



ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA
TRABUCO CANYON WATER DISTRICT
32003 DOVE CANYON DRIVE, TRABUCO CANYON, CA
ADMINISTRATION FACILITY, BOARDROOM
DECEMBER 7, 2022 AT 7:00 AM

COMMITTEE MEMBERS

Stephen Dopudja, Committee Chair
Michael Safranski, Committee Member
Ed Mandich, Committee Member Alternate

DISTRICT STAFF

Fernando Paludi, General Manager
Michael Perea, District Secretary
Lorrie Lausten, District Engineer
Gary Kessler, Water System Superintendent
Oscar Ulloa, Wastewater Superintendent
Jason Stroud, Maintenance Superintendent

AGENDA NOTE:

Trabuco Canyon Water District (District) will make this Engineering/Operational Committee Meeting available by telephone audio as follows:

Telephone Audio: 1 (669) 900-6833

Access Code: 973-7562-7682

Persons desiring to monitor the Committee meeting agenda items may download the agenda and documents on the internet at www.tcwd.ca.gov. You may submit public comments by email to the Committee at mperea@tcwd.ca.gov. In order to be part of the record, emailed comments on meeting agenda items must be received by the District at the referenced e-mail address not later than 7:00 a.m. (PDT) on the day of the meeting.

CALL MEETING TO ORDER

VISITOR PARTICIPATION

Members of the public wishing to address the Committee regarding a particular item on the agenda are requested to submit public comments by email to the Committee at mperea@tcwd.ca.gov. The Committee Chair will call on the visitor following the Committee's discussion about the matter. Committees do not constitute a quorum of the Board of Directors and Committee Members cannot make decisions on matters. The Committee makes recommendations only to the Board of Directors. Members of the public will be given the opportunity to speak to the Committee prior to making a recommendation on the matter. For persons desiring to make verbal comments and utilizing a translator to present their comments into English reasonable time accommodations, consistent with State law, shall be provided. Please limit comments to three minutes.

ORAL COMMUNICATION

Members of the public who wish to make comment on matters not appearing on the agenda are requested to submit oral communication by email to the Committee at mperea@tcwd.ca.gov. Under the requirements of State Law, Directors cannot take action on items not identified on the agenda and will not make decisions on such matters. The Board President may direct District Staff to follow up on issues as may be deemed appropriate. For persons desiring to make verbal comments and utilizing a translator to present their comments into English reasonable time accommodations, consistent with State law, shall be provided. Please limit comments to three minutes.

COMMITTEE MEMBER COMMENTS

REPORT FROM THE GENERAL MANAGER

TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA | DECEMBER 7, 2022

ENGINEERING MATTERS

PRESENTER(S): FERNANDO PALUDI, GENERAL MANAGER
MICHAEL PEREA, ASSISTANT GENERAL MANAGER
LORRIE LAUSTEN, DISTRICT ENGINEER

ITEM 1: ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP

RECOMMENDED ACTION:

Approve the following Engineering/Operational Committee Meeting Recap(s) and recommend that the Board receive and file same (Consent Calendar).

1. *November 2, 2022 Committee Meeting*

ITEM 2: DOVE DAM AIR VENT PIPE REPAIR

RECOMMENDED ACTION:

1. *Receive information at the time of the Committee meeting.*
2. *Recommend the Board of Directors authorize the General Manager to execute a contract for the Dove Dam Air Vent Pipe Repair to Myers Marine Division, LLC in the not to exceed amount of \$95,620 (Action Calendar).*

ITEM 3: PROPOSED CONTRACT CHANGE ORDER WITH FERGUSON WATERWORKS FOR AUTOMATIC METER READING/AUTOMATED METERING INFRASTRUCTURE (AMR/AMI) PROJECT

RECOMMENDED ACTION:

1. *Receive information at the time of the Committee Meeting.*
2. *Recommend the Board of Directors approve Contract Change Order No. 1 with Ferguson Waterworks for the District's Automatic Meter Reading/Automated Metering Infrastructure (AMR/AMI) Project for a not to exceed amount of \$19,076 (Action Calendar).*

ITEM 4: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

1. *Other Projects*

RECOMMENDED ACTION:

Committee to receive project status updates at time of the Committee Meeting.

OPERATIONAL MATTERS

PRESENTER(S): GARY KESSLER, WATER SYSTEM SUPERINTENDENT
OSCAR ULLOA, WASTEWATER OPERATIONS SUPERINTENDENT
JASON STROUD, MAINTENANCE DEPARTMENT SUPERINTENDENT

ITEM 5: WATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.



**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA | DECEMBER 7, 2022**

ITEM 6: WASTEWATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

ITEM 7: MAINTENANCE DEPARTMENT UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

REGULATORY AND OTHER MATTERS

ITEM 8: OTHER MATTERS/REPORTS

RECOMMENDED ACTION:

Hear Other Matters/Reports that may have arisen after the posting of the agenda.

ADJOURNMENT

AVAILABILITY OF AGENDA MATERIALS

Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the Trabuco Canyon Water District Board of Directors in connection with a matter subject to discussion or consideration at an open meeting of the Board of Directors are available for public inspection at the Trabuco Canyon Water District Administrative Facility, 32003 Dove Canyon Drive, Trabuco Canyon, California (District Administrative Facility) or will be posted online on the District's website located at www.tcwd.ca.gov. If such writings are distributed to members of the Board less than 72 hours prior to the meeting, they will be available online at www.tcwd.ca.gov at the same time as they are distributed to the Board Members, except that, if such writings are distributed immediately prior to or during the meeting, they will be posted online on the District's website located at www.tcwd.ca.gov.

COMPLIANCE WITH THE REQUIREMENTS OF CALIFORNIA GOVERNMENT CODE SECTION 54954.2

In compliance with California law and the Americans with Disabilities Act, if you need special disability-related modifications or accommodations, including auxiliary aids or services in order to participate in the meeting, or if you need the agenda provided in an alternative format, please contact the District Secretary at (949) 858-0277, at least 48 hours in advance of the scheduled Board meeting. Notification at least 48 hours prior to the meeting will assist the District in making reasonable arrangements to accommodate your request. The Board Meeting Room is wheelchair accessible.



