

ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA TRABUCO CANYON WATER DISTRICT

32003 DOVE CANYON DRIVE, TRABUCO CANYON, CA VIDEO/AUDIO BROADCAST MEETING DECEMBER 2, 2020 AT 7:00 AM

COMMITTEE MEMBERS

Edward Mandich, Committee Chair Stephen Dopudja, Committee Member Don Chadd, 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 (**Go To Meeting**), 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://global.gotomeeting.com/join/597863693

Telephone Audio: <u>1 866 899 4679</u> (Toll Free)

Access Code: 597-863-693

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.

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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 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. November 4, 2020

ENGINEERING MATTERS

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

ITEM 2: DISCUSSION AND POSSIBLE ACTION(S) RELATED TO THE PROPOSED PALOMA SQUARE DEVELOPMENT (DOVE CANYON PLAZA) AND OTHER RELATED MATTERS

RECOMMENDED ACTION:

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

ITEM 3: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING PORTER PROPERTY RESERVOIR PLANNING LEVEL CONSTRUCTION COST ESTIMATE

RECOMMENDED ACTION:

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

ITEM 4: 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.



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ITEM 5: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING TRABUCO CANYON WATER DISTRICT'S SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM UPGRADE PROJECT

RECOMMENDED ACTION:

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

ITEM 6: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING THE PROPOSED BARNEBURG LIFT STATION DRY PIT REHABILITATION

RECOMMENDED ACTION:

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

ITEM 7: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING THE DIMENSION WATER TREATMENT PLANT WASTE TANKS AND BACKWASH SUMP PUMP REPLACEMENT

RECOMMENDED ACTION:

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

ITEM 8: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING THE OAKS AT TRABUCO, LLC ENGINEERING STUDY

RECOMMENDED ACTION:

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

ITEM 9: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

- 1. Saddle Crest Development
- 2. Heritage Lift Station Site and Security Improvements
- 3. Asset Management/Condition Assessment Study
- 4. Silvertree Lane Pipeline Replacement
- 5. Trabuco Creek Bridge Replacement
- 6. 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

ITEM 10: WATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.



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ITEM 11: WASTEWATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

ITEM 12: MAINTENANCE DEPARTMENT UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

REGULATORY AND OTHER MATTERS

ITEM 13: 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 | DECEMBER 2, 2020

ADMINISTRATIVE MATTERS

ITEM 1: ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP

RECOMMENDED ACTION:

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

1. November 4, 2020

CONTACTS (staff responsible): PALUDI/PEREA



TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | NOVEMBER 4, 2020

DIRECTORS PRESENT

Ed Mandich, Committee Chair Stephen Dopudja, Committee Member

STAFF PRESENT

Fernando Paludi, General Manager
Michael Perea, Assistant General Manager/District Secretary
Lorrie Lausten, District Engineer
Gary Kessler, Water Department Superintendent
Jason Stroud, Maintenance Department Superintendent
Karen Warner, Senior Accountant
Lisa Sangi, Administrative Assistant

PUBLIC PRESENT VIA CONFERNECE CALL

None

CALL MEETING TO ORDER

Director Mandich called the November 4, 2020 Engineering/Operational Committee Meeting to order at 7:02 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

None

REPORT FROM THE GENERAL MANAGER

Mr. Paludi reported that District staff had been contacted by Dove Canyon Master Association with questions concerning the proposed non-domestic water rates for their budgeting purposes.

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

Director Mandich recused himself from meeting business and exited to the Board Room at approximately 7:05 am.

TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | NOVEMBER 4, 2020

ITEM 2: DISCUSSION AND POSSIBLE ACTION(S) RELATED TO THE PROPOSED PALOMA SQUARE DEVELOPMENT (DOVE CANYON PLAZA) AND OTHER RELATED MATTERS

Mr. Paludi presented this matter for Committee consideration, and he reported that District staff has not been contacted by any of the parties involved with this matter. Discussion occurred concerning Dove Canyon Plaza paving improvements and matters discussed with the District Ad Hoc Committee. Ms. Lausten provided an update on the parking study performed by AGA Engineers, and she reported that a representative was onsite the prior day at the District's Administration Facility served as a voting center for the General Election. Discussion occurred concerning early voting turnout. Ms. Lausten reported that a DRAFT report will be presented the following month.

RECOMMENDED ACTION:

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

Director Mandich returned to the Board Room at approximately 7:35am and resumed his participation on the remaining business.

ITEM 3: URBAN WATER MANAGEMENT PLAN COST SHARING AGREEMENT WITH MWDOC

Mr. Paludi presented this matter for Committee consideration, and he reported that the District has worked with Municipal Water District of Orange County (MWDOC) on the preparation prior Urban Water Management Plans (UWMP). Ms. Lausten provided a brief review of the proposed UWMP updates and proposed budget, and she recommended that the Board authorize the General Manager execute the proposed cost sharing agreement with MWDOC for the preparation of the 2020 UWMP Update.

RECOMMENDED ACTION:

Recommend that the Board of Directors authorize the General Manager to execute a cost sharing agreement with Municipal Water District of Orange County for 2020 Urban Water Management Plan preparation services for a not to exceed amount of \$39,000 (Action Calendar).

ITEM 4: AMENDMENT TO SUPPLEMENTAL AGREEMENT BETWEEN TCWD AND THE OAKS AT TRABUCO, LLC FOR SEWAGE SERVICES

Mr. Paludi presented the matter for Committee consideration, and he provided a brief update on the proposed supplemental agreement amendment for sewer hauling services. Discussion occurred concerning certain proposed agreement terms and length of time. Mr. Paludi recommended a five-year extension period for the agreement amendment. Discussion occurred concerning alternative sewer conveyance options and related costs.

