



ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA
TRABUCO CANYON WATER DISTRICT
32003 DOVE CANYON DRIVE, TRABUCO CANYON, CA
ADMINISTRATION FACILITY, BOARDROOM
NOVEMBER 2, 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 | NOVEMBER 2, 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. *October 5, 2022 Committee Meeting*

ITEM 2: GOLF CLUB SEWER LIFT STATION SURGE TANK AWARD

RECOMMENDED ACTION:

Committee to receive information at the time of the Committee meeting.

ITEM 3: PARTH DEVELOPMENT CONDITIONAL WILL SERVE LETTER

RECOMMENDED ACTION:

Committee to receive information at the time of the Committee meeting.

ITEM 4: DOVE DAM OUTLET REPAIR ALTERNATIVES EVALUATION

RECOMMENDED ACTION:

Recommend 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

RECOMMENDED ACTION:

Committee to receive information at the time of the Committee meeting.

ITEM 6: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

1. Arc Flash Incident Energy Analysis RFP
2. Master Plan and Condition Assessment Update
3. Trabuco Creek Bridge Replacement Update
4. DISH Wireless Cellular Site at Dove Reservoir
5. Other Projects

RECOMMENDED ACTION:

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



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

OPERATIONAL MATTERS

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

ITEM 7: WATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

ITEM 8: WASTEWATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

ITEM 9: MAINTENANCE DEPARTMENT UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

REGULATORY AND OTHER MATTERS

ITEM 10: 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 | NOVEMBER 2, 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. *October 5, 2022 Committee Meeting*

CONTACTS (staff responsible): PALUDI/PEREA/SANGI



TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | OCTOBER 5, 2022

DIRECTORS PRESENT

Stephen Dopudja, Committee Chair
Mike Safranski, Committee Member

STAFF PRESENT

Fernando Paludi, General Manager
Michael Perea, Assistant General Manager
Lorrie Lausten, District Engineer
Lisa Marie Sangi, Executive Assistant
Gary Kessler, Water Superintendent
Oscar Ulloa, Wastewater Superintendent
Jason Stroud, Maintenance Superintendent

PUBLIC PRESENT

None

CALL MEETING TO ORDER

Director Dopudja called the October 5, 2022 Engineering/Operational Committee Meeting to order at 7:00 AM.

VISITOR PARTICIPATION

No comments were received.

ORAL COMMUNICATION

No comments were received.

COMMITTEE MEMBER COMMENTS

No comments were received.

REPORT FROM THE GENERAL MANAGER

Mr. Paludi provided a brief report on his attendance at the Community Associations of Rancho (CAR) meeting the prior day, and he reported on the presentation delivered by the RSM Voice group.

ITEM 1: ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP

Mr. Paludi 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(s) be forwarded to the Board of Directors for approval (Consent Calendar).

ITEM 2: DISCUSSION CONCERNING GOLF CLUB SEWER LIFT STATION REPAIRS & IMPROVEMENTS

Mr. Paludi introduced this matter for Committee consideration. Ms. Lausten provided a brief status update on this project, and she highlighted the completed operational improvements and proposed fencing improvements.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | OCTOBER 5, 2022**

Discussion occurred concerning planned operational improvements, including variable frequency drives (VFD) for the station pumps and flow measurement.

RECOMMENDED ACTION:

Committee to receive information at the time of the Committee meeting.

ITEM 3: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING ROSE CANYON AND LANG WELLS CLEANING AND PUMP INSTALLATION

Mr. Paludi presented this matter for Committee consideration, and he reported that District staff have contracted with Hazen to prepare a technical memorandum to identify key operational issues at the District's Groundwater Treatment Facility (Wells). Ms. Lausten reviewed the findings of the technical memorandum, and she commented on certain items that are currently being addressed by staff. Ms. Lausten presented quotes from Best Drilling & Pump for cleaning out the wells and Hydrotech Electric for the electrical improvements and re-installation of the well pumps for Committee consideration. Discussion occurred concerning the impact of facility pump VFDs.

RECOMMENDED ACTION:

The Committee recommended the Board of Directors authorize the General Manager to execute a contract for Rose and Lang Wells Cleaning and Pump Installation to Best Drilling and Pump, Inc. in the not to exceed amount of \$58,900 (Action Calendar).

ITEM 4: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING DIMENSION WATER TREATMENT PLANT OFFICE

Mr. Paludi introduced this informational matter for Committee review. Ms. Lausten provided a brief review of project challenges to date, and she highlighted the pre-bid schedule with the Committee. Ms. Lausten added that this matter would be agendaized for Committee consideration the following month.

RECOMMENDED ACTION:

No action was taken.

ITEM 5: OTHER ENGINEERING AND OPERATIONS PROJECTS

1. SCADA Upgrade Project

Ms. Lausten provided a project update on this project, including implementation schedule, materials procurement timeline, and project completion timeline.