**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 7, 2022**

ADMINISTRATIVE MATTERS

ITEM 1: ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP

RECOMMENDED ACTION:

Approve the following Engineering/Operational Committee Meeting Recap(s) and recommend that the Board receive and file same (Consent Calendar):

1. *November 2, 2022 Committee Meeting*

CONTACTS (staff responsible): PALUDI/PEREA/SANGI



**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | NOVEMBER 2, 2022**

DIRECTORS PRESENT

Stephen Dopudja, Committee Chair
Mike Safranski, Committee Member

STAFF PRESENT

Michael Perea, Assistant General Manager
Lorrie Lausten, District Engineer
Gary Kessler, Water Superintendent
Oscar Ulloa, Wastewater Superintendent
Jason Stroud, Maintenance Superintendent

STAFF ABSENT

Fernando Paludi, General Manager

PUBLIC PRESENT

None

CALL MEETING TO ORDER

Director Dopudja called the November 2, 2022 Engineering/Operational Committee Meeting to order at 7:00 a.m.

VISITOR PARTICIPATION

No comments were received.

ORAL COMMUNICATION

No comments were received.

COMMITTEE MEMBER COMMENTS

No comments were received.

REPORT FROM THE ASSISTANT GENERAL MANAGER

Mr. Perea reported that the General Manager was not in attendance as he was on vacation.

ITEM 1: ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP

Mr. Perea presented the Engineering/Operational Committee Meeting Recap for Committee review in accordance with the agenda.

RECOMMENDED ACTION

The Committee recommended that the Engineering/Operational Committee Meeting Recap be forwarded to the Board of Directors for approval (Consent Calendar).

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | NOVEMBER 2, 2022**

ITEM 2: GOLF CLUB SEWER LIFT STATION SURGE TANK AWARD

Mr. Perea introduced this matter for Committee consideration. Ms. Lausten provided a handout that summarized the proposals for a new surge tank from two vendors, and she mentioned that District staff recommends purchasing the surge tank ahead of the construction contract due to potential fulfillment delays. Ms. Lausten added that District staff is currently working with both vendors related to the acceptance of the District's terms and conditions. Discussion occurred concerning surge tank costs and the timeline for equipment fulfillment. Ms. Lausten recommended Blacoh for awarding the contract, but that District staff needs to finalize the terms and conditions negotiations.

RECOMMENDED ACTION:

The Committee recommended forwarding this matter to the Board of Directors for consideration at the next Regular Board Meeting (Action Calendar).

ITEM 3: PARTH DEVELOPMENT CONDITIONAL WILL SERVE LETTER

Mr. Perea presented this matter for Committee consideration. Ms. Lausten mentioned this matter was for informational purpose only and that no action was required. Ms. Lausten presented a draft Conditional Will Serve Letter for the landowner, and she reviewed the conditional requirements with the Committee.

RECOMMENDED ACTION:

Informational item only. No action was taken.

ITEM 4: DOVE DAM OUTLET REPAIR ALTERNATIVES EVALUATION

Mr. Perea introduced this matter for Committee review. Ms. Lausten provided a brief review of recent repairs performed at the Dove Dam outlet and vent pipe, and she reported that District staff has requested a proposal from Hazen and Sawyer to prepare a report that provides repair alternatives to the dam outlet structure. Discussion occurred concerning the necessity of the evaluation report. Mr. Perea commented that the District is required to prepare a technical memorandum of proposed repairs to the dam per the Dove Dam Agreement with Dove Canyon Master Association.

RECOMMENDED ACTION:

The Committee recommended that the Board of Directors authorize the General Manager to execute Amendment No. 2 for the Dove Dam Repair Alternative Evaluation and Cost Estimate to Hazen and Sawyer in the not to exceed amount of \$44,528 (Action Calendar).

ITEM 5: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING DIMENSION WATER TREATMENT PLANT OFFICE

Mr. Perea introduced this informational matter for Committee review. Ms. Lausten reported that District staff received only one bid from Ferreira Construction for this project, and that the costs exceeded the project budget therefore staff will work with JIG Engineering Consultant to re-evaluate the project options. Ms. Lausten added that District staff will perform certain preliminary utility excavation onsite work to prepare for new telecommunications services. Discussion occurred concerning the potential for facility improvements for backup power generation and power testing.

RECOMMENDED ACTION:

Informational item only. No action was taken.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | NOVEMBER 2, 2022**

ITEM 6: OTHER ENGINEERING AND OPERATIONS PROJECTS

1. Arc Flash Incident Energy Analysis RFP

Ms. Lausten reported that District staff has issued a request for proposals for this work, and she mentioned that TESCO Controls performed this work last year. Ms. Lausten estimated that this work would cost approximately \$75K to \$100K.

2. Master Plan and Condition Assessment Update

Ms. Lausten reported that Hazen and Sawyer will be providing a second draft report to District staff this week and that a Special Board Meeting Workshop has been scheduled for November 21st for a presentation of the findings.

3. Trabuco Creek Bridge Replacement Update

Ms. Lausten provided a brief update on this Orange County Public Works (OCPW) project, and she reported that this project has potential impacts to the District's potable water transmission pipelines that cross Trabuco Creek. Discussion occurred concerning project schedule timeline and inter-agency collaboration efforts to date.

4. DISH Wireless Cellular Site at Dove Reservoir

Ms. Lausten provided a brief update on this project, and she reported that DISH Wireless has approached the District for the installation of a cellular site at Dove Reservoir in the Dove Canyon community. Ms. Lausten mentioned that the vendor has requested to utilize the District's easement for access to the District's Dove Reservoir property for a new site, but she recommended that the vendor request an easement from the Dove Canyon Master Association Board of Directors. The Committee agreed with Ms. Lausten's recommendation.

5. Other Projects

There were no other projects discussed.