RECOMMENDED ACTION:

Recommend that the Board of Directors authorize the General Manager to execute the Third Extension Agreement Between Trabuco Canyon Water District and The Oaks at Trabuco, LLC (Action Calendar).

ITEM 5: OTHER ENGINEERING AND OPERATIONS PROJECTS

1. Saddle Crest Development

Mr. Paludi introduced this matter for Committee review, and he provided a brief review of the District staff discussions with the developer. Ms. Lausten reported that the developer has requested that the District complete the onsite reservoir and pump station testing in accordance with the agreement, but she reviewed the unique challenges associated with the testing. Discussion occurred concerning potential alternative testing methods that may be used to satisfy the terms of the agreement and acceptance of the facilities. The Committee recommended that District staff continue to work with the developer on this matter and to obtain an updated development schedule.

TRABUCO CANYON WATER DISTRICT

ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | NOVEMBER 4, 2020

2. Silvertree Lane Pipeline Replacement

Ms. Lausten provided a brief update on this project, and she reviewed the project construction schedule. Discussion occurred concerning certain project challenges and timeline for completion. Ms. Lausten reported that Ferreira Construction has been a great contractor to work with on this project and she commended Water Operations staff for their hard work.

3. Other Projects

Ms. Lausten provided a brief update on the T-Mobile antenna damage to the District Trabuco Tanks, and she reported that District staff is working with its independent, third-party representative ATS to work with T-Mobile concerning the matter.

RECOMMENDED ACTION

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

ITEM 6: WATER SYSTEM UPDATES

Mr. Kessler reviewed the projects and repairs for October 2020, and he provided the additional highlights:

- 1. Water Operations staff repaired a struck air vac on Wood Canyon in the Santiago Estates Community.
- 2. Water Operations staff replaced one curb stop on Summit Crest in the Dove Canyon Community.
- 3. Water Operations staff flushed 62 Hydrants in the Canyon area and Santiago Estates Community.
- 4. Water Operations staff worked with Ferreira Construction on the Silvertree Lane water main replacement project located in the Trabuco Highlands Community.
- 5. Water Operations staff worked with ATS Communications on the repairs for the T-Mobile cell site located on the Trabuco Tanks.

Mr. Kessler reviewed the Monthly Water System Operations Summary with the Committee, and he provided a brief update on fire hydrant flushing efforts during the prior month.

RECOMMENDED ACTION

The Committee received the status update.

ITEM 7: WASTEWATER SYSTEM UPDATES

Mr. Perea reviewed the projects and repairs for October 2020, and he provided the additional highlights:

- 1. Wastewater Operations staff assisted the maintenance department with installation of the new belt filter press roller.
- 2. Wastewater Operations staff installed a new stainless-steel bubbler tubing for the influent equalization basin.
- 3. Wastewater Operations staff began installation of the new duck weed capture system for Dove Lake.
- 4. Wastewater Operations staff assisted Hydrotech Electric during the installation of a new electric conduit for the equalization basin.
- 5. Wastewater Operations staff began the quarterly commercial users grease trap inspections as a part of the FOG program.

Mr. Perea reviewed the Monthly Wastewater System Operations Summary, and he provided an update on Operations FOG Program compliance efforts during the month.

RECOMMENDED ACTION

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

TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | NOVEMBER 4, 2020

ITEM 8: MAINTENANCE DEPARTMENT UPDATES

Mr. Stroud reviewed the projects and repairs for October 2020, and he provided the additional highlights:

- 1. Maintenance Department staff assisted with the Rain for Rent equipment removal from Dove Lake Recycled Water Booster Pump Station.
- 2. Maintenance Department staff assisted Vaughan Industrial while working on Jet Pump Rehab Project at the Robinson Ranch Wastewater Treatment Plant.
- 3. Maintenance Department staff assisted Hydrotech Electric at the Robinson Ranch Wastewater Treatment Plant installing LED lights in Maintenance Shop.
- 4. Maintenance Department staff assisted Hydrotech Electric at the Robinson Ranch Wastewater Treatment Plant repairing a conduit for EQ basin controls.
- 5. Maintenance Department staff assisted Hydrotech Electric at the Robinson Ranch Wastewater Treatment Plant installing a conduit for MCC at the Operations building.
- 6. Maintenance Department staff repaired the belt roller at the Robinson Ranch Wastewater Treatment Plant Belt Press dewatering equipment.
- 7. Maintenance Department staff repaired/replaced motor aerator on the Reclaim Reservoir located at the Robinson Ranch Wastewater Treatment Plant.
- 8. Maintenance Department staff replaced tires on CAT 430e Backhoe.
- 9. Maintenance Department staff witness test the new Fairbanks pumps for El Toro Lift Station North Side wet well
- 10. Maintenance Department staff assisted Operations on the emergency response to the Topanga Booster Pump Station and the O' Neil Sewer Lift Station due to Silverado Fire.

Discussion occurred concerning the failure of the backup power generator at Topanga Booster Pump Station; Mr. Stroud reported that District staff requested mutual aid from Santa Margarita Water District for mobile backup power generator, and that District staff have ordered the replacement parts for the onsite backup power generator for installation in the coming week.

RECOMMENDED ACTION

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

ITEM 9: OTHER MATTERS/REPORTS

There were no other matters or reports provided to the Committee.

Discussion occurred concerning electrical power outages in the service area and District efforts to notify customers of planned power outages that may affect District facilities and impact customers.

RECOMMENDED ACTION

There was no action taken.

ADJOURNMENT

Director Mandich adjourned the November 4, 2020 Engineering/Operational Committee Meeting at 8:09 AM.

TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 2, 2020

ENGINEERING MATTERS

ITEM 2: DISCUSSION AND POSSIBLE ACTION(S) RELATED TO THE PROPOSED PALOMA SQUARE DEVELOPMENT (DOVE CANYON PLAZA) AND OTHER RELATED MATTERS

Trabuco Canyon Water District (TCWD or District) owns the Administration Facility and the property upon which it resides; the property is adjacent to the Dove Canyon Plaza commercial center. On July 24, 2019, Dove Canyon Recovery Acquisition, LLC (DCRA), the owner of Dove Canyon Plaza, with their consultant William Lyon Homes (now Taylor Morrison) submitted a proposal to the City of Rancho Santa Margarita (City) for a change in use from commercial to residential. The proposed project is titled "Paloma Square." The initial submittal to the City, and all subsequent submittals, project information, and correspondence between City and William Lyon Homes/Taylor Morrison related to Paloma Square are available on the City's website. The District's website, under the "Community" tab, also includes information and correspondence regarding proposed project.

Due to the potential impacts of the Paloma Square development to the District's Administration Facility, District Staff recommended conducting a Parking Capacity Study and contracted with AGA Engineers, Inc. to complete the work (Exhibit 1).

More information may be presented at the time of the meeting.

FUNDING SOURCE:

General Fund

FISCAL IMPACT:

\$10,000

ENVIRONMENTAL COMPLIANCE:

Not applicable

RECOMMENDED ACTIONS:

Committee to receive information at the time of the Committee Meeting

EXHIBIT(S):

1. Parking Capacity Study – Draft

CONTACTS (staff responsible): PALUDI/PEREA/LAUSTEN



November 20, 2020

Ms. Lorrie Lausten, P.E.
District Engineer
Trabuco Canyon Water District
32003 Dove Canyon Drive
Trabuco Canyon, California 92679

RE: Parking Demand Study for the Trabuco Canyon Water District and Paloma Square Condominium Project

Dear Ms. Lausten:

AGA Engineers, Inc. (AGA) is pleased to present to you this letter report that provides the results of the parking demand study regarding the proposed Paloma Square Condominium Project adjacent to the Trabuco Canyon Water District (District) facility in the City of Rancho Santa Margarita. The goal of the study was to determine what the parking demand is when there are events at the District facility and if there will be an adequate supply of parking spaces for those events if the Paloma Square Condominium Project were to replace the existing Dove Canyon Plaza shopping center.

Study Area

The District facility is located off Dove Canyon Drive and is adjacent to the shopping center. The District and the shopping center share the only access off Dove Canyon Drive (see Figure 1). Based on conversation with District staff, there is an existing reciprocal parking/access agreement between the District and the property owner of the shopping center. Therefore, the District currently utilize the shopping center's parking for events that require additional parking.



Figure 1 - Study Area

For the parking demand survey, the parking areas that were utilized during the District event were separated into zones (shown on **Figure 2**). Based on the existing parking configuration for both the District and the shopping center, the District has 35 parking spaces on-site, which includes five spaces (Zone 3) that is shared with the shopping center. Zones 1 and 2 are on the District's property and have a total of 30 parking spaces. The parking areas (Zones 4-9) for the shopping center were evaluated based on the proximity to the District. The parking areas outside of these zones were not considered based on the events evaluated, but were checked periodically during the surveys to see if people going to the District would park there. The parking spaces for Zones 4-9 total 124 parking spaces. Therefore, the total available parking for Zones 1-9 are 159 parking spaces. There is also available street parking along Dove Canyon Drive (Zones 20 and 21). For Zones 20 and 21, there are approximately 102 parking spaces available (assuming 20 foot per parking space) and this does <u>not</u> include the temporary parking for the park on the north side of Dove Canyon Drive. During the school year (Pre-COVID-19 conditions), it was observed that students from Santa Margarita High School park along Dove Canyon Drive. During the morning to early afternoon (3:00 pm), this area is heavily parked with only approximately ten available spaces to park on Dove Canyon Drive.

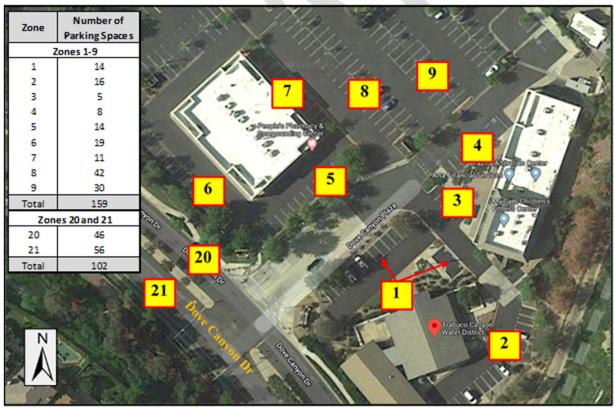


Figure 2 - Parking Zones



The current owner of the shopping center proposes to develop the site into a residential property that will include 120 multifamily units. The proposed project will have gated access and continue to share the existing access with the District. **Figure 3** shows the proposed site plan. Due to the proposed project's layout, the District's available parking will be restricted to the parking spaces on the District's property (existing Zones 1 and 2 = 30 parking spaces), potentially the existing area for Zone 3 (five parking spaces) and the on-street parking along Dove Canyon Drive (Zones 20 and 21). For this evaluation, it will be assumed that the District will be able to continue to use the five parking spaces for Zone 3. Therefore, due to the residential project, the available on-site parking for the District will be limited to 35 parking spaces. During school hours (before 3:00 pm weekdays), there are only approximately ten available parking spaces on Dove Canyon Drive. Therefore, during school hours, the total available parking spaces for the District would be 45 parking spaces for the project scenario.

