



ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA
TRABUCO CANYON WATER DISTRICT
32003 DOVE CANYON DRIVE, TRABUCO CANYON, CA
ADMINISTRATION FACILITY, BOARDROOM
MAY 5, 2021 AT 7:00 AM

COMMITTEE MEMBERS

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

DISTRICT STAFF

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

AGENDA NOTE:

*Due to the spread of COVID-19 and as authorized by the Governor's Executive Order, Trabuco Canyon Water District will be holding this Engineering/Operational Committee Meeting by video broadcast (**Zoom**), and will be available by either video conference or telephone audio as follows:*

Video Conferencing: You can join the meeting from your computer, tablet, or smartphone by clicking on the following link: <https://zoom.us/j/97375627682>

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 Board 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 Board regarding a particular item on the agenda are requested to submit public comments by email to the Board 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 Board 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

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA | MAY 5, 2021**

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

ADMINISTRATIVE MATTERS

**PRESENTER(S): FERNANDO PALUDI, GENERAL MANAGER
MICHAEL PEREA, DISTRICT SECRETARY**

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. April 7, 2021
2. April 19, 2021

ENGINEERING MATTERS

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

ITEM 2: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING BELL CANYON SEWER LIFT STATION REHABILITATION PROJECT

RECOMMENDED ACTION:

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

ITEM 3: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

1. 2020 Urban Water Management Plan and Water Shortage Contingency Plan Update
2. Saddle Crest Development
3. 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
MICHAEL PEREA, ASSISTANT GENERAL MANAGER
JASON STROUD, MAINTENANCE DEPARTMENT SUPERINTENDENT**



**TRABUCO CANYON WATER DISTRICT
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ITEM 4: WATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

ITEM 5: WASTEWATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

ITEM 6: MAINTENANCE DEPARTMENT UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

REGULATORY AND OTHER MATTERS

ITEM 7: 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.

The District may conduct future meetings electronically (via teleconferencing) during the current ongoing emergency situation.



**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MAY 5, 2021**

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. *April 7, 2021*
2. *April 19, 2021*

CONTACTS (staff responsible): PALUDI/PEREA



TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | APRIL 7, 2021

DIRECTORS PRESENT

Ed Mandich, Committee Chair
Stephen Dopudja, Committee Member

STAFF PRESENT

Fernando Paludi, General Manager
Gary Kessler, Water Department Superintendent
Jason Stroud, Maintenance Superintendent
Lisa Marie Sangi, Executive Assistant

STAFF PRESENT VIA CONFERENCE CALL

Lorrie Lausten, District Engineer

DISTRICT CONSULTANTS PRESENT VIA CONFERENCE CALL

Mike Swan, PSOMAS Engineering

PUBLIC PRESENT VIA CONFERENCE CALL

None

CALL MEETING TO ORDER

Director Mandich called the April 7, 2021 Engineering/Operational Committee Meeting to order at 7:05 AM. Public access to the meeting was made available by video broadcast.

VISITOR PARTICIPATION

No comments were received.

ORAL COMMUNICATION

No comments were received.

COMMITTEE MEMBER COMMENTS

No comments were received

REPORT FROM THE GENERAL MANAGER

No comments were received

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).

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | APRIL 7, 2021**

ITEM 2: DISCUSSION AND POSSIBLE ACTION(S) RELATING TO TCWD'S DOMESTIC WATER STORAGE AND RESERVOIR SITING STUDY UPDATE

Ms. Lausten provided a project status update for Committee review, and she presented an updated Domestic Water Storage & Reservoir Siting Study (Study) which incorporated Committee input from the prior meeting. Mr. Swan briefly reviewed additional non-substantive changes in the study from the prior version. Mr. Paludi commented that District staff recommends reviewing the methodology of the District's development fees and charges, and he added that additional review of the District's future systemwide domestic water storage capacity. Discussion occurred concerning the proposed tank options in the study. Ms. Lausten recommended improvements to the District existing Harris Grade site in order to balance the District's storage/demand deficiencies. Mr. Kessler concurred with Ms. Lausten regarding the Harris Grade site. Discussion occurred briefly concerning additional reservoir siting locations within the District service area, and the Committee provided additional feedback to staff concerning certain portions of the study.

RECOMMENDED ACTION:

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

Director Mandich recommended moving forward Item 5 Saddleback Meadows. Director Mandich recused himself from meeting business and exited the Board Room at approximately 7:26 a.m.