2. AMR/AMI Update

Mr. Perea provided a brief update on this project, and he reported on the meter installation progress to date and the successful installation of three of the eight data collectors. Discussion occurred concerning the manner of notification to District customers and total service delay impacts to customers; Mr. Perea indicated that District staff has notified customers of the project through bill stuffers and newsletter, as well as twenty-four-hour notification prior to service interruption for the meter replacement. Mr. Perea added that the installers attempt to contact the customer immediately prior to the work by knocking on the door.

3. Trabuco Creek Pipeline Potholing

Ms. Lausten provided a brief overview of the Orange County Public Works (OCPW) bridge improvement project, and she reviewed the proposed potholing project map. Discussion occurred concerning the responsibility for covering the costs associated with the potholing work.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | OCTOBER 5, 2022**

4. Dove Lake Outlet Vent Pipe Repairs

Ms. Lausten provided a brief project update on the current temporary repair of the vent pipe, and she reviewed the proposed permanent repair costs.

5. Dove Lake Barge and Pump Project Recap

Mr. Ulloa delivered a PowerPoint presentation which reviewed this project, and he indicated this work was performed by District staff. Mr. Ulloa reported that this improved pump equipment is designed to increase the total amount of water pumped from Dove Lake to meet system demands. Discussion occurred concerning pump electrical demands and associated improvements.

6. Other Projects

There were no other projects discussed.

RECOMMENDED ACTION

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

ITEM 6: 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. Rebuilt a hydrant bury on Berkshire in the Dove Canyon Community.
2. Replaced a customer's water service on Prairie View in the Robinson Ranch Community.
3. Worked with Delco Services to preform maintenance on 17 Cla-Val's throughout the distribution system.
4. Worked with Flo-Services to install a small Backwash Waste Pump at the Dimension Water Treatment Plant.
5. Flushed twenty-nine (29) fire hydrants in the Rancho Cielo and Walden Communities.

Mr. Kessler reviewed the Monthly Water System Operations Summary with the Committee, and he reported that Water Operations staff replaced a system valve in the Rancho Cielo Community with the assistance of Ferreira Construction.

RECOMMENDED ACTION

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

ITEM 7: 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. Installed the Dove Lake Barge Pump.
2. Exercised valves to the recycle system thru Robinson Ranch Road
3. Assisted the camera inspection of the hot spots in the collections system.
4. Conducted the annual maintenance for the Robinson Ranch, Dove HOA, and Golf Course CLA-VAL's

Mr. Ulloa reviewed the Monthly Non-Domestic Water System Summary with the Committee, and he reported that the pump at Tick Creek Pump Station is currently out for repairs after failing. Discussion occurred concerning the recycled water production at Dove Lake.

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Mr. Paludi reported that District staff will be meeting with the San Diego Regional Water Control Board staff related to obtaining a new recycled water permit.

Mr. Paludi reported that District staff met with the Rancho Cielo Homeowners Association to discuss converting their onsite domestic water irrigation system to recycled water, and he added that staff will perform an internal analysis on the potential system improvements and associated costs.

RECOMMENDED ACTION

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

ITEM 8: 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. Assisted Wastewater Operations with the Dove Lake pump barge build and installation.
2. Removed the small backwash pump at Dimension Water Treatment Plant and assisted Flo-Services with the new pump installation.
3. District vehicle no. 12 was serviced and repaired at the Tuttle-Click Service Center.
4. Setup TCWD's new mobile emergency generator at the Barneburg Lift Station for the preparation of a new radiator.
5. Assisted Wastewater Operations for the surge tank repair at the Golf Club Lift Station.
6. Continued support with TESCO Controls on the SCADA upgrades.

RECOMMENDED ACTION

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

ITEM 9: OTHER MATTERS/REPORTS

Director Dopudja commended District Wastewater Operations and Maintenance staff work on the Dove Lake Barge Pump project.

RECOMMENDED ACTION

There was no action taken.

ADJOURNMENT

Director Dopudja adjourned the October 5, 2022 Engineering/Operational Committee Meeting at 8:16 a.m.

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

ENGINEERING MATTERS

ITEM 2: GOLF CLUB SEWER LIFT STATION SURGE TANK AWARD

Trabuco Canyon Water District (District) owns and operates the Golf Club Sewer Lift Station (SLS) in the Dove Canyon community adjacent to the golf club driving range. This station receives wastewater flows from majority of the community by way of Bell Canyon and Barneburg Sewer Lift Stations and gravity sewer flows, and then conveys the wastewater to the Robinson Ranch Wastewater Treatment Plant via a sewer force main on Hillrise. The station was constructed in the early 1990s and had undergone only minor improvements until Fiscal Year (FY) 2021-22, when a bypass was installed, the surge tank repaired, the force main partially replaced, and the motor control center replaced. Additional critical repairs and improvements for the station are in the design phase and have been budgeted for completion in the FY 2022-23 CIP.

On May 19, 2022, the Board of Director authorized the purchase of the three Cornell pumps and two guide rail systems/discharge elbows for a total amount of \$193,286.39. Due to the continued delay in procurement of equipment, Staff is recommending purchasing the surge tank ahead of the construction contract. Staff requested proposals from Blacoh and Pulsco, and will have more information at the time of the meeting.