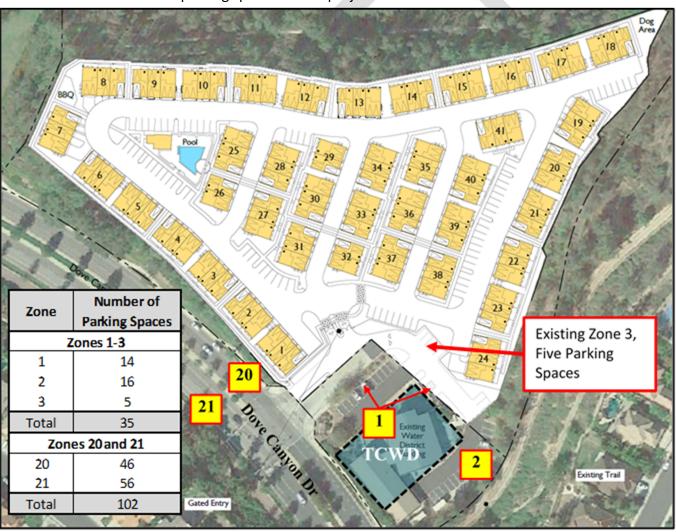


Figure 3 - Proposed Site Plan



Ms. Lorrie Lausten, P.E. November 20, 2020 Page 4 of 8

Typically, there are monthly meetings held at the District facility. The larger meetings with a typical attendance over 30 are shown below. A complete list of meetings at the District is attached.

Monthly Meeting (Typical Attendance)

- District Board (45)
- District staff (30)
- Bi-Monthly, South Orange County Agencies' Group (50)
- Community Associations of Rancho (CAR) (45)
- Dove Canyon Master Association (30)
- Robinson Ranch Homeowners Association (45)
- Trabuco Highlands Community Association (45)
- Walden Homeowners Association (45)
- Rancho Trabuco Girls Softball (35)
- Santa Margarita/Trabuco Hills Pop Warner (35)

Based on discussions with the District, three events were evaluated to determine what the parking demand for those events are and if there will be available parking for these events if the proposed residential project site is developed. The three events AGA evaluated in 2020 were the District Board meeting, the State Primary Election voting day and the Presidential Election voting day. Due to the COVID-19 pandemic, the District had to cancel their most popular annual event, Water Awareness Day. The event generates a significant turn out from the public with activities and food for families and is generally held in early May. For the three surveyed events, since there was ample available parking in the shopping center (probably due to the COVID-19 conditions), only vehicles that parked for the District event were counted. The parking demand not only included demand for the event, but included the typical parking demand for District staff operations at the facility.

Event 1 – Trabuco Canyon Water District Board Meeting (January 28, 2020)

Based on the evaluation, the peak parking demand occurred at 12:30 pm and there were 32 occupied spaces for the District facility (see **Table 1**). This includes members of the meeting as well as the day-to-day District staff. However, the District mentioned that attendance was down for this meeting and it occurred after the holidays which therefore might account for the drop in attendance. AGA could not determine who was going to the District facility for the meeting or work (staff), it is estimated that half of the 32 were for the meeting since approximately half of those arrived at the time for the meeting. Per



Ms. Lorrie Lausten, P.E. November 20, 2020 Page 5 of 8

the District, typically there are about 45 attendees for this meeting. It was also noticed that there was single occupancy for the vehicles that parked at the time of the meeting. Therefore, if the meeting had the typical demand of 45 attendees, there would be insufficient on-site parking. As mentioned beforehand, during the school year (Pre-COVID-19 conditions), the on-

Table 1 – District Board Meeting (Jan, 28, 2020)

Time	Parking	g Zones	Total TCWD				
Tille	1-3	4-9	Parking Demand				
11:30 AM	19	0	19				
12:00 PM	30	1	31				
12:30 PM	31	1	32				

street parking is utilized by Santa Margarita High School students and is generally 90 percent full (ten available parking spaces). Therefore, it is unlikely that there will be adequate parking for a typical District Board meeting with the proposed residential project.

Event 2 – Primary Election Voting Day (March 3, 2020)

The second event involved the Primary Election Voting Day on Tuesday, March 3, 2020. The District facility was open for voters prior to this day, but it was estimated that this would be the peak day for the voter turn-out. The District provided the number of voters who electronically checked-in (see below). It does not include the mail-in/drop off ballots.

Saturday, February 29th: 69 voters
 Sunday, March 1st: 65 voters
 Monday, March 2nd: 158 voters

- Tuesday, March 3rd: 890 voters

Based on the Tuesday, March 3rd survey, the peak parking demand of 68 parking spaces occurred at 3:30 pm (see **Table 2**). The demand ranged from 50 to the low 60s throughout most of the day. Therefore, there would not be adequate parking for the project scenario during the school hours (before 3:00 pm) as the total parking capacity for the project scenario is 45 parking spaces. After 3:00 pm on a typical school day, there would be adequate parking for such an event, due to the available on-street parking along Dove Canyon Drive.



Table 2 – Primary Election Voting Day (Mar 3, 2020)

Time	Parking	g Zones	Total TCWD
Time	1-3	4-9	Parking Demand
7:00 AM	17	7	24
7:30 AM	18	6	24
8:00 AM	21	9	30
8:30 AM	23	11	34
9:00 AM	26	18	44
9:30 AM	27	26	53
10:00 AM	27	24	51
10:30 AM	29	22	51
11:00 AM	26	22	48
11:30 AM	32	22	54
12:00 PM	30	27	57
12:30 PM	27	17	44
1:00 PM	27	13	40
1:30 PM	23	20	43
2:00 PM	20	21	41
2:30 PM	24	27	51
3:00 PM	29	27	56
3:30 PM	33	35	68
4:00 PM	29	38	67
4:30 PM	21	28	49
5:00 PM	26	34	60
5:30 PM	28	33	61
6:00 PM	27	37	64
6:30 PM	22	26	48
7:00 PM	26	26	52
7:30 PM	24	25	49
8:00 PM	13	16	29

Event 3 – Presidential Election Voting Day (November 3, 2020)

The third event involved the Presidential Election Voting Day on Tuesday, November 3, 2020. Similar to the Primary Election Voting Day, the District facility was open for voters prior to this day, but it was again estimated that the peak day for the voter turn-out would be on Tuesday, the day of the election. Below are the number of voters who electronically checked-in (does not include the mail-in/drop off ballots).