ITEM 5: SADDLEBACK MEADOWS DEVELOPMENT (181 DUS)

Mr. Paludi presented this matter for Committee consideration. Mr. Swan provided a brief review on the updated DRAFT Sub Area Master Plan (SAMP) for the development, and he highlighted the changes from the previous version. Discussion occurred concerning certain portions of the SAMP, including domestic water storage options. The Committee recommended scheduling an Engineering/Operational Committee Special Meeting, and for District staff to provide the DRAFT SAMP to the developer for their review.

RECOMMENDED ACTION:

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

Director Mandich returned to the Board Room at approximately 7:41 a.m. and resumed his participation on the remaining meeting business.

ITEM 3: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING BELL CANYON SEWER LIFT STATION REHABILITATION PROJECT

Ms. Lausten provided a project status to the Committee, and she provided an overview of the project construction report with the Committee. Discussion occurred concerning odor control measures during construction; Mr. Paludi reported that Wastewater Operations worked with the contractor to mitigate the odors. Ms. Lausten briefly reviewed the project changes to the contract due Dove Canyon Master Association (DCMA) street paving schedule.

RECOMMENDED ACTION:

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

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | APRIL 7, 2021**

ITEM 4: DISCUSSION CONCERNING GOLF CLUB SEWER LIFT STATION REPAIRS & IMPROVEMENTS

Mr. Paludi introduced this matter to the Committee. Mr. Stroud provided a brief project update on the improvements to the facility, and he reviewed the project photos with the Committee. Discussion occurred concerning other planned improvements to the facility, including the replacement of previous repairs, pump improvements, and site security improvements.

RECOMMENDED ACTION:

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

ITEM 6: OTHER ENGINEERING AND OPERATIONS PROJECTS

1. Proposed Capital Improvement Program Budget for Fiscal Year 2021-2022

Mr. Paludi introduced this matter for Committee review. Ms. Lausten reviewed the current and completed fiscal year capital improvement projects. Discussion occurred concerning certain proposed capital projects, including grant funded projects, improvements at the Dimension Water Treatment Plant (DWTP), and Dove Lake access road improvements. Ms. Lausten reported that more information would be presented the Special Board Meeting – Budget Workshop.

2. Joplin Property/SCADA Upgrade

Mr. Paludi provided an update on this matter, and he reported that District has fully executed the license agreement with Orange County Public Works for the District’s SCADA System improvements. Ms. Lausten briefly reviewed options for provided a temporary solution, transfer of right of way, cellular fail over.

3. 2020 Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP) Update

Mr. Paludi introduced this matter for Committee consideration, and he provided a brief overview of the significant changes from the 2015 UWMP, including the required preparation and adoption of a Water Shortage Contingency Plan consistent with Department of Water Resources regulatory requirements. Discussion occurred concerning the District’s domestic water system modeling and the overall impacts of drought conditions.

4. Master Plan and Condition Assessment RFP

Mr. Paludi introduced this matter for Committee review, and he reported that District staff has prepared a Request for Proposals (RFP) for an independent consultant to prepare a District Master Plan Update and Condition Assessment. Discussion occurred concerning the proposed scope of work and level of staff involvement in relation to critical system issues. Mr. Paludi added that District staff is currently working with MKN Associates to identify a potential Computerized Management Maintenance Solution (CMMS) system replacement that better suits the District’s needs.

5. Saddle Crest Development

Mr. Paludi provided a brief update to the Committee, and he mentioned that District staff has provided the items to the developer consistent with Board direction at the prior Regular Board Meeting.

6. Other Projects

Mr. Paludi provided a brief update on the Administrative Facility improvements, including the roof repair and office upgrade.

RECOMMENDED ACTION

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

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | APRIL 7, 2021**

ITEM 7: WATER SYSTEM UPDATES

Mr. Kessler reviewed the projects and repairs for March 2021, and he provided the additional highlights:

1. Water Operations staff replaced water service on Wood Spring Circle in the Portola Hills community.
2. Water Operations staff worked with Ferreira Construction to repair a 14" valve on Ridgeline Rd in the Canyon community.
3. Water Operations staff repaired a struck a Blow Off on the El toro bike trail.
4. Water Operations staff replaced 5 air vacs throughout the District.
5. Water Operations staff replaced a commercial fire hydrant behind Smart & Final.
6. Water Operations staff replaced a curb stop on Mill Stream Road in the Trabuco Highlands community.

Mr. Kessler reviewed the Monthly Water System Operations Summary with the Committee, and he reported on emergency domestic line break repair on the El Toro Bike Trail which resulted in significant water loss due to damage by County of Orange workers. Director Dopudja requested that future reports include valve exercise progress updates.