FUNDING SOURCE:

Capital Improvement Program

FISCAL IMPACT (PROJECT BUDGET):

\$600,000 in FY 2021-22 (complete)

\$870,000 in FY 2022-23 as described above

\$1,470,000 total CIP budget

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption was filed with the County of Orange on November 1, 2021.

RECOMMENDED ACTION:

Committee to receive information at the time of the Committee meeting.

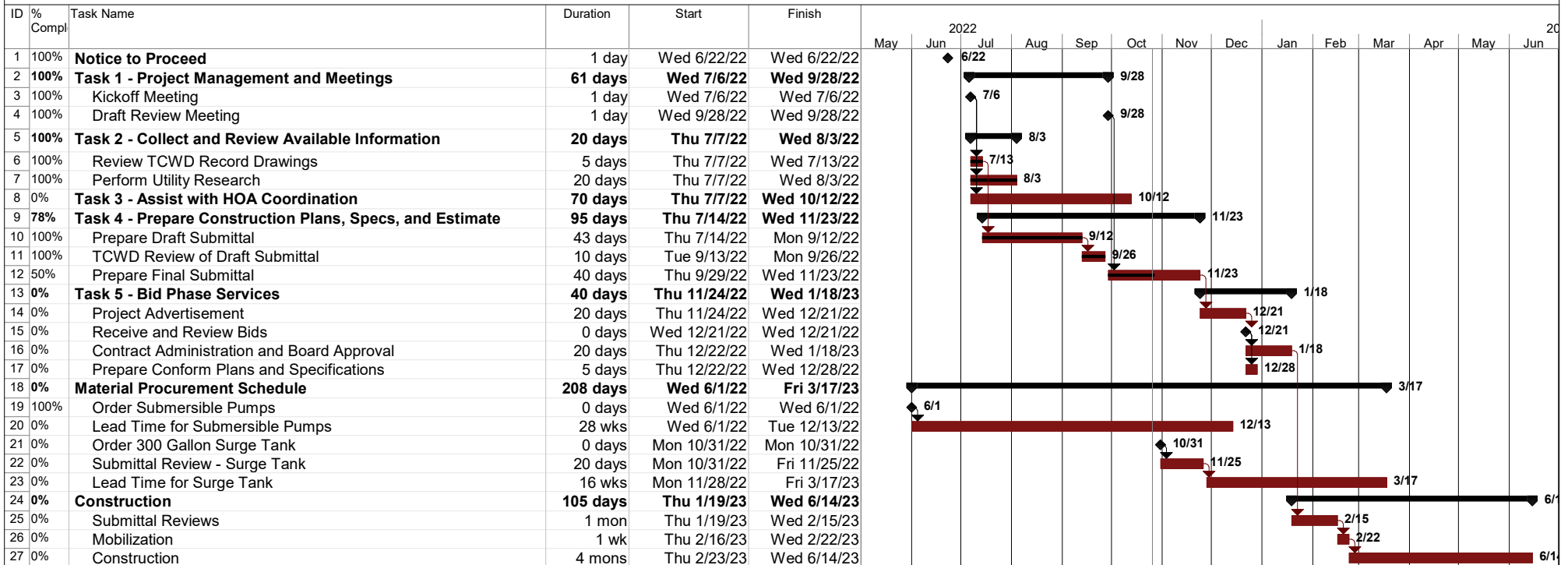
EXHIBIT(S):

1. Project Schedule

CONTACTS (staff responsible): LAUSTEN/ULLOA

TRABUCO CANYON WATER DISTRICT
Engineering Design Services for Golf Club Sewer Lift Station Improvements

PROJECT SCHEDULE
October 26, 2022



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

ENGINEERING MATTERS

ITEM 3: PARTH DEVELOPMENT CONDITIONAL WILL SERVE LETTER

The District has received a request for a Will Serve Letter (WSL) to obtain water service for a proposed single family residence located at 30845 Hamilton Trail, Trabuco Canyon, CA. District staff has conducted the necessary Water Demand Analysis based on the proposed site plan, floor plans, and approved fuel modification plan in order to evaluate the customer's water demands, calculation of capacity charges, and other related fees and charges. The attached WSL contains the respective requirements and conditions for water service to the parcel.

FUNDING SOURCE:

Developer Funded

FISCAL IMPACT (PROJECT BUDGET):

None

ENVIRONMENTAL COMPLIANCE:

Any required environmental compliance and permits are to be met by the property owner.

RECOMMENDED ACTION:

Committee to receive information at the time of the Committee meeting.

EXHIBIT(S):

1. Conditional Will Serve Letter for APN 856-034-02 (Parth Residence).

CONTACTS (staff responsible): LAUSTEN

STAFF MEMBERS

Fernando Paludi, General Manager
Michael Perea, District Secretary
Cindy Byerrum, District Treasurer
Hanson Bridgett, LLP, Legal Counsel



BOARD OF DIRECTORS

Don Chadd, President
Stephen Dopudja, Vice President
Glenn Acosta, Director
Edward Mandich, Director
Michael Safranski, Director

November 2, 2022

Mr. Frank Parth
21901 Palanca
Mission Viejo, CA 92692

**SUBJECT: Will-Serve Letter
Water Service to 30845 Hamilton Trail
Trabuco Canyon, CA
APN: 856-034-02**

Dear Mr. Parth,

The Trabuco Canyon Water District (District) received your request for a Will-Serve Letter to obtain water service for your proposed single-family residence located at 30845 Hamilton Trail, Trabuco Canyon, CA. Based on the submittal of your proposed site plan, floor plans, and approved fuel modification plan, the District conducted a Water Demand Analysis on your behalf. The Water Demand Analysis was used as the basis for evaluation of your water demands, calculation of capacity charges, and preparation of this Will-Serve Letter.