RECOMMENDED ACTION

The Committee received the status updates. There was no action taken.

ITEM 7: WATER SYSTEM UPDATES

Mr. Kessler reviewed the projects and repairs for the prior month, and he reported that Water Operations staff has completed the following tasks:

1. Replaced the main air supply to filter #4 at Dimension Water Treatment Plant.
2. Finished installing all four (4) effluent pumps and motors at the Ground Water Treatment Facility.
3. Installed a new chlorine analyzer and chemical feed line at the Ground Water Treatment Facility.
4. Worked with Tesco Controls on the SCADA upgrade at Dimension Water Treatment Plant and Ridgeline Pump Station.
5. Flushed thirty-two (32) hydrants in the Walden Homes and Robinson Ranch communities.
6. Worked with Delco Sales to service eleven (11) PRV's throughout the distribution system.

Mr. Kessler reviewed the updated Monthly Water System Operations Summary with the Committee.

RECOMMENDED ACTION

The Committee received the status update. There was no action taken.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | NOVEMBER 2, 2022**

ITEM 8: WASTEWATER SYSTEM UPDATES

Mr. Ulloa reviewed the projects and repairs for the prior month, and he reported that Wastewater Operations staff had completed the following tasks:

1. Replaced the chlorine transfer pump at the Wastewater Treatment Plant.
2. Repaired a leak on the influent trunk line to East SBR at the Wastewater Treatment Plant.
3. Installed a weather station at the Wastewater Treatment Plant.
4. Prepped and successfully passed an inspection of the Wastewater Treatment Plant that was conducted by the State Water Resources Control Board (SWRCB).

Mr. Ulloa reviewed the Monthly Non-Domestic Water System Summary with the Committee.

Mr. Perea reported that he met with the DCMA Water Quality Ad Hoc Committee, at their request, to provide an overview of the District's recycled water treatment methods and distribution system, and he mentioned that he committed to provide a general tour of the facility to the Committee members in the near future. Discussion occurred concerning the District's recycled water system conveyance system.

RECOMMENDED ACTION

The Committee received the status update. There was no action taken.

ITEM 9: MAINTENANCE DEPARTMENT UPDATES

Mr. Stroud reviewed the projects and repairs for the prior month, and he reported that Maintenance staff completed the following tasks:

1. Cleaned out the old electrical storage bin and reorganized/restocked the new electrical storage room in the maintenance shop at the Wastewater Treatment Plant.
2. Performed preventative maintenance on District fleet vehicles.
3. Assisted the Wastewater Operations with a temporary sewer trunkline repair located in the SBR dry pit.
4. Worked with the Water Operations to troubleshoot a level controller at the Topanga Booster Pump Station, hydro-pneumatic tank.
5. Worked with TESCO Controls to troubleshoot a VFD issues at the Dove Recycle Booster Station.
6. Worked with Hydrotech Electric to install a new flow meter at the Dove Recycle Booster Station.
7. Worked with Water Operations to troubleshoot the backwash pumps at Dimension Water Treatment Plant.
8. Modified the booster pump brackets at the Ground Water Treatment Plant (Wells) to work with the new pumps.

RECOMMENDED ACTION

The Committee received the status update. There was no action taken.

ITEM 10: OTHER MATTERS/REPORTS

There were no other matters presented.

RECOMMENDED ACTION

There was no action taken.

ADJOURNMENT

Director Dopudja adjourned the November 2, 2022 Engineering/Operational Committee Meeting at 8:03 a.m.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 7, 2022**

ENGINEERING MATTERS

ITEM 2: DOVE DAM AIR VENT PIPE REPAIR

Trabuco Canyon Water District (District) operates Dove Dam in the Dove Canyon community via an agreement with the Dove Canyon HOA. The Division of Safety of Dams (DSOD) performs a yearly inspection on the Dam, outlet structure, and appurtenances. Operations Staff is responsible for completing the recommended maintenance as outlined in the DSOD report. In 2019, Staff contracted with Myers Marine Diving to inspect the outlet structure, sluice gate, gate stem and supports. The report on these items indicated that the stem and supports have significant corrosion and this equipment should be replaced.

In the past three months, the 6" PVC air vent pipe, which is connected to the 30" diameter discharge drain pipe, failed, allowing lake water to fill the discharge pipe and slowly drain the lake (Exhibit 1). Staff contracted with Myers Marine to make temporary repairs to the pipe and is concerned that the air vent pipe is significantly vulnerable to further damage. Staff recommends repairing the pipe which includes the following components (Exhibit 2):

- Epoxy each of the joints to prevent another separation;
- Fiberglass wrapping the area from the bottom to the surface of the lake;
- Re-bracing the pipe to the supports with stainless steel straps;
- Constructing stainless steel angle iron bracing supports in the areas that cannot be supported to the concrete supports, and;
- Replacing the area above the water line with new piping.

Below is a summary of the costs for these repairs:

Dove Dam Vent Pipe Leak Costs		
Repair	Item	Cost
8/31/2022	Repair Break	\$ 9,825.00
11/15/2022	Repair Break	\$ 8,240.00
11/21-11/22	Jet Vent Pipe	\$ 16,320.00
Proposed	Epoxy, Fiberglass Wrap and Supports	\$ 95,620.00
Total:		\$ 130,005.00

District Staff recommends contracting with Myers Marine for the repairs, which will provide Staff time to design the permanent fix to the facility.