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Friday, October 30th: 615 voters
 Saturday, October 31st: 287 voters
 Sunday, November 1st: 343 voters
 Monday, November 2nd: 569 voters
 Tuesday, November 3rd: 720 voters

The data provided by the District shows that Tuesday, November 3rd had the highest turn-out, although there was a high number of voters on Friday, October 30th and Monday, November 2nd. Based on the Tuesday, November 3rd survey, the peak parking demand of 50 parking spaces occurred at 2:00 pm (see **Table 3**). Therefore, there would not be adequate parking for the project scenario during the school hours (before 3:00 pm) as the total parking capacity for the project scenario is 45 parking spaces. After 3:00 pm on a typical school day, there would be adequate parking for such an event, due to the available parking along Dove Canyon Drive. As the voter turn-out was quite large on Friday and Monday of the voting period, the parking demand could have been similar to that on Election Day. The survey spreadsheets for the Primary and Presidential Election days are attached.

Table 3 – Presidential Election Voting Day (Nov 3, 2020)

Time	Parking	g Zones	Total TCWD
Tille	1-3	4-9	Parking Demand
11:00 AM	26	0	26
11:30 AM	30	9	39
12:00 PM	27	9	36
12:30 PM	30	18	48
1:00 PM	24	14	38
1:30 PM	25	18	43
2:00 PM	31	19	50
2:30 PM	25	18	43
3:00 PM	24	0	24
3:30 PM	29	10	39
4:00 PM	23	24	47
4:30 PM	24	17	41
5:00 PM	26	8	34
5:30 PM	24	13	37
6:00 PM	25	12	37
6:30 PM	24	10	34
7:00 PM	24	8	32
7:30 PM	24	9	33
8:00 PM	23	4	27



Ms. Lorrie Lausten, P.E. November 20, 2020 Page 8 of 8

Based on the evaluations of the three events, there would be insufficient available parking (on-site and off-site) at the District facility with the proposed residential project during school hours, before 3:00 pm, on a weekday. For the monthly meetings during school hours, if the typical attendance were to occur, there could be instances where there is not sufficient parking for the meeting. For District meetings after 3:00 pm on a typical weekday and on a weekend where there are no adjacent events nearby (Santa Margarita High School), there would sufficient parking for those meetings with approximately 102 on-street parking spaces in addition to the 35 on-site parking spaces. However, any large event (i.e., Water Awareness Day) that will require more than 137 parking spaces (any day and time of week) would need additional parking resources.

If you have any questions, please feel free to email me at greg@agaengineersinc.com.

Respectfully submitted,

Greg Wong, P.E. Vice President

Attachments – District Meeting list, Primary Election Voting Data, Presidential Election Voting Data

1 AGA Engineers, Inc. - TCWD Parking Demand Study (11-19-20).docx



TRABUCO CANYON WATER DISTRICT ADMINISTRATION FACILITY USAGE BY MEETING, EVENT, AND NON-PROFIT GROUP USE

LINE ITEM	MEETING DESCRIPTION	FREQUENCY	TYPICAL ATTENDANCE
	DISTRICT MEETINGS/EVENTS		
1	Ad Hoc Committees	Infrequent, but can be monthly	12
2	Engineering/Operational Committee Meeting	Monthly	15
3	Executive Committee Meeting	Quarterly	10
4	Finance/Audit Committee Meeting	Monthly	10
5	Regular Board Meeting	Monthly	45
6	Special Board Meeting	Infrequent, but can be monthly	20
7	Annual Water Awareness Day Event	Annual	300
8	Risk Management Staff Training (ACWA JPIA)	Bi-Monthly	25
9	District Staff Meetings	Monthly	30
10	South Orange County Agencies' Group Meeting	Bi-Monthly	50
11	Orange County Registrar of Voters Early Voting Center	Depends on Election Frequency	TBD
	HOMEOWNER ASSOCIATION MEETINGS		
12	Community Associations of Rancho (CAR)	Monthly	45
13	Dove Canyon Master Association	Monthly	30
14	Rancho Cielo Community Association	Monthly	25
15	Rancho Santa Margarita Landscape and Recreation Corporation (SAMLARC)	Infrequent, but can be monthly	12
16	Robinson Ranch Homeowners Association	Monthly	45
17	Trabuco Highlands Community Association	Monthly	45
18	Walden Homeowners Association	Monthly	45
	NON-PROFIT GROUPS		
19	AYSO Region 630	Monthly	25
20	Rancho Trabuco Girls Softball	Monthly	35
21	Santa Margarita/Trabuco Hills Pop Warner	Monthly	35

^{*} Per the District's Board Room Use Policy, the Administration Facility is available for event rental and can host events year round.