RECOMMENDED ACTION

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

ITEM 8: WASTEWATER SYSTEM UPDATES

Mr. Stroud reviewed the projects and repairs for March 2021, and he provided the additional highlights:

1. Wastewater Operations staff responded to flooding at Tick Creek Pump Station due to rain event impacts which resulted in an overflow. Staff remediated the standing water and adjusted the overflow structure.
2. Wastewater Operations staff worked with Ferreira Construction and Koppl Pipeline Services for installation of one in-line isolation valve on the discharge force main at Golf Club Sewer Lift Station.
3. Wastewater Operations staff cleaned the v-ditch below Dove Canyon Recycled Water Pump Station.
4. Wastewater Operations staff performed the annual exercise of the Recycled Water Reservoir discharge valve.
5. Wastewater Operations staff performed routine preventative maintenance on the Belt Press Filter Pump and replace the pump impeller.
6. Wastewater Operations staff worked with Maintenance staff to replace the sludge line to the Belt Press Filter and flow meter.
7. The Wastewater Operations Department welcomes new Operator in Training Mr. Garret Rias.

Mr. Stroud reviewed the Monthly Wastewater System Operations Summary with the Committee, and he reported that the District is currently selling non-domestic water to Santa Margarita Water District (SMWD) consistent with existing contractual arrangement. Director Dopudja requested that future reports include valve exercise progress updates. Director Dopudja requested that future reports include additional information concerning total number of feet of sewer line cleaned.

RECOMMENDED ACTION

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

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | APRIL 7, 2021**

ITEM 9: MAINTENANCE DEPARTMENT UPDATES

Mr. Stroud reviewed the projects and repairs for March 2021, and he provided the additional highlights:

1. Maintenance Department staff Installed a new chemical feed pump at the Dimension Water Treatment Plant.
2. Maintenance Department staff worked with Ferreira construction and Koppel Construction to wet tap a new isolation valve at the Golf Club Lift Station force main.
3. Maintenance Department staff worked with Sanitation Operations at the Golf Club Lift Station dry pit to install a new isolation valve and check valve flappers (night job).
4. Maintenance Department staff (2) along with staff from Water Operations (2) and Wastewater Operations (2) trained, tested, and passed the NCCCO crane certification program.
5. Maintenance Department staff assisted with an emergency repair at the Golf Club Lift Station emergency generator. Along with assisting Duthie Power on the install of a new water pump, belts, and coolant.
6. Maintenance Department staff assisted Flo-Services on the continuing work at El Toro Sewer Lift Station north side sewer pumps.

There was a brief discussion on the flow to El Toro Sewer Lift Station, contribution to that facility.

RECOMMENDED ACTION

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

ITEM 10: OTHER MATTERS/REPORTS

None

RECOMMENDED ACTION

There was no action taken.

ADJOURNMENT

Director Mandich adjourned the April 7, 2021 Engineering/Operational Committee Meeting at 9:05AM.



TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | APRIL 19, 2021

DIRECTORS PRESENT

Stephen Dopudja, Committee Chair
Michael Safranski, Committee Member

STAFF PRESENT

Fernando Paludi, General Manager
Michael Perea, Assistant General Manager
Lorrie Lausten, District Engineer

PUBLIC PRESENT VIA CONFERNECE CALL

There were members of the public on the conference call.

CALL MEETING TO ORDER

Director Dopudja called the April 19, 2021 Engineering/Operational Committee Meeting to order at 4:00 p.m. Public access to the meeting was made available by video broadcast.

VISITOR PARTICIPATION

No comments were received.

ORAL COMMUNICATION

No comments were received.

COMMITTEE MEMBER COMMENTS

No comments were received

REPORT FROM THE GENERAL MANAGER

No comments were received

ITEM 1: DISCUSSION AND POSSIBLE ACTION(S) RELATING TO TCWD'S DOMESTIC WATER STORAGE AND RESERVOIR SITING STUDY UPDATE

Mr. Paludi presented this matter for Committee consideration, and he provided a brief project status update for Committee review. Ms. Lausten presented and reviewed a District/Saddleback Meadows (developer) Joint Storage Cost Analysis handout which highlighted proposed planning level construction cost estimates for three storage options, including (1) Porter Property, (2) Harris Grade 1.70 million-gallon (MG) steel tank, and (3) Harris Grade 2.70 MG concrete tank based on the Harris Grade Siting Study and Porter Property Planning Level Cost Estimate Report as prepared by Tetra Tech. Mr. Paludi reviewed the proposed joint storage contribution methodology for Committee review and consideration. Discussion occurred concerning potential project constraints and challenges of all three options. The Committee commended District staff on the proposed methodology and cost analysis.