FUNDING SOURCE:

General Fund

FISCAL IMPACT:

Not Budgeted

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption

RECOMMENDED ACTION:

1. *Receive information at the time of the Committee meeting.*
2. *Recommend the Board of Directors authorize the General Manager to execute a contract for the Dove Dam Air Vent Pipe Repair to Myers Marine Division, LLC in the not to exceed amount of \$95,620 (Action Calendar).*

EXHIBIT(S):

1. Outlet Structure Exhibit
2. Myers Marine Division Proposal

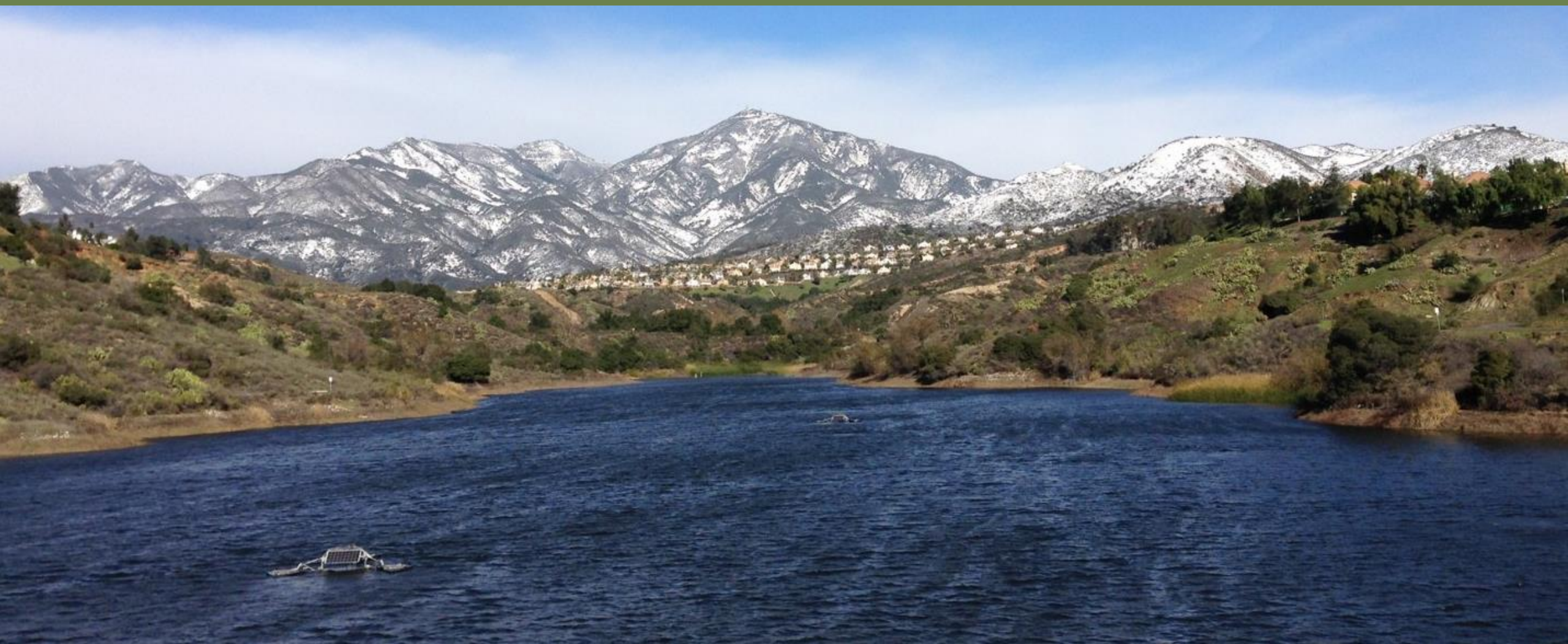
CONTACTS (staff responsible): LAUSTEN

Dove Lake Air Vent Pipe Repair

Trabuco Canyon Water District

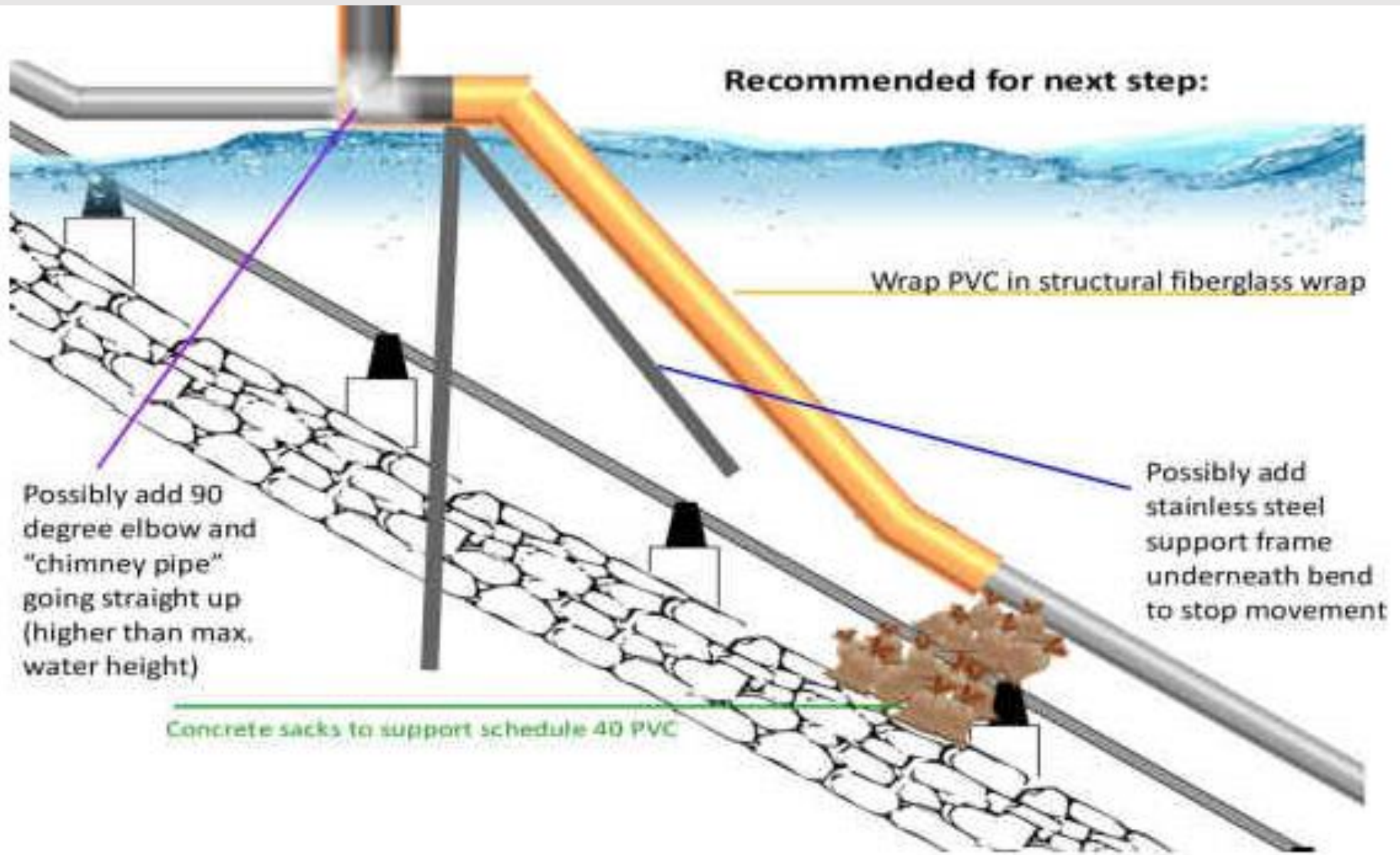
E&O Meeting

12/7/2022



Existing Air Vent Pipe and Supports





Repair-Will not install chimney pipe



Myers Marine Division, LLC.

(Subsidiary of Steve T. Myers Construction, Inc.)

PROPOSAL

September 29, 2022

(Revised from proposal submitted 09/21/22)

Proposal Submitted To:

Trabuco Canyon Water District (TCWD)

32003 Dove Canyon Drive

Trabuco Canyon, CA 92679

Contact:

Lorrie Lausten, Principal, Engineer

Phone: (949) 858-0277 x 130

Email: llausten@tcwd.ca.gov

Job: Dove Lake Dam Repair II

Scope of Work:

- Provide all materials and labor necessary to clear sediment and debris away from PVC vent pipe.
- Approximate length and width of area to be cleared 200 ft. in length and 4-5 ft. in width.
- Provide 4-man dive team and full dive spread as deemed necessary until sediment and debris are cleared. Clean PVC pipe with light abrasive pad. (Jetting is to also be performed at PVC in the same vicinity as slide gate).
- PVC pipe to be cleared of marine growth in preparation for fiberglass wrap application.
- Jetting is projected to take a maximum of 3 days.
- Installation of Splash Zone 2-part marine epoxy at submerged pipe joints. (Myers Marine Division LLC to purchase Splash Zone epoxy).
- Fiberglass wrap of PVC pipe and adding support (stainless steel angle iron bracing) is projected to take 5 days.
 - * Myers Marine Division LLC to purchase fiberglass wrap and install. (SynthoGlass XT 4"x30' 10SF FP, SynthoGlass UV White 4" x 30')
 - * SynthoGlass wrap will be applied from deepest depth possible to shoreline.
- Myers Marine Division LLC to fabricate, provide, and install stainless steel supports as needed.