PROJECTED WATER DEMANDS

The total projected water demand was determined to be 2.1 Equivalent Dwelling Units (EDU's). One (1) EDU is equivalent to 495 gallons per day. The property is required that you purchase 2.1 EDU's of water capacity to serve the property's water demand.

TRABUCO CANYON WATER DISTRICT CAPACITY CHARGES

Trabuco Canyon Water District requires all property owners to pay capacity charges as listed below. The Capacity Charges are subject to change by the Board of Directors of the District.

Current District Capacity Charges as of September 16, 2020 are described below:

Description	EDU ^a	Fee per EDU
Capital Improvement Charge	1	\$ 6,415.00
In-Lieu Water Storage Fee	1	\$ 2,050.00
Supplemental Water Capacity Fee	1	\$ 1,485.00

^a EDU – Equivalent Dwelling Unit. Large lots, multifamily dwelling units, commercial sites, and areas requiring fuel modification zones may require additional EDUs, depending on estimated water use.

FEES AND CHARGES

Property APN: 856-034-02

Description	EDU Required	Fee per EDU	Total Fees
Capital Improvement Charges	2.1	\$6,415.00	\$13,471.50
Water Storage Fee	2.1	\$2,050.00	\$4,305.00
Supplemental Water Capacity Fee	2.1	\$1,485.00	\$3,118.50
Total Fee and Charges	2.1	\$9,950.00	\$20,895.00

The District can provide water service to 30845 Hamilton Trail, Trabuco Canyon, CA, subject to all District requirements and Rules and Regulations and subject to payment of all necessary fees, charges and the completion and dedication of necessary facilities. Conditions of service are as described below.

WILL-SERVE LETTER CONDITIONS

- This Will-Serve Letter is limited to the construction of a single-family residence.
- This Will-Serve Letter shall expire in 45 days from the date of this letter unless this Will-Serve Letter is signed and returned to the District. If returned, this Will-Serve Letter shall expire in 365 days from the signature date of signing by the President of the Board of Directors of the District. If not returned, in 45 days it will be necessary to apply for a new Will-Serve Letter.
- The owner recognizes that the elevation of the proposed residence is above the Districts' service elevation and the owner shall install on-site pumps to meet their pressure requirements.
- Water service to the property includes the following conditions:
 - All work shall conform to the District's Standards and Specifications.
 - Installation and maintenance of an approved backflow device, immediately downstream of the meter within the public right of way. Backflow device size shall match the size of the water meter.
 - Provision to the District of the required water meter size, based on the dwelling unit's system design, including fire protection (sprinkler system and irrigated fuel modification zones) system requirements. The plans provided by the Engineer of Record determined that a 1" service is sufficient to serve the property. The 1" service, consisting of a service line from the District's 8-inch mainline, meter, and backflow device will be installed per the District's standard by your "A" or "C-34" licensed and insured Contractor and inspected by the District. The water meter and meter box are available for purchase at the District.
 - Completion and return of the enclosed Application for Water Service.
 - Water service to the property shall exclude service to open space as described in the following document (attached) to be recorded in the County of Orange.

- This Will-Serve Letter includes the additional water demands to meet the approved Orange County Fire Authority fuel modification plan.
- This Will-Serve Letter recognized that the Orange County Fire Authority has approved the use of a water storage tank in lieu of a fire hydrant on the property; therefore, the District is not required to provide extension of the water main or the capacity for the fire hydrant.
- This Will-Serve Letter recognizes that the Orange County Fire Authority approved a private hydrant to be connected to the on-site reservoir and placed at the property line.
- Construction water used for the development of your property will require a separate construction water meter available from the District (see attached applications).
- No sewer service is available to this property. Pursuant to the County of Orange requirement, the septic system and leach field design must be as mandated by the County of Orange.
- All permits by others are the responsibility of the owner.

If you agree to the above conditions, please sign, date and return this letter to the District with a check covering all development charges. Please contact me at (949) 858-0277 if you have any questions.

Sincerely,

TRABUCO CANYON WATER DISTRICT



Lorrie Lausten, P.E.
District Engineer

I agree to be bound by all requirements of this Will-Serve Letter and the Trabuco Canyon Water District Standard Specifications & Standard Plans and Rules & Regulations. I certify that this application is being made for domestic service and shall not be used for commercial purposes.