Director Safranski recommended District staff review the current Harris Grade reservoir site lease agreement.

Director Dopudja recommended District finalize the fire flow demands for the development and review the proposal with the developer prior to Board consideration.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL SPECIAL COMMITTEE MEETING RECAP | APRIL 19, 2021**

RECOMMENDED ACTION:

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

ADJOURNMENT

Director Dopudja adjourned the April 19, 2021 Engineering/Operational Committee Meeting at 4:40 p.m.

DRAFT

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MAY 5, 2021**

ENGINEERING MATTERS

ITEM 2: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING BELL CANYON SEWER LIFT STATION REHABILITATION PROJECT

Trabuco Canyon Water District (District) owns and operates the Bell Canyon Lift Station (Station) in the Dove Canyon community. The station was built in the late 1980's as part of the Dove Canyon Development and is located at the end of Bell Canyon Drive. The station lifts sewage from 130 homes via a 4" PVC force main, 4500 LF to a manhole at the intersection of Willowglade and Golf Ridge Dr., which then gravity flows to Golf Club Lift Station.

The station footprint is 30'x15' and includes a wet well with two sets of submersible pumps working in series, a dry pit/valve vault, electrical/MCC panel, a chlorine tank and a backup diesel generator. On September 2, 2019, a complete failure of the station occurred and required Wastewater Operations and Maintenance Staff to install an emergency bypass system to prevent a Sanitary Sewer Overflow (SSO). Two days later, operations were able to restore service to one set of pumps, removed the bypass system and installed a temporary pumping system to back up the operational pumps.

District staff, along with JIG Consultants, identified areas that required rehabilitation and replacement, and completed a bid package for this work in April 2020. At the May 20, 2020 Regular Board Meeting, the Board of Directors authorized the General Manager to execute a contract with Ferreira Construction for the Bell Canyon Lift Station Rehabilitation in the amount of \$1,496,228, with a \$75,000 contingency, for a not to exceed amount of \$1,571,228. At the June 15, 2020 Regular Board Meeting, the Board of Directors authorized the General Manager to execute a contract with Butier Engineering, Inc. for Construction Management Services in the amount of \$180,830.

The construction completion date is July 5, 2021. The following is the budget for the project:

BELL CANYON LIFT STATION REHABILITATION PROJECT COSTS-UPDATED		
ITEM	TASK DESCRIPTION	BUDGET
1	Construction – Ferreira Construction (Includes \$75,000 Allowance for Field Orders and \$75,000 Approved Contingency)	\$1,571,228
	<ul style="list-style-type: none"> • Fence Revision • Wet Well Replacement • By-Pass Valve on Surge Tank • Odor Control During Construction 	\$12,468.00 \$52,952.93 \$5,369.67 \$11,341.97
	<i>Total:</i>	<i>\$82,132.57</i>
2	Geotechnical Site Investigation, Vibration Monitoring, Video Survey, Additional Boring - GMU Geotechnical	*\$17,300.00
3	Engineering Design/Services During Construction – JIG Consultants	\$117,625.00
4	Construction Management/Inspection-Butier	\$180,830.00
5	Design Site Survey/Construction Monitoring – DMc Engineering	*\$8,280.00
6	Easement Procurement - DMc Engineering/CPSI Right-of-Way Services	*\$4,000.00
7	Service/Meter Plan/Arc Flash Study - SCE	*\$3,000.00
	Total:	\$1,902,263.00

FUNDING SOURCE:

Emergency Reserves

FISCAL IMPACT:

\$1,903,000.00 (FY19-20 & FY20-21)

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MAY 5, 2021**

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption was filed with the County of Orange on June 16, 2020

RECOMMENDED ACTION:

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

EXHIBIT(S):

1. Construction Report- April 2021

CONTACTS (staff responsible): PALUDI/LAUSTEN

Bell Canyon Lift Station Rehabilitation Project TCWD Project No. 1920-022

Construction Report
April 2021



I. GENERAL PROJECT INFORMATION

<i>Contract</i>	Bell Canyon Lift Station Rehabilitation Project
<i>Contractor</i>	FERREIRA Construction
<i>Contract Time</i>	
Original Calendar Days:	180 Calendar Days from Notice to Proceed
Notice of Award:	June 15, 2019
Notice to Proceed:	June 29, 2020
Original Contract Completion Date:	December 26, 2020
Allowed Calendar Days via Change Orders:	<i>187 Days (Pending)</i>
Revised Completion Date via Change Orders:	<i>July 5, 2021 (Pending)</i>
Weather-Related Delay Days:	5 Days
 <i>Contract Price</i>	
Original Contract Amount:	\$1,496,228.00
Approved Change Order Amount:	\$0.00
Revised Contract Amount:	\$1,496,228.00

II. CONSTRUCTION MANAGER SUMMARY

This report provides a summary of activities for the month of April 2021 for the Bell Canyon Lift Station Project.