Contractor agrees to complete work promptly and leave premises as clean as upon arrival. Contract not valid until accepted by an officer of the corporation. Customer is responsible for all code or rule compliance, variances, permits, fees, assessments or taxes, or other governing body ordinances with regard to this contract.

All material is guaranteed to be as specified, and the above work to be performed in a substantial workmanlike manner for the sum of **\$95,620.00**

With payments to be made as follows: Payments due upon invoicing.

Note – This proposal may be withdrawn by us if not accepted within 30 days.

Myers Marine, LLC Proposal:

Myers Marine Division LLC, propose the above for the **total amount of \$ 95,620.00**



Steve T. Myers, CEO

9/29/22

Date

Acceptance:

Name of Authorized Representative, Title

Date

Steve T. Myers Construction, Inc. will retain the services of Myers Marine Division, LLC. as a wholly owned subsidiary of Steve T. Myers Construction, Inc. to perform all diving tasks.

1663 Industrial Ave. #A, Norco, CA. 92860 (951) 403-5581 f:(951) 817-0527

myersmarinedivision@gmail.com

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 7, 2022**

ENGINEERING MATTERS

ITEM 3: PROPOSED CONTRACT CHANGE ORDER WITH FERGUSON WATERWORKS FOR AUTOMATIC METER READING/AUTOMATED METERING INFRASTRUCTURE (AMR/AMI) PROJECT

The Automatic Meter Reading/Advanced Metering Infrastructure (AMR/AMI) project is a water use efficiency project approved by the Board of Directors for Fiscal Year 2022-2023 Capital Improvement Project (CIP) budget. The AMR/AMI project includes the upgrade of approximately 3,130 existing touch-read meters and upgrading 1,106 AMR meters with an AMI component (antenna) that will automatically collect and store hourly consumption data, aiding in water conservation, improved water management, and energy savings. Upon completion, this project will allow for improved customer service and an enhanced customer experience with the District and potential operational benefits in terms of labor and equipment resource efficiencies. Additionally, the District was successfully awarded WaterSMART Water and Energy Efficiency grant from the Bureau of Reclamation (Reclamation) of \$500,000 in the Funding Group 1.