APN: 856-034-02

Applicant's Signature

Date

Print Name

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

ENGINEERING MATTERS

ITEM 4: DOVE DAM OUTLET REPAIR ALTERNATIVES EVALUATION

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 a Meyers 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 August 2022, the 6" PVC air vent pipe, which is connected to the 30" diameter discharge drainpipe, failed, allowing lake water to fill the discharge pipe and slowly drain the lake. Staff contracted Meyers to make a temporary repair to the pipe but is concerned that the air vent pipe is significantly vulnerable to further damage. Staff recommends an evaluation of the repair options for the Dove Dam drain facilities, including air vent pipe, sluice gate, sluice gate structure, gate stem and supports.

At this time, District Staff recommends adding the Dove Dam Repair Alternative Evaluation to the contract performed by Hazen & Sawyer due to the recent emergency repairs and Hazen's completion of the condition assessment of the facility.

FUNDING SOURCE:

General Fund

FISCAL IMPACT (PROJECT BUDGET):

\$633,300 Approved

\$677,828 Revised

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption

RECOMMENDED ACTION:

Recommend 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).

EXHIBIT(S):

1. Amendment No. 2-Dove Dam Repair Alternatives Evaluation and Cost Estimate

CONTACTS (staff responsible): LAUSTEN

**TRABUCO CANYON WATER DISTRICT
PROFESSIONAL SERVICES CONTRACT
CHANGE IN SCOPE OF WORK**

AMENDMENT No. 2

Date: November 17, 2022

Project Title: 2021 Systemwide Master Plan Update and Condition Assessment

Project No.: 2022-012

Consultant: Hazen

Change in Scope of Services:

The following change to the professional services contract dated October 29, 2021 is proposed:

Consultant shall provide additional engineering support services, to provide an alternative evaluation to identify and vet options for the replacement of the vent pipe, sluice gate and sluice gate stem assembly at Dove Dam. Detailed scope of work shall be coordinated with TCWD and be performed on time and materials and based on the attached proposal and fee schedule.

Attachment(s):

Hazen's "Master Plan and Condition Assessment Study-Proposal for Dove Dam Repair Alternatives Evaluation and Cost Estimate"

Payment Terms:

In accordance with the attached proposal and fee schedule effective through December 31, 2022

Schedule Impact: None

Summary

Contract Amendment Amount	= \$ 44,528
Total of Previous Change Orders	= \$ 66,780
<u>Original Contract Amount</u>	<u>= \$566,520</u>
New Contract Amount	= \$677,828

CHANGE ORDER REQUESTED BY:

- Trabuco Canyon Water District
 Contractor
 Other: _____

Approved By: _____ Approved By: _____

Title: District Engineer

Title: General Manager

October 7, 2022

Lorrie Lausten, P.E.
District Engineer
Trabuco Canyon Water District

Re: Master Plan and Condition Assessment Study – Proposal for Dove Dam Repair Alternatives Evaluation and Cost Estimate

Dear Lorrie:

Thank you for the opportunity to add to our current contract of the Master Plan and Condition Assessment Study to assist TCWD with the evaluation of repair options for the Dove Dam dewatering vent pipe and slide gate. Based on our review of project documents, the following is our understanding of the issue:

- The spillway system includes a 51-inch diameter vertical drop inlet which transitions to a 51-inch buried RCP pipe with two slope changes.
- A 30-inch diameter RCP low level drain pipe discharges to the 51-inch diameter spillway pipe at the junction of the second slope change.
- Discharge through the 30-inch drain pipe is controlled by a 30" Waterman sluice gate mounted on an reinforced concrete intake structure. The valve is operated by a 3-inch diameter gate stem with a gear box and nut that can be operated with a removable wheel or portable actuator. The sluice gate is reported to be inoperable at this time. The existing stem is severely corroded and the stem supports have failed due to corrosion.
- A 6-inch diameter Schedule 40 PVC vent pipe is connected to the top of the 30-inch drain pipe just downstream of the intake structure. The vent pipe has functionally failed and temporary repairs have been made.

TCWD would like to conduct an alternatives evaluation to identify and vet options for replacement of the vent pipe, sluice gate, and sluice gate stem assembly, that addresses potential failure modes and provides a more resilient and maintainable system.

The scope of work includes the necessary tasks to conduct the investigation and document recommendations in a technical memorandum (tech memo). The Final Tech Memo will be written with sufficient detail to allow TCWD to proceed directly into final design with the next phase of this project. The tasks associated with this scope of work include:

1. Data Collection and Review – The project team will facilitate a kickoff meeting with TCWD staff to confirm mutual understanding of the project objectives, work plan, communication protocols, and deliverables. The team will review drawings, design documents, and operation, maintenance and inspection documents associated with the spillway and low level drain system. Such documents are to be provided by TCWD. A list of dam safety regulatory compliance requirements and a summary of design criteria will be developed.

