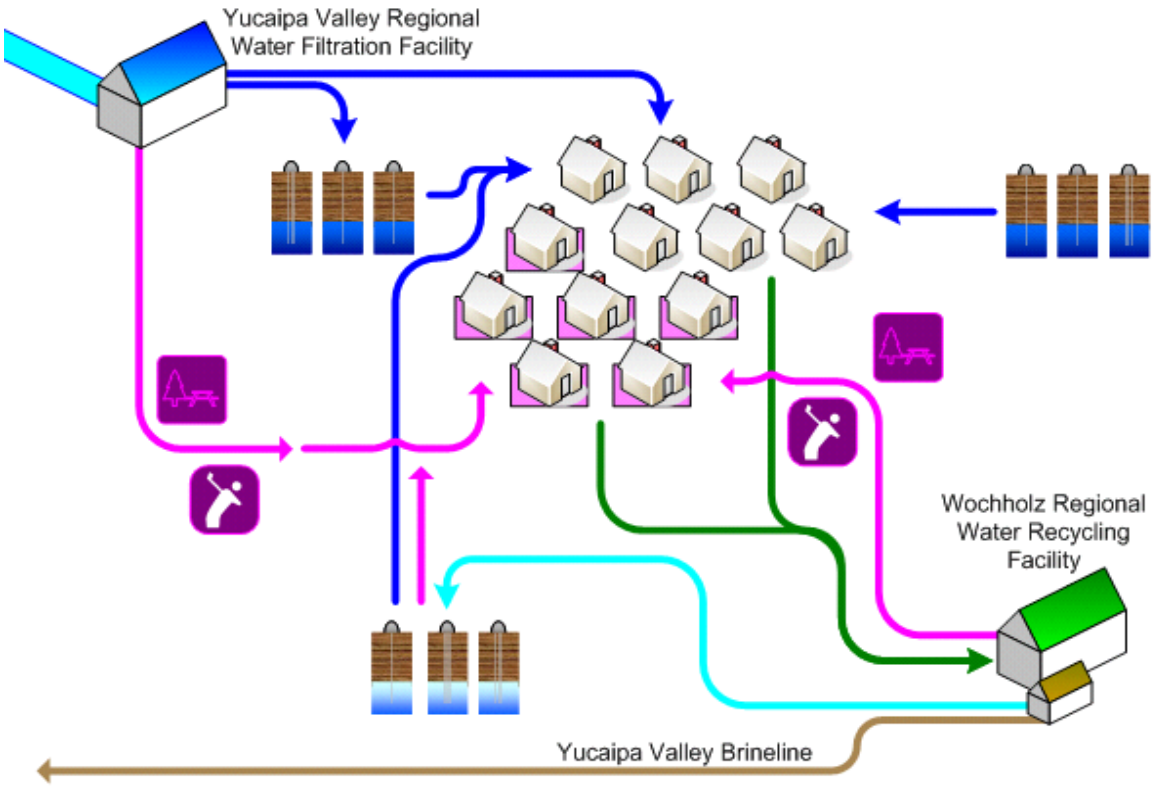
Recycled Water:
22 miles of recycled water pipelines
5 reservoirs - 12 million gallons of storage
1,200 ac-ft annual recycled demand (0.4 billion gallons)

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

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



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



Yucaipa Valley Water District

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).

Yucaipa Valley Water District

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.

Yucaipa Valley Water District

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