At the September 16, 2021 Regular Board Meeting, the Board of Directors authorized the General Manager to contract with Ferguson Waterworks for the AMR/AMI System Implementation and Contract Services. The project is currently underway and approximately seventy percent completed to date with the goal to complete the entire project by early 2023. District staff has determined that a mistake was made in the approved project proposal which primarily impacts the two-inch meters which are exclusively dedicated irrigation meters (DIM). Ferguson Waterworks proposed positive displacement (PD) meters for the two-inch category as opposed to turbine meters. Unfortunately, PD meters are typically used in lower flow applications and do not meet the District’s needs for metering DIMs. District staff has negotiated with Ferguson Waterworks for the return of 100 two-inch PD meters for a project credit and is ordering 83 turbine meters, 3 additional 1 ½” PD meters, and additional AMI antennas to meet system needs. The breakdown of the credit and order costs are indicated below:

1. Original Costs						
Size	Type	Cost		Qty		Total
2.0"	PD	\$	650.00	124	\$	80,600
					\$	80,600
Total w/ Applicable Taxes					\$	87,048
2. Returned Meters (Project Credit)						
Size	Type	Cost		Qty		Total
2.0"	PD	\$	650.00	100	\$	(65,000)
					\$	(65,000)
Total w/ Applicable Taxes					\$	(70,200)
3. Updated Meter Costs						
Size	Type	Cost		Qty		Total
1.5"	PD	\$	525.00	3	\$	1,575
2.0"	Turbine	\$	960.00	83	\$	79,680
2.0"	Antennas	\$	22.00	64	\$	1,408
					\$	82,663
Total w/ Applicable Taxes					\$	89,276
Costs to District (2+3)					\$	19,076

District staff proposes a contract change order in the amount of \$19,076 to order these additional meters and components to complete the project. More information may be presented at the time of the meeting.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 7, 2022**

FUNDING SOURCE:

FY 2022/23 Capital Improvement Project Budgets & Bureau of Reclamation WaterSmart Grant Funding

FISCAL IMPACT:

FY 2022/23:	\$1,200,000
Bureau of Reclamation	
<u>WaterSmart Grant Funding:</u>	<u>\$ 500,000</u>
Approved Project Funding:	\$1,700,000

CONTRACT CHANGE ORDER IMPACTS

Approve CIP Budget	\$1,700,000
Original Project Amount Bid	\$1,656,943
Proposed CCO 1	\$ 19,076
Amended Project Costs	\$1,676,019
Project Costs Overage, %	1.2%

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption filed July 23, 2020

COMMITTEE STATUS:

This matter has not been reviewed at the Committee level.

RECOMMENDED ACTIONS:

1. *Receive information at the time of the Committee Meeting.*
2. *Recommend the Board of Directors approve Contract Change Order No. 1 with Ferguson Waterworks for the District's Automatic Meter Reading/Automated Metering Infrastructure (AMR/AMI) Project for a not to exceed amount of \$19,076 (Action Calendar).*

EXHIBIT(S):

None

CONTACTS (staff responsible): PALUDI/PEREA

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 7, 2022**

ENGINEERING MATTERS

ITEM 4: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

1. Other Projects

RECOMMENDED ACTION:

Committee to receive project status updates at time of the Committee Meeting.

EXHIBIT(S):

None

CONTACTS (staff responsible): PALUDI/PEREA/LAUSTEN

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 7, 2022**

OPERATIONAL MATTERS

ITEM 5: WATER SYSTEM UPDATES

The following is a brief report of the water system for **November 2022**.

Projects and Repairs

Water Operations staff performed and/or completed the following tasks and projects:

1. Worked with Ferreira Construction to repair a failed service saddle on Falcon and Santiago.
2. Two Water Department Operators travelled to Tesco Controls in Temecula to field test the PLC's for Falcon Pump Station, Cooks Reservoir, Field Office and Topanga Booster Pump Station.
3. Worked with the Maintenance Department, Hydrotech Electric and Tesco Controls to install a new PLC at the Falcon Pump Station.
4. Worked with Tesco Controls on the radio change over at Falcon Pump Station, Saddle Crest Development, Joplin and Dove Reservoir.
5. Serviced seven (7) Clavals with Delco Sales.
6. Flushed forty-two (42) hydrants in the Robinson Ranch Community.
7. Excavated to locate a Raw Water Line for the new office at Dimension Water Treatment Plant (DWTP) and relocate a sample site.

Monthly Water System Operations Summary

The Monthly Water System Operations Summary is attached for the Committee's review. Any anomalies will be presented at the time of the Engineering/Operational Committee Meeting.