Within April 2021, FERREIRA Construction (FERREIRA) continued and completed efforts to install the Retaining and Block Walls. This included placement of waterproofing coating on all Wall improvements, and extended a subdrainage system below and behind the Retaining Wall portion. This subdrainage system daylighted or penetrated through the existing Block Wall which will allow any drainage flow into the existing cul-de-sac's curb-and-gutter system.

FERREIRA started and completed the removal and demolition of the existing Wet Well. This was performed to accommodate the new, circular Wet Well. Excavation to the bottom of the new, circular Wet Well was achieved, extended an additional two feet, and GMU inspected and accepted to the bottom of the excavation. The new, circular Wet Well was delivered to the project site, and waterproof coating was applied in the field. Subsequent to the curing of the waterproof coating, the new, circular Wet Well was set in its location. The leakage test was performed and monitored on the new Wet Well, observed to meet Specifications, and FERREIRA proceeded to backfill the new Wet Well with ¾-inch gravel.

Coring for penetrations, i.e. 8-inch Sewer and 4-inch Drainage from Dry Well, were performed, and the 8-inch Sewer line was extended and connected to the existing 8-inch Sewer pipeline (which was protected in-place at the start of the Demolition activities). FERREIRA proceeded to remove and demolish the existing Dry Well. Excavation to the bottom was achieved, GMU inspected and accepted the bottom of the excavation for the supporting materials for the Dry Well. The forms and reinforcement bars for the bottom of the Dry Well were placed, and prepared to receive the concrete pour. GMU performed concrete inspections, and obtained cylinders for compressive strength tests.

During demolition efforts of the existing Wet and Dry Wells, Vibration Monitoring Systems were placed at residences of 93 Bell Canyon and 95 Bell Canyon, and results generally reflect "no exceedances" where waveforms of the vibration to evaluate the type of vibrations occurring and determine the source, i.e. construction equipment use. DMC Engineering continued to perform periodic monitoring surveys for any movement to existing walls; and results will be provided after most construction activities are completed.

Through the end of April, FERREIRA continued to receive the delivery of the remaining Dry Well pre-fabricated section, and completed installation. The mechanical piping of the Dry Well was being assembled and ready for placement.

III. CONSTRUCTION ACTIVITIES FOR THIS REPORTING PERIOD

The following work activities were performed during this reporting period:

- Completion of Retaining and Block Wall Improvements including Subdrain
- Removal of Existing Wet Well
- Delivery and installation of new, circular Wet Well
- Removal of Existing Dry Well
- Form and install Concrete Slab for Dry Well
- Continue Vibration Monitoring and Monitoring Surveys
- Delivery and install remaining portion of pre-fabricated Dry Well

IV. ANTICIPATED CONSTRUCTION ACTIVITIES – NEXT REPORTING PERIOD

The following work activities are anticipated to occur during the next reporting period:

- Install Dry Well Mechanical Piping
- Install Mechanical Underground Piping
- Install Electrical Underground Piping
- Start to install MCC, Sump Termination Panel, Switchboard, and ATS
- Install Level Transducers in Wet Well

V. CONTRACTOR SUBMITTALS

Through the end of the reporting period, the following submittals have been received:

	Lift Station
Prior Submittals	57
Submittals Received This Period	2
<hr/> TOTAL SUBMITTALS	<hr/> 59

VI. CONTRACTOR REQUEST FOR INFORMATION (RFIs)

Through the end of the reporting period, the following RFIs have been received:

	Lift Station
Prior RFIs	23
RFIs Received This Period	2
<hr/>	
TOTAL RFIs	23

VII. CHANGE ORDERS

No approved change orders were issued to FERREIRA during this reporting period. However, it is anticipated that a separate Change Order Request for the extension of the Contract Completion Date. This is due to the procurement and fabrication delays of materials, and the scheduled time for power Switch Over controlled by SCE. The new Contract Completion Date of July 5, 2021.

VIII. SCHEDULE

As currently scheduled the Completion Date for the Lift Station is July 5, 2021. See Appendix A.

IX. PHOTOS

Construction photos documenting the FERREIRA's activities and progress during this reporting period are provided in Appendix B.