2. Workshop – The design team will facilitate an alternatives evaluation workshop to develop a matrix of vent and gate repair options with pros, cons, and project risk. Based on our experience, we anticipate that certain sluice gate components will need to be repaired or replaced due to corrosion of the gate, stem, seal plate, and/or anchor bolts. A non-conflicted construction contractor may be engaged as a subconsultant advisor to further inform constructability, materials, and cost considerations. Options for making repairs without completely draining the reservoir will be prioritized.
3. Schematic Design of Alternatives – The project team will select up to three alternatives to carry forward for schematic design and development of opinion of construction cost. A schematic drawing of each alternative will be prepared for exhibit purposes and to inform the schematic level opinion of construction cost.
4. Draft Technical Memo - Prepare technical memo describing the options considered, alternatives carried forward, opinions of construction cost, and project team recommendations for decision support. A list of contractors who are experienced in this type of work will also be provided. The graphics will include schematic alternative exhibits. A cost estimate will be included with line-by-line costs for each alternative. After TCWD review of the draft submittal, the project team will meet with TCWD staff to answer questions or provide verbal clarification.
5. Final Tech Memo – Address comments from TCWD on the Draft Technical Memo and finalize.

The key members of the project team include:

- Project Manager – Tori Yokoyama
- Dam Safety Engineer – Scott Arends
- Dam Safety Senior Engineer – Jeff Powers
- Geotechnical/Constructability Engineer – Craig Robinson
- Hydraulic Structures Engineer – Lisa Giroux

The total fee associated with this project is shown on the attached table. The work would be billed T&M up to the not-to-exceed amount shown in the table.

Respectfully,



Tori Yokoyama, PE
Senior Associate



Fee Proposal
Trabuco Canyon Water District
Dove Dam Alternatives Evaluation and Cost Estimate
October 6, 2022

Hazen and Sawyer												
Task No.	Description	Project Manager \$250	Dam Safety Engineer \$280	Dam Safety Senior Engineer \$300	Geotechnical Dam Engineer \$280	Hydraulic Structures Engineer \$280	Dam Cost Estimating \$206	Dam CAD Designer \$206	Assistant Engineer \$145	Subtotal Hours	Direct Costs LS	Total
Task	Estimate	14	28	12	30	14	8	40	44	190	\$ 1,000	\$ 44,528
1	<i>Data Collection and Review</i>	2	8	2	8	2			4	26		\$ 6,720
2	<i>Alternatives Analysis Workshop</i>	2	8	4	8	8			6	36	\$ 1,000	\$ 10,290
3	<i>Schematic Design of Alternatives</i>	2	4	2	4		8	40		60		\$ 13,228
4	<i>Draft Technical Memo</i>	4	6	2	6	4			32	54		\$ 10,720
5	<i>Final Technical Memo</i>	4	2	2	4				2	14		\$ 3,570
											\$ 1,000	\$ 44,528
	<i>Person-Hours Subtotal</i>	14	28	12	30	14	8	40	44	190		
											TOTAL	\$44,528

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

ENGINEERING MATTERS

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

Trabuco Canyon Water District (District) owns, operates, and maintains the Dimension Water Treatment Plant (WTP) in the City of Lake Forest. Water Operations Staff has been working out of a 12'x30' office trailer since approximately 2006. The office is in poor condition, is not ADA compliant, and is too small to accommodate five operators, a bathroom and kitchen area. Staff worked with JIG Consultants to design a new office and relocate it on-site. The new office is a 12'x60' modular building and includes a supervisor office, two cubicles, a kitchen area and an improved bathroom which includes a shower and locker facilities. On October 12, 2022, Staff received one bid for the project in the amount of \$614,820. Staff recommends rejecting all bids and is revising the bid documents to reduce the on-site utility costs.

FUNDING SOURCE:

General Fund

FISCAL IMPACT (Including Engineering, Inspection and Testing):

FY21/22 - \$50,000

FY22/23 - \$300,000

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption was filed with the County of Orange on February 24, 2022

RECOMMENDED ACTION:

Committee to receive information at the time of the Committee Meeting.

EXHIBIT(S):

1. Bid Evaluation

CONTACTS (staff responsible): LAUSTEN/KESSLER

BID COMPARISON
DIMENSION WATER TREATMENT PLANT OFFICE TRAILER PROJECT
Bid Opening Date: October 12, 2022 @ 2:00 p.m.

Ferreira Construction	
Bree Scott	
Bscott@ferreiraconstruction.com	
15188 Vista Del Rio Ave.	
Chino, CA 91710	
(909) 606-5900	
License #	755356

Item	Description	Quantity	Unit	Engineer's Unit Price	Engineer's Total Cost	Unit Cost	Total Cost
1	Mobilization / Demobilization (NTE 5% of Total Bid)	1	LS	\$14,000.00	\$14,000.00	\$30,000.00	\$30,000.00
2	Structural, Mechanical, and Electrical Demolition	1	LS	\$16,000.00	\$16,000.00	\$30,000.00	\$30,000.00
3	Furnish and Construct Pre-Packaged Double Wide Trailer	1	LS	\$200,000.00	\$200,000.00	\$220,000.00	\$220,000.00
4	Extend Water Service and Connect to Trailer Water System Stub	1	LS	\$5,000.00	\$5,000.00	\$32,000.00	\$32,000.00
5	Extend Sewer Service and Connct to Trailer Sewer System	1	LS	\$10,000.00	\$10,000.00	\$43,000.00	\$43,000.00
6	Construct Miscellaneous Electrical and Communications Improvements	1	LS	\$50,000.00	\$50,000.00	\$212,000.00	\$212,000.00
7	All Other Work	1	LS	\$5,000.00	\$5,000.00	\$37,820.00	\$37,820.00
8	Allowance for Trailer Interior Furnishings and Upgrades	1	ALLOWANCE	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
TOTAL:					\$310,000.00		\$614,820.00