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

1. Monthly Water System Operations Summary

CONTACTS (staff responsible): PEREA/KESSLER

TRABUCO CANYON WATER DISTRICT
MONTHLY WATER SYSTEM OPERATIONS SUMMARY - 2022

SYSTEM PRODUCTION/SUPPLIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
Number of Days	31	28	31	30	31	30	31	31	30	31	30	31	365
Dimension WTP	8%	17%	25%	33%	42%	50%	58%	67%	75%	83%	92%	100%	
SAC Pipeline Meter	138.0	151.0	51.0	0.0	0.0	0.0	203.0	261.0	229.0				1,033.0
Backwash, AF	4.0	4.0	1.0	0.0	0.0	0.2	4.0	5.0	5.0	5.0			28.2
Flushwater, AF	6.0	7.0	2.0	0.0	0.0	0.5	6.0	9.0	9.0	9.0			48.5
DWTP Effluent (1)	141.0	151.0	47.0	0.0	0.0	0.0	214.0	262.0	229.0	213.0			1,257.0
Groundwater, AF													
Trabuco Creek GWTF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
U.S. Well AF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Total Groundwater (2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Water Purchases, AF													
SMWD Treated Interconnection	0.0	0.0	27.0	57.0	75.0	54.0	3.0	0.0	13.0	0.0			229.0
IRWD Treated Interconnections	3.0	0.0	80.0	117.0	123.0	115.0	20.0	0.0	0.0	0.0			458.0
IRWD Irvine Lake	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0
Total Purchases (3)	3.0	0.0	107.0	174.0	198.0	169.0	23.0	0.0	13.0	0.0			687.0
Total Supply													
Total Supply AF (1,2,3)	144.0	151.0	154.0	174.0	198.0	169.0	237.0	262.0	242.0	213.0			1,944.0
% Year - Peak Prod. - 2,449 AF (2018)	6%	12%	18%	25%	34%	40%	50%	61%	71%	79%			-
AF/Day	4.6	5.4	5.0	5.8	6.4	5.6	7.6	8.5	8.1	6.9			6.4
CFS/Day, Avg.	2.3	2.7	2.6	2.9	3.2	2.7	3.8	3.6	3.8	3.4			3.1
Reservoir Storage													
Monthly Average, MG	8.8	9.0	8.9	8.8	9.0	8.9	8.7	8.8	9.0	8.9			8.9
Monthly Average, AF	27.0	27.6	27.3	27.0	27.6	27.3	26.7	27.0	27.6	27.3			27.3
Days of Storage	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	4.0	4.0			3.6
SYSTEM DEMANDS													
District Operations, AF (1)													
Dimension WTP	0.12	0.10	0.03	0.00	0.00	0.01	0.26	0.23	0.17	0.15			1.08
Robinson Ranch WWTP	0.002	0.002	0.004	0.005	0.005	0.005	0.005	0.009	0.005	0.005			0.05
Supplemental Domestic to RW Res.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Subtotal	0.1	0.1	0.0	0.0	0.0	0.0	0.3	0.2	0.2	0.2			1.1
System Losses, AF (2)													
Flushing	0.00	0.00	0.52	0.00	0.00	0.00	0.63	0.66	0.27	0.3			2.4
Sewer Cleaning	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.0			0.2
Line Breaks	0.31	0.15	0.00	0.92	0.08	0.00	0.00	0.23	0.05	0.0			1.7
Subtotal	0.32	0.17	0.54	0.94	0.09	0.02	0.64	0.91	0.33	0.31			4.26
Zone Demands, AF (3)													
Topanga Canyon	2.0	2.0	2.0	2.0	2.6	3.0	3.0	3.0	3.0	2.4			25.0
Falcon Estates	0.4	0.5	0.6	0.7	0.9	0.8	0.8	0.9	0.9	0.7			7.2
Rose PRV/The Oaks	3.0	2.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0	2.8			30.8
Canyon Creek	0.2	0.5	0.3	0.3	0.3	0.4	0.5	0.5	0.4	Inop.			3.4
Rose Pump Station	0.4	0.2	0.2	0.1	0.1	0.0	0.2	0.1	0.1	0.1			1.5
Robinson Ranch	32.0	39.0	42.0	43.0	43.0	59.0	80.0	84.0	66.0	61.4			549.4
Dove Canyon	59.0	62.0	70.0	70.0	81.0	85.0	90.0	88.0	84.0	75.2			764.2
Subtotal	97.0	106.2	119.1	119.1	131.9	151.2	177.5	179.5	157.4	142.6			1,381.5
Total System Demand (1,2,3)	97.4	106.5	119.7	120.0	132.0	151.3	178.4	180.6	157.9	143.1			1,386.9

TRABUCO CANYON WATER DISTRICT
MONTHLY WATER SYSTEM OPERATIONS SUMMARY - 2022

System Demands**													
AF/Day	4.6	5.4	5.0	5.8	6.4	5.5	7.6	7.3	7.7	7.0			6.2
Daily Average, CFS	2.3	2.6	2.6	2.9	3.2	2.8	3.8	3.7	3.9	3.4			3.1
Other Water Deliveries/Purchases													
Ridgeline (DWTP Delivery)	130.0	140.0	43.0	0.0	0.0	0.0	202.0	247.0	214.0	198.3			1,174.3
El Toro (Interconnection Purchase)	3.0	0.0	80.0	117.0	123.0	115.0	20.0	0.0	0.0	0.0			458.0
Baker WTP (CSC Delivery)	125.5	114.2	51.3	0.0	0.0	16.8	91.9	112.0					511.7
Portola Hills (Wholesale Purchase)	10.0	10.0	10.0	11.0	12.0	12.0	13.0	13.0	16.0	14.0			121.0
Skyridge (Wholesale Purchase)	1.7	1.6	2.2	1.9	2.2	2.4	2.3	2.7	2.1				19.1
* Usage estimated	** Excludes Operational use, losses, and supplement to Recycled Water Reservoir (RW)												

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 7, 2022**

OPERATIONAL MATTERS

ITEM 6: WASTEWATER SYSTEM UPDATES

The following is a brief report of the wastewater system for **November 2022**.

Projects and Repairs

Wastewater Operations staff performed and/or completed the following tasks and projects:

1. Replaced old solenoids on the surge tank at Golf Club Lift Station in the Dove Canyon Community.
2. Ran a new blow off lines for the surge tank at the Golf Club Lift Station in the Dove Canyon Community.
3. Cleaned a V-Ditch at the Dove Canyon Pump Station.
4. Inspected grease interceptors at the local businesses for Fat, Oil and Grease (FOG).
5. Completed the Cla-Val Maintenance on the recycled distribution system.
6. Assisted divers at the Dove Lake air vent repair.
7. Cleaned the O’Neil wet well.
8. Removed the old lighting at Robinson Ranch Wastewater Treatment Plant (RRWWTP) and replaced it with LED’s at key locations.

Sewer System Management Plan (SSMP) Report

The purpose of the program is to communicate on a regular basis with the public on the development, implementation, and performance of TCWD’s SSMP. Status updates on the work and type of work performed on the sewer system will be provided, including sewer line and manhole cleaning, system repairs, lift station cleaning, and updates from satellite facilities:

Sewer System Management Plan (SSMP) Monthly Update	
Total Sewer Line, Feet*	212,045
Total Sewer Line Cleaned (Ft) – Month	9029
Total Sewer Line Cleaned (Ft) – Cleaning Cycle	22,029
Cleaning Cycle Period (Mos.) [Start date: 9/1/22]	2
Total Sewer Line Cleaned, %	10%
The Oaks at Trabuco – Pumping Frequency for the Month	13
O’Neill Park Sewer System Status	Ok
O’Neill Park Sewer System Repairs	None
SSMP Quarterly Report – <i>Next Quarterly Report</i>	4Q 2022
SSMP Program Audit – <i>Next Audit Report**</i>	February 2023

**This amount includes the OC Parks-owned O’Neill Park sewer system the District is contracted to clean.*

***Periodic internal audits shall be conducted, at a minimum every two years, with reports kept on file. The audit shall focus on evaluating the effectiveness of the SSMP and TCWD’s compliance with the mandatory elements of TCWD’s SSMP:*

Monthly Recycled Water System Operations Summary

The Monthly Recycled Water System Operations Summary is attached for the Committee’s review. Any anomalies will be presented at the time of the Engineering/Operational Committee Meeting.