X. BELL CANYON MONITORING

Monitoring field surveys are being performed by DMC Engineering on a periodic basis through the duration of the Project. Initial Surveys was performed on February 26, 2021, and a follow-up Survey was performed on March 10, 2021. The results between these dated Surveys reflected a +0.01-foot and -0.01-foot on established points, and a Monitoring Survey Exhibit is provided in Appendix C.

APPENDIX A

Schedule

APPENDIX B

Construction Photos



Waterproof Coating for new Retaining Wall



Waterproof Coating for new Retaining Wall



Preparation for Subdrain System



Subdrain System



Shoring Removal after Retaining Wall is constructed



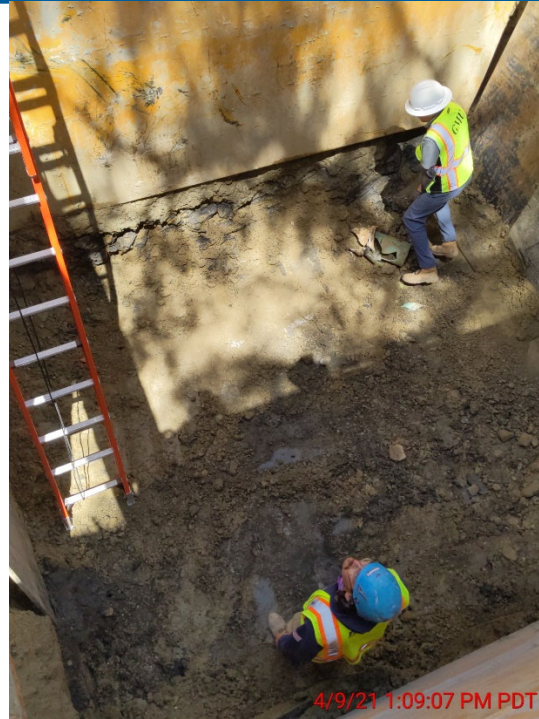
Removal and demolish Existing Wet Well



Excavate and place Shoring for new, circular Wet Well



Excavate to bottom of Wet Well



Wet Well Bottoms Certified by GMU



Wet Well Delivery



Waterproof Coating Sections of Wet Well



Setting Wet Well



Wet Well Set



Leakage Test performed and accepted



New 8-inch Sewer Line Extension and Connection to Existing Sewer Line



New 8-inch Sewer Line and Point of Connection to Existing Sewer Line



Removal of Existing Dry Well



Demolish Existing Dry Well



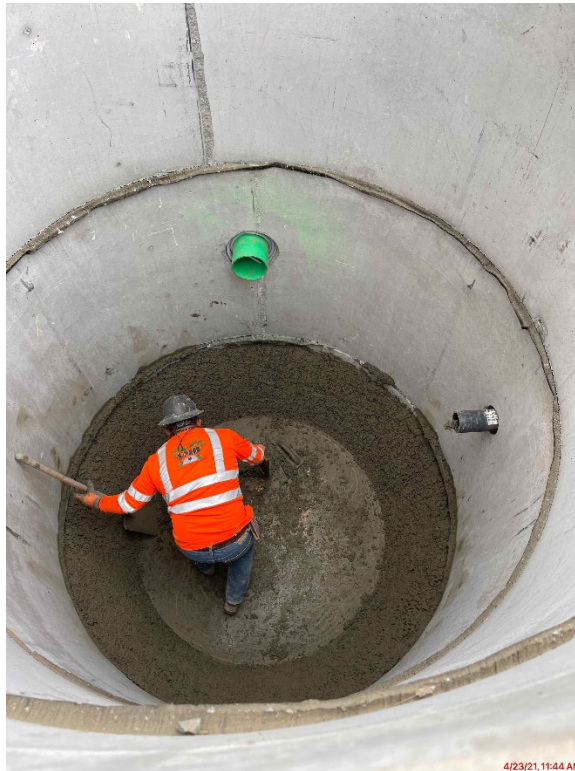
GMU Certified Bottom of Dry Well



Form and reinforce Dry Well Concrete Slab



Concrete Pour for Dry Well Slab



Concrete Pour for Wet Well Chamfer



Concrete Slab for Dry Well



Vibration Monitoring Devices for residents of 93 & 95 Bell Canyon Drive during Demolition Efforts

APPENDIX C

Monitoring Survey Exhibit

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MAY 5, 2021**

ENGINEERING MATTERS

ITEM 3: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

1. 2020 Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP) Update
2. Saddle Crest Development
3. Other Projects

RECOMMENDED ACTION:

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

EXHIBIT(S):