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

ENGINEERING MATTERS

ITEM 6: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

1. Arc Flash Incident Energy Analysis RFP
2. Master Plan and Condition Assessment Update
3. Trabuco Creek Bridge Replacement Update
4. DISH Wireless Cellular Site at Dove Reservoir
5. Other Projects

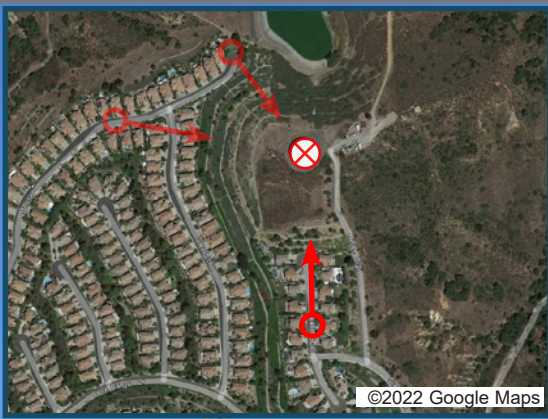
RECOMMENDED ACTION:

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

EXHIBIT(S):

1. DISH Wireless Photo Renderings

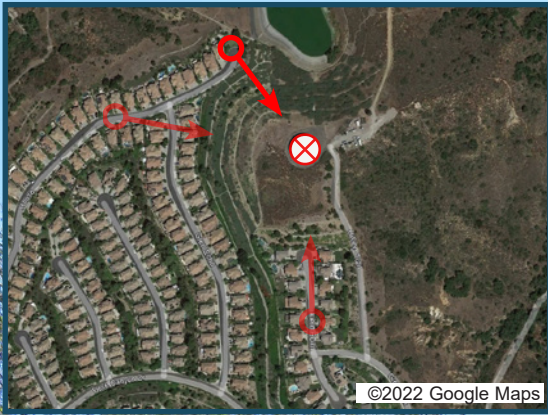
CONTACTS (staff responsible): PALUDI/PEREA/LAUSTEN



EXISTING



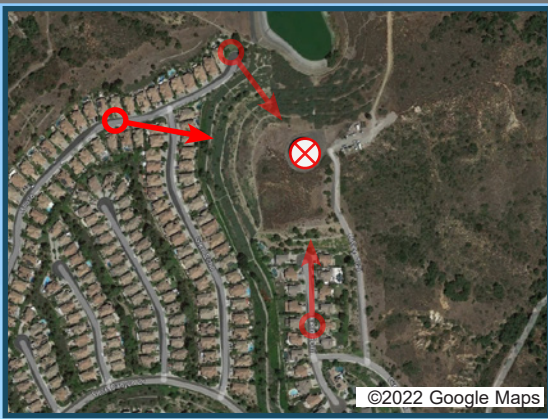
PROPOSED LOOKING NORTH FROM FIELD POINT



EXISTING



PROPOSED LOOKING SOUTHEAST FROM HILLRISE



EXISTING



PROPOSED

LOOKING EAST FROM HILLRISE

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

OPERATIONAL MATTERS

ITEM 7: WATER SYSTEM UPDATES

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

Projects and Repairs

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

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.

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				23.2
Flushwater, AF	6.0	7.0	2.0	0.0	0.0	0.5	6.0	9.0	9.0				39.5
DWTP Effluent (1)	141.0	151.0	47.0	0.0	0.0	0.0	214.0	262.0	229.0				1,044.0
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
U.S. Well AF	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
Water Purchases, AF													
SMWD Treated Interconnection	0.0	0.0	27.0	57.0	75.0	54.0	3.0	0.0	13.0				229.0
IRWD Treated Interconnections	3.0	0.0	80.0	117.0	123.0	115.0	20.0	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
Total Purchases (3)	3.0	0.0	107.0	174.0	198.0	169.0	23.0	0.0	13.0				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				1,731.0
% Year - Peak Prod. - 2,449 AF (2018)	6%	12%	18%	25%	34%	40%	50%	61%	71%				-
AF/Day	4.6	5.4	5.0	5.8	6.4	5.6	7.6	8.5	8.1				6.3
CFS/Day, Avg.	2.3	2.7	2.6	2.9	3.2	2.7	3.8	3.6	3.8				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
Monthly Average, AF	27.0	27.6	27.3	27.0	27.6	27.3	26.7	27.0	27.6				27.2
Days of Storage	3.0	4.0	4.0	3.0	4.0	4.0	3.0	3.0	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				0.93
Robinson Ranch WWTP	0.002	0.002	0.004	0.005	0.005	0.005	0.005	0.009	0.005				0.04
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
Subtotal	0.1	0.1	0.0	0.0	0.0	0.0	0.3	0.2	0.2				1.0
System Losses, AF (2)													
Flushing	0.00	0.00	0.52	0.00	0.00	0.00	0.63	0.66	0.27				2.1
Sewer Cleaning	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02				0.1
Line Breaks	0.31	0.15	0.00	0.92	0.08	0.00	0.00	0.23	0.05				1.7
Subtotal	0.32	0.17	0.54	0.94	0.09	0.02	0.64	0.91	0.33				3.95
Zone Demands, AF (3)													
Topanga Canyon	2.0	2.0	2.0	2.0	2.6	3.0	3.0	3.0	3.0				22.6
Falcon Estates	0.4	0.5	0.6	0.7	0.9	0.8	0.8	0.9	0.9				6.5
Rose PRV/The Oaks	3.0	2.0	4.0	3.0	4.0	3.0	3.0	3.0	3.0				28.0
Canyon Creek	0.2	0.5	0.3	0.3	0.3	0.4	0.5	0.5	0.4				3.4
Rose Pump Station	0.4	0.2	0.2	0.1	0.1	0.0	0.2	0.1	0.1				1.4
Robinson Ranch	32.0	39.0	42.0	43.0	43.0	59.0	80.0	84.0	66.0				488.0
Dove Canyon	59.0	62.0	70.0	70.0	81.0	85.0	90.0	88.0	84.0				689.0
Subtotal	97.0	106.2	119.1	119.1	131.9	151.2	177.5	179.5	157.4				1,238.9
Total System Demand (1,2,3)	97.4	106.5	119.7	120.0	132.0	151.3	178.4	180.6	157.9				1,243.9