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

1. Monthly Recycled Water System Operations Summary

CONTACTS (staff responsible): PEREA/ULLOA

TRABUCO CANYON WATER DISTRICT | NON-DOMESTIC WATER SYSTEM SUMMARY - 2022

RECYCLED WATER SUPPLY															
	MAX	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	FIVE YEAR AVG
WWTP Reclaimed Water Production, AF	78.3	49.9	42.6	43.2	44.6	44.1	42.6	44.6	44.1	42.3	43.2			441.3	534.4
Reclaimed Reservoir Level, FT	1274.5	1,273.8	1,274.2	1,270.5	1,268.0	1,263.5	1,261.0	1,261.4	1,261.0	1,258.8	1,261.4			-	-
Reclaimed Reservoir Free Board, FT	25.5	0.7	0.3	4.0	6.5	11.0	13.5	13.1	13.5	15.7	13.1			-	-
Reclaimed Reservoir Storage, AF	145.5	138.6	140.5	122.8	108.9	84.8	73.2	75.0	73.2	65.9	75.0			-	-
Supplemental Domestic Water Added, AF	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	44.5

RECYCLED WATER SYSTEM DEMAND															
NON DOMESTIC WATER USER	ALLOC. AF	8% JAN	17% FEB	25% MAR	33% APR	42% MAY	50% JUN	58% JUL	67% AUG	75% SEP	83% OCT	92% NOV	100% DEC	TOTAL	ALLOC. %
Dahlia Court	8.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			2.0	23.8%
Dove Canyon Golf Course	106.7	5.8	13.3	21.1	26.3	34.9	52.9	48.7	54.4	41.0	20.9			319.4	299.4%
Dove Canyon Master Association	279.3	13.0	5.0	14.0	21.7	28.0	24.8	28.7	24.3	23.9	17.6			200.9	71.9%
Robinson Ranch	80.2	0.8	1.0	1.2	1.7	2.4	5.0	3.3	3.7	3.0	1.9			23.8	29.7%
Trabuco Highlands	159.7	1.2	2.3	5.0	6.9	9.8	10.3	10.2	7.5	7.8	4.5			65.5	41.0%
City of RSM	0.1	0.01	0.0	0.00	0.00	0.00	0.00	0.02	0.07	0.02	0.1			0.19	143.1%
Construction Water	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	N/A
Sakaida Nursery	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0%
SMWD	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	7.7	19.0			31.0	N/A
TY Nursery	17.9	0.0	0.0	20.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0			20.9	116.7%
TOTAL, AF	653.2	21.1	21.7	62.2	56.8	75.2	93.1	91.1	94.6	83.6	64.2			663.6	101.6%
PERCENTAGE OF NDW ALLOCATION/YEAR		3.2%	6.6%	16.1%	24.8%	36.3%	50.5%	64.5%	79.0%	91.8%	101.6%				
TOTAL ANNUAL AVG. NDW AVAILABLE**	774.36														

URBAN RUNOFF CAPTURE AND REUSE															
DISTRICT FACILITY		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	FIVE YEAR AVG
Shadow Rock Detention Basin Production		0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.00	0.01	0.01			0.11	14.2
Dove Tick Creek Production*	<i>Dry Season</i>	7.4	7.1	1.1	4.6	2.4	2.7	2.2	11.1	1.9	0.0			40.5	58.8
	TCWD Portion	7.4	7.1	1.1	2.3	1.2	1.4	1.1	5.6	0.9	0.0			28.0	-
	SMWD Portion	0.0	0.0	0.0	2.3	1.2	1.4	1.1	5.6	0.9	0.0			12.5	-
Dove Lake Water Pumped		0.0	0.0	0.0	0.0	0.0	40.2	62.7	49.4	30.8	45.6			228.7	185.8
Dove Lake Free Board, Ft		3.9	3.1	1.2	0.8	0.8	2.5	7.6	12.3	12.7	20.1			-	-
Dove Lake Storage, AF		161.0	165.0	176.3	177.3	177.3	176.0	95.0	54.0	46.3	28.5			-	-
Total Rainfall, In.		0.0	0.5	1.5	0.01	0.0	0.0	0.0	0.0	0.0	0.4			2.5	14.7

* SMWD share of Dove/Tick Pump Station Dry Season Water is 50% of production. Offline during the month of October 2022.

** Based on 5-Year Average Reclaimed Water Reservoir Base Supply & Recycled Water Production

**TRABUCO CANYON WATER DISTRICT
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OPERATIONAL MATTERS

ITEM 7: MAINTENANCE DEPARTMENT UPDATES

The following is a brief report of work completed by Maintenance staff for **November 2022**.

1. Attended the WEROC quarterly meeting in person at the Fountain Valley location.
2. Attended TCWD Master Plan/CIP workshop.
3. Assisted TESCO Controls with upgrading the PLC's at the Falcon booster pump station, and Dove Lake pump station.
4. Assisted Wastewater Operations and Myers Marine (divers) with the air vent repair at Dove Lake.
5. Worked with SS Mechanical starting up the surge tank at El Toro sewer lift station.
6. Picked up truck #12 (Phoenix) from the collision center.

Projects and Repairs

Maintenance staff performed and/or completed the following tasks and projects:

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

None

CONTACTS (staff responsible): PEREA/STROUD

**TRABUCO CANYON WATER DISTRICT
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REGULATORY AND OTHER MATTERS

ITEM 8: OTHER MATTERS/REPORTS

Other Matters/Reports from the General Manager and/or District staff may be provided at the time of the Engineering/Operational Committee Meeting.

RECOMMENDED ACTION:

Hear Other Matters/Reports that may have arisen after the posting of the agenda.

EXHIBITS

None

CONTACTS (staff responsible): PALUDI/PEREA