1. 2020 UWMP & WSCP Notification and Adoption Timeline

CONTACTS (staff responsible): PALUDI/PEREA/LAUSTEN

2020 UWMP & WSCP Notification and Adoption Timeline

Project Task Description	Schedule
60 Day Notification letter to OC Public Works, County of Orange Clerk Recorder, City of Lake Forest, City of RSM, City of Mission Viejo	March 8, 2021
First Plan Draft	March 16, 2021
Receive Final Plan Draft	May 1, 2021
Receive First WSCP Draft	May 10, 2021
Receive Final WSCP Draft	May 24, 2021
Final Plan & WSCP to E/O	June 2, 2021
First Notice of Hearing in newspaper	By June 2, 2021
Second Notice of Hearing in newspaper	By June 9, 2021
<ol style="list-style-type: none"> 1. Hold Public Meeting 2. Adopt 2020 Urban Water Management Plan 3. Adopt 2020 Water Shortage Contingency Plan 4. Adopt Addendum to 2015 UWMP for inclusion of Appendix C 5. Consideration of an Ordinance for the Water Shortage Contingency Response 	June 16, 2021
DWR Submittal Due	July 1, 2021
Submit UWMP to the California State Library and city or county	August 1, 2021

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MAY 5, 2021**

OPERATIONAL MATTERS

ITEM 4: WATER SYSTEM UPDATES

The following is a brief report of the water system for **April 2021**.

Projects and Repairs

1. Water Operations staff assisted Ferreira Construction with the completion of the 16- inch leak repair on the El Toro Bike Trail, which was caused by the County of Orange personnel.
2. Water Operations staff assisted Ferreira Construction with the install of the 16-inch isolation valve, main distribution line on the El Toro Bike Trail.
3. Water Operations staff converted the three (3) Dry Barrel Hydrants to Wet Barrel Hydrants in the Robinson Ranch Community, Hamilton Trail and O'Neil Park Shopping Center in the Canyon Community.
4. Water Operations staff replaced two Air Vacs at Regency Park in Lake Forest, and the Upper Falcon Zone in the Canyon Community.
5. Water Operations staff repaired a 6-inch hydrant valve on Morningside Drive in the Trabuco Highlands Community.
6. Water Operations staff conducted seven (7) fire flow test for the Developer on Hamilton Trail in the Canyon Community.

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): PALUDI/KESSLER

**TRABUCO CANYON WATER DISTRICT
MONTHLY WATER SYSTEM OPERATIONS SUMMARY**

2021													
DIMENSION WTP													
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
SAC METER AC/FT	160	125											
BACKWASH AC/FT	4	4	2.0										
FLUSHWATER AC/FT	7	6	3.0										
WTP EFFLUENT AC/FT	175	124	83										
Wells													
TRABUCO CREEK GWTF	0	0	0										
US WELL AC/FT	0	0	0										
AMP WATER													
SMWD AC/FT	0.12	2	8										
IRWD AC/FT	0	12.4	53.4										
TOTAL SUPPLY													
AC/FT	175	138	145										
CFS DAILY AVERAGE	2.8	2.5	2.3										
AC/FT PER DAY	5.6	5.0	4.6										
OPERATIONS in GAL.													
WTP DOMESTIC	32,239	27,377	29,845										
WWTP DOM	17,354	18,176	8,751										
OPERATIONS (AF)													
SUPPLEMENT TO RW	0	0	0										
LOSSES in GAL.													
FLUSHING (gal.)	0	0	0										
SEWER CLEANING (gal.)	5,000	5,000	5,000										
LINE BREAKS (gal.)	100,000	24,000	200,000										
SYSTEM DEMAND **													
CFS DAILY AVERAGE	2.8	2.5	2.3										
AC/FT PER DAY	5.6	5.0	4.6										
RESERVOIR STORAGE													
MONTHLY AVG (MG)	9.0	8.8	8.4										
DAYS OF STORAGE	4	3	3										
ZONES (AF)													
RIDGELINE PS	127	107	73										
EL TORO P.S.	18	20	53										
TOPANGA	2	2	2										
FALCON	0.3	0.2	2.4										
ROSE PRV/ OAKS	1	1	1										
CANYON CREEK	0.1	0.2	0.2										
ROSE P.S.	0.3	0.3	0.2										
ROBINSON RANCH	31	31	34										
DOVE CANYON	61	54	62										
PORTOLA HILLS	11	10	10										

* Usage estimated new meter installed

** Excludes Operational use, losses, and supplement to Recycled Water Reservoir (RW)

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MAY 5, 2021**

OPERATIONAL MATTERS

ITEM 5: WASTEWATER SYSTEM UPDATES

The following is a brief report of the wastewater system for **April 2021**.