**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				6.1
Daily Average, CFS	2.3	2.6	2.6	2.9	3.2	2.8	3.8	3.7	3.9				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				976.0
El Toro (Interconnection Purchase)	3.0	0.0	80.0	117.0	123.0	115.0	20.0	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				107.0
Skyridge (Wholesale Purchase)	1.7	1.6	2.2	1.9	2.2	2.4	2.3	2.7					17.0
* Usage estimated	** Excludes Operational use, losses, and supplement to Recycled Water Reservoir (RW)												

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

OPERATIONAL MATTERS

ITEM 8: WASTEWATER SYSTEM UPDATES

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

Projects and Repairs

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

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).

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	8000
Total Sewer Line Cleaned (Ft) – Cleaning Cycle	13,000
Cleaning Cycle Period (Mos.) [Start date: 9/1/22]	2
Total Sewer Line Cleaned, %	6%
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	42.3	44.6	44.1	42.6	44.6	44.1	42.3				397.1	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				-	-
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				-	-
Reclaimed Reservoir Storage, AF	145.5	138.6	140.5	122.8	108.9	84.8	73.2	75.0	73.2	65.9				-	-
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	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				1.7	21.1%
Dove Canyon Golf Course	106.7	5.8	13.3	21.1	26.3	34.9	52.9	48.7	54.4	41.0				298.5	279.8%
Dove Canyon Master Association	279.3	13.0	5.0	14.0	21.7	28.0	24.8	28.7	24.3	23.9				183.3	65.6%
Robinson Ranch	80.2	0.8	1.0	1.2	1.7	2.4	5.0	3.3	3.7	3.0				21.9	27.3%
Trabuco Highlands	159.7	1.2	2.3	5.0	6.9	9.8	10.3	10.2	7.5	7.8				61.0	38.2%
City of RSM	0.1	0.01	0.0	0.00	0.00	0.00	0.00	0.02	0.07	0.02				0.11	84.6%
Construction Water	N/A	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%
SMWD	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	7.7				12.0	N/A
TY Nursery	17.9	0.0	0.0	20.8	0.1	0.0	0.0	0.0	0.0	0.0				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				599.4	91.8%
PERCENTAGE OF NDW ALLOCATION/YEAR		3.2%	6.6%	16.1%	24.8%	36.3%	50.5%	64.5%	79.0%	91.8%					
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				0.10	14.2
Dove Tick Creek Production*	Dry Season	7.4	7.1	1.1	4.6	2.4	2.7	2.2	11.1	1.9				40.5	58.8
	TCWD Portion	7.4	7.1	1.1	2.3	1.2	1.4	1.1	5.6	0.9				28.0	-
	SMWD Portion	0.0	0.0	0.0	2.3	1.2	1.4	1.1	5.6	0.9				12.5	-
Dove Lake Water Pumped		0.0	0.0	0.0	0.0	0.0	40.2	62.7	49.4	30.8				183.1	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				-	-
Dove Lake Storage, AF		161.0	165.0	176.3	177.3	177.3	176.0	95.0	54.0	46.3				-	-
Total Rainfall, In.		0.0	0.5	1.5	0.01	0.0	0.0	0.0	0.0	0.0				2.0	14.7

* SMWD share of Dove/Tick Pump Station Dry Season Water is 50% of production.

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

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

OPERATIONAL MATTERS

ITEM 9: MAINTENANCE DEPARTMENT UPDATES

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

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.

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
ENGINEERING/OPERATIONAL COMMITTEE MEETING | NOVEMBER 2, 2022**

**REGULATORY AND OTHER MATTERS
ITEM 10: 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