Primary Election Voting Day Parking Survey

Location: Trabuco Canyon Water District - 32003 Dove Canyon Dr, Trabuco Canyon, CA 92679

March 3, 2020

								Pa	rkin	g Ut	tiliza	atio	n Da		,					
			T	CWD	SWD Shopping Center Parking (Voters to TCWD) Dove Canyon								yon Dr							
	Zones	1	l I	2	1-2	3	4	ļ	5	6	7	7	8	9	3-9	20	21	20-21	Overall	
	Туре	R	Н	R	Total	R	R	Н	R	R	R	Н	R	R	Total	WB	EB	Total	Total	Total Demand
	Avail. Spaces	12	2	16	30	5	7	1	14	19	10	1	42	30	129	~46	~56	102	261	(Zones 1-9)
	7:00	2	1	13	16	1	1	0	0	1	0	0	4	1	8	2	3	5	29	24
	7:30	3	1	13	17	1	0	0	0	1	0	0	4	1	7	9	14	23	47	24
	8:00	6	1	14	21	0	1	0	1	1	1	0	4	1	9	31	38	69	99	30
	8:30	7	1	15	23	0	2	0	1	1	1	0	5	1	11	41	48	89	123	34
	9:00	9	1	14	24	2	2	0	1	1	1	0	9	4	20	44	48	92	136	44
	9:30	5	1	17*	23	4	4	0	1	1	1	0	12	7	30	45	48	93	146	53
	10:00	9	1	14	24	3	4	0	0	0	1	0	13	6	27	43	48	91	142	51
	10:30	9	1	15	25	4	4	0	0	0	2	0	11	5	26	42	48	90	141	51
	11:00	7	1	15	23	3	4	0	0	1	1	0	11	5	25	43	48	91	139	48
	11:30	12	2	14	28	4	5	0	1	0	2	0	9	5	26	42	49	91	145	54
	12:00	10	2	14	26	4	5	1	4	1	2	0	9	5	31	42	50@	92	149	57
	12:30	7	2	14	23	4	4	0	0	1	1	0	8	3	21	42	48	90	134	44
a)	13:00	10	1	15*	26	1	2	0	0	1	1	0	7	2	14	42	48	90	130	40
Time	13:30	9	1	11	21	2	3	0	1	1	2	0	10	3	22	42	48	90	133	43
-	14:00	7	0	12	19	1	3	0	1	1	2	0	10	4	22	42	48	90	131	41
	14:30	8	1	12	21	3	4	0	2	4	3	0	10	4	30	42	49@	91	142	51
	15:00	10	1	14	25	4	3	0	4	3	5	0	8	4	31	18	20	38	94	56
	15:30	12	2	15*	29	4	3	1	4	4	6	0	11	6	39	17	17	34	102	68
	16:00	10	1	14*	25	4	4	1	5	2	6	0	13	7	42	15	16	31	98	67
	16:30	9	1	8*	18	3	2	0	4	2	4	0	10	6	31	11	17	28	77	49
	17:00	10	1	11*	22	4	4	1	4	2	4	0	15	4	38	5	9	14	74	60
	17:30	11	1	13*	25	3	4	1	4	2	3	0	13	6	36	4	5	9	70	61
	18:00	10	1	12*	23	4	4	0	6	4	4	0	13	6	41	1	5	6	70	64
	18:30	6	2	12*	20	2	4	0	3	4	3	1	6	5	28	1	3	4	52	48
	19:00	12	1	10*	23	3	2	0	4	4	2	0	10	4	29	1	3	4	56	52
	19:30	12	1	9*	22	2	2	0	4	3	1	0	9	6	27	1	3	4	53	49
	20:00	2	2	8*	12	1	0	0	4	2	0	0	6	4	17	0	2	2	31	29

Zones 20 and 21 were mainly comprised of students parking for Santa Margarita High School

R = Regular parking

^{*} Truck parked in no-parking zone.

H = Handicap Parking

[@] One vehicle was entirely in red curb area.

Presidential Election Voting Day Parking Survey

Location: Trabuco Canyon Water District - 32003 Dove Canyon Dr, Trabuco Canyon, CA 92679

Nov. 3, 2020

		Parking Utilization Data																	
		TC	CWD		Shopping Center Parking (Voters to TCWD)										Dove Canyon Dr			Overall	
Zones	1	L	2	1-2	3		4	5	6		7	8	9	3-9	20	21	20-21	Total	Total Demand
Туре	R	Н	R	Total	R	R	Н	R	R	R	Н	R	R	Total	WB	EB	Total		(Zones 1-9)
Avail. Spaces	12	2	16	30	5	7	1	14	19	10	1	42	30	129	~46	~56	102	261	
11:00	9	1	16	26										0	3	0	3	29	26
11:30	12	2	16	30				1				6	2	9	3	0	3	42	39
12:00	9	2	16	27				1				7	1	9	3	0	3	39	36
12:30	11	0	16	27	3	3		1				13	1	21	3	0	3	51	48
13:00	7	0	16	23	1							13	1	15	3	1	4	42	38
13:30	6	1	16	23	2	2		2		2		10	2	20	3	1	4	47	43
14:00	10	1	16	27	4	3		3				11	2	23	0	0	0	50	50
14:30	8	0	16	24	1	1		1		3		10	3	19	0	0	0	43	43
15:00	8	0	16	24										0	1	0	1	25	24
15:30	11	0	16	27	2					1		7	2	12	1	0	1	40	39
16:00	6	0	16	22	1	2		1		1		18	2	25	0	0	0	47	47
16:30	8	0	16	24		2						14	1	17	0	0	0	41	41
17:00	10	0	16	26		1						6	1	8	0	0	0	34	34
17:30	8	0	16	24		1	1					8	3	13	0	0	0	37	37
18:00	8	1	16	25		4		1				3	4	12	0	0	0	37	37
18:30	6	1	16	23	1	1						9	0	11	0	0	0	34	34
19:00	7	0	16	23	1	2						6	0	9	0	0	0	32	32
19:30	7	0	16	23	1	3						4	2	10	0	0	0	33	33
20:00	7	0	16	23								4	0	4	0	0	0	27	27

Zone 2 was taped off for workers at the TCWD. Assumed all spaces are needed for TCWD staff.