Projects and Repairs

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

1. Performed routine maintenance on the Robinson Ranch Wastewater Treatment Plant (WWTP) Filtration System by replenishing the anthracite coal media and cleaned the filter backwash tank.
2. Worked with Maintenance Department staff to clean the WWTP Chlorine Contact Chamber.
3. Prepared the spare filter tank at the WWTP for removal and disposal.
4. Worked with Maintenance Department staff to add a new Equalization Basin sump pump panel.
5. Hosted a tour of the WWTP for a local Robinson Ranch Girl Scout Troop on Friday, April 30th.

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*	210,495
Total Sewer Line Cleaned (Ft) – Month	16,231
Total Sewer Line Cleaned (Ft) – Cleaning Cycle	134,537
Cleaning Cycle Period (Mos.)	14
Total Sewer Line Cleaned, %	68%
The Oaks at Trabuco – Pumping Frequency for the Month	9
O'Neill Park Sewer System Status	Ok
O'Neill Park Sewer System Repairs	None
SSMP Quarterly Report – <i>Next Quarterly Report</i>	June 2021
SSMP Program Audit – <i>Next Audit Report**</i>	January 2022

**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): PALUDI/PEREA

TRABUCO CANYON WATER DISTRICT | NON-DOMESTIC WATER SYSTEM SUMMARY - 2021

RECYCLED WATER SUPPLY															
	MAX	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL	FIVE YEAR AVG
WWTP Reclaimed Water Production, AF	78.3	50.6	43.9	52.8										147.3	550.04
Reclaimed Reservoir Level, FT	1274.5	1,266.0	1,268.5	1,270.8										-	-
Reclaimed Reservoir Free Board, FT	25.5	8.5	6.0	3.7										-	-
Reclaimed Reservoir Storage, AF	145.5	96.4	112.5	125.2										-	-
Supplemental Domestic Water Added, AF	N/A	0.0	0.0	0.0										0.0	72.88
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										0.7	8%
Dove Canyon Golf Course	106.7	6.6	7.1	10.6										24.3	23%
Dove Canyon Master Association	279.3	5.5	5.7	7.1										18.3	7%
Robinson Ranch	80.2	0.9	1.3	1.3										3.4	4%
Trabuco Highlands	159.7	3.7	3.0	2.1										8.8	5%
City of RSM	0.1	0.0	0.0	0.0										0.0	0%
Construction Water	N/A	0.0	0.0	0.0										0.0	N/A
Sakaïda Nursery	1.1	0.0	0.0	0.0										0.0	0%
SMWD	N/A	0.0	0.0	0.0										0.0	N/A
TY Nursery	17.9	0.0	5.8	4.0										9.8	55%
TOTAL, AF	653.2	16.8	23.1	25.3										65.2	10%
PERCENTAGE OF NDW ALLOCATION/YEAR		3%	6%	10%											
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		0.0	0.0	0.1										0.1	21.2
Dove Tick Creek Production*	<i>Dry Season</i>	0.0	0.0	0.0										0.0	102.7
	TCWD Portion	0.0	0.0	0.0										0.0	-
	SMWD Portion	0.0	0.0	0.0										0.0	-
Dove Lake Water Pumped		0.0	0.0	0.0										0.0	201.7
Dove Lake Free Board, Ft		5.6	5.3	3.2										-	-
Dove Lake Storage		128.0	131.5	166.4										-	-
Total Rainfall, In.		1.7	0.0	1.2										2.9	14.5

* 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 | MAY 5, 2021**

OPERATIONAL MATTERS

ITEM 6: MAINTENANCE DEPARTMENT UPDATES

The following is a brief report of the wastewater system for **April 2021**.

Projects and Repairs

1. Maintenance Department staff began assembly for the newly purchased vehicles for District Operations staff.
2. Maintenance Department staff installed a new pump/motor for the Tick Creek Dry Season Recovery Booster Station.
3. Maintenance Department staff continued the electrical upgrades and repairs at the Robinson Ranch Wastewater Treatment Plant.
4. Maintenance Department staff worked with Sanitation Operations to re-pack multimedia filters at the Robinson Ranch Wastewater Treatment Plant.
5. Maintenance Department staff has completed the EMASS program with TESCO Controls.

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

None

CONTACTS (staff responsible): PALUDI/STROUD

**TRABUCO CANYON WATER DISTRICT
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**REGULATORY AND OTHER MATTERS
ITEM 7: 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