R = Regular parking

H = Handicap Parking

TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 2, 2020

ENGINEERING MATTERS

ITEM 3: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING PORTER PROPERTY RESERVOIR PLANNING LEVEL CONSTRUCTION COST ESTIMATE

Trabuco Canyon Water District (District) owns an approximately 120-acre property commonly known as the "Porter Property". In April 2002, the District purchased the property with a potential purpose of placement of District facilities, including onsite domestic water and non-domestic water reservoirs. At the September 2, 2020 Engineering/Operational Committee Meeting, the Committee recommended that District staff evaluate the feasibility of constructing a reservoir on the District's Porter Property and bring the matter back for Board consideration. District staff is working with Tetra Tech to prepare a planning level evaluation for an onsite reservoir on the District's Porter Property and is expecting the Draft Study to be completed in December 2020 (Exhibit 1).

More information may be presented at the time of the meeting.

FUNDING SOURCE:

General Fund and Developer Fees

FISCAL IMPACT:

\$131,091

ENVIRONMENTAL COMPLIANCE:

Not applicable

RECOMMENDED ACTION:

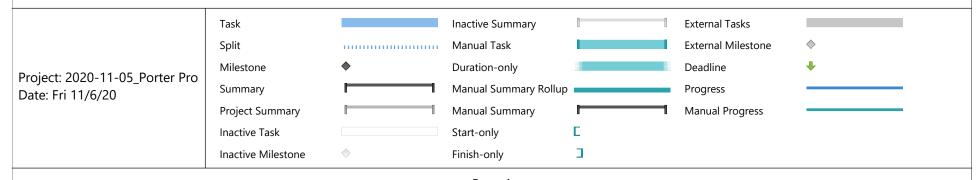
Committee to receive information at the time of the Committee Meeting.

EXHIBIT(S):

1. Porter Property Planning Level Study – Schedule

CONTACTS (staff responsible): PALUDI/LAUSTEN

Porter Property Domestic Water Planning Level Estimate ID Tasl Task Name Duration Start Finish Mod Dec '20 Nov '20 25 29 13 20 15 22 27 10/29 Project Kick-off Meeting 0 days Thu 10/29/20 Thu 10/29/20 1 ■ Draft Report 5 wks Thu 10/29/20 Wed 12/2/20 2 Thu 12/3/20 Wed 12/9/20 3 ■ District Review 1 wk Thu 12/10/20 Mon 12/21/20 Final Report 1.5 wks 4 12/21 Final Report Submittal Mon 12/21/20 Mon 5 0 days 12/21/20



TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 2, 2020

ENGINEERING MATTERS

ITEM 4: 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 original construction completion date was December 2020; however, submittals and equipment procurement have been significantly affected by shutdowns due to the coronavirus, pushing the completion date to May 2021 (Exhibit 1). The following is the budget for the project:

ITEM	BELL CANYON LIFT STATION REHABILITATION PROJECT TASK DESCRIPTION	BUDGET						
1	Construction – Ferreira Construction (Includes \$75,000 Allowance for Field Orders and \$75,000 Approved Contingency) \$1,5							
	Fence Revision	\$12,468.00						
	Wet Well Replacement							
	By-Pass Valve Relocation	\$5,369.67						
	Total	\$70,790.60						
2	2 Geotechnical Site Investigation, Vibration Monitoring, Video Survey, Additional Boring *\$17,300.00							
3	Engineering Design/Services During Construction – JIG Consultants	\$117,625.00						
4	Construction Management/Inspection-Butier	\$180,830.00						
5	Site Survey – DMc Engineering \$5,280.00							
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:	\$1,899,263.00						

^{*}Estimated

TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 2, 2020

FUNDING SOURCE:

Emergency Reserves

FISCAL IMPACT:

\$1,899,000.00 (FY19-20 & FY20-21)

ENVIRONMENTAL COMPLIANCE:

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

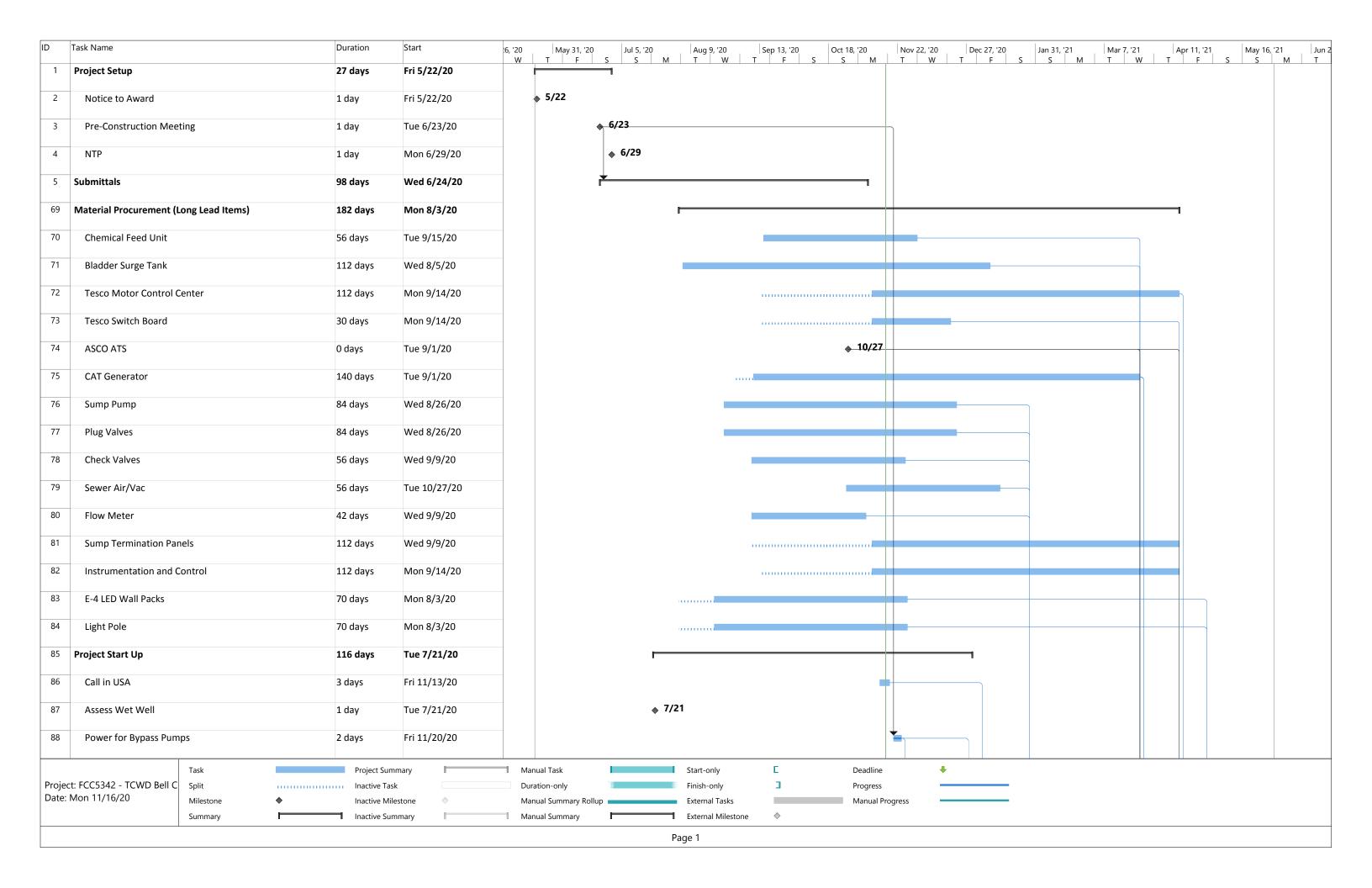
RECOMMENDED ACTION:

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

EXHIBIT(S):

1. Project Schedule-UPDATED

CONTACTS (staff responsible): PALUDI/LAUSTEN



)	Task Name	Duration	Start	.6, '20 W	May 31, '20 T F	Jul 5, '20 S S M	Aug 9, '20 T W	Sep 13, '20 T F S	Oct 18, '20 S M	Nov 22, '20 T W	Dec 27, '20	Jan 31, '21 S M	Mar 7, '21 T W	Apr 11, '21	May 16, '21 S S M	Jui T
89	TCWD Inspect and Release Panel	5 days	Tue 11/24/20	VV	I F	3 3 IVI	I VV	1 F S		1 VV	1 F S		I VV		3 3 M	
90	Setup Bypass, Install Temp Fence	2 days	Mon 12/28/20													
91	Project Demo and Installation	105 days	Mon 1/4/21													
92	Demo of Above Ground	2 days	Mon 1/4/21													
93	Surveying	1 day	Wed 1/6/21								<u> </u>					
4	Shoring, Footings and Wall	14 days	Thu 1/7/21													
5	Exc & Install Vault & Epoxy Well/Replace Wet Well	1 day	Wed 1/27/21									†				
6	Install Piping	5 days	Thu 1/28/21													
97	Trench for Electrical Conduits	2 days	Thu 2/4/21													
8	Site Underground Conduit System	21 days	Mon 2/8/21													
)	Level Transducer/Floats at Well, Cond. Inst at Vault	9 days	Thu 1/28/21													
00	Form & Pour Concrete Slabs	5 days	Tue 3/9/21													
	Install MCC, Sump Term. Panel, Switchboard, ATS	10 days	Wed 4/14/21													
)2	Install Wiring and Lighting	14 days	Wed 4/28/21													
03	Install Equipment and Tanks	1 day	Thu 3/25/21													
4	Conduit Connection at Generator	2 days	Fri 3/26/21										*			
)5	Ornamental Fence	3 days	Tue 3/30/21										ì			
)6	Asphalt Paving	1 day	Fri 4/2/21											 		
07	SCE Metering/Cable Install for Power to Switchboard	20 days	Wed 4/28/21											_		
)8	Remove Bypass & Testing	2 days	Tue 3/30/21										ì			
)9	Concrete Restoration	3 days	Mon 4/5/21											1		
10	Substantial Completion	1 day	Wed 5/26/21												5/26	
11	Punch List	2 days	Thu 5/27/21													
12	Project Complete	1 day	Mon 5/31/21												+	
	Task	Project Su	ımmary 🏻 🖟	∥ Ma	nual Task		Start-only	E	Deadline	+						
	ct: FCC5342 - TCWD Bell C Split	Inactive T	ask		ration-only		Finish-only	3	Progress							
ate:	Mon 11/16/20	Inactive M			nual Summary Rollup		External Tasks		Manual P	rogress						
	Summary	Inactive S	ummary	Ma	nual Summary		External Milestone	♦								
						P	age 2									

TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 2, 2020

ENGINEERING MATTERS

ITEM 5: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING TRABUCO CANYON WATER DISTRICT'S SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM UPGRADE PROJECT

The District's Supervisory Control and Data Acquisition (SCADA) System is a critical system used for the daily operation and monitoring of facilities in the water, wastewater, and recycled water systems. The SCADA system includes alarms, remote monitoring and controls, and data logging of the District's various facilities including the water and wastewater treatment plants, pump stations, sewage lift stations, and reservoirs. The SCADA system consists of various telemetry, programmable logic computers, PCs, radios, controllers, and antennas of various heights and types. The SCADA system continuously monitors the District's facilities and reports alarm conditions to the operators on a twenty-four hour per day basis every day.

At times, the SCADA system requires complex programming of different software, some of which is outdated and not supported by the original software developer. In addition, the programming and applications are custom to water and wastewater systems and an understanding of operations is necessary when working on the SCADA system. In addition, the District's geography, varying elevations, and remote facilities require the use of different methods of communicating within the SCADA system, including low and ultra-frequency radios, licensed and unlicensed frequencies, and the internet. Over the past 25 years or more, the SCADA system has undergone upgrades and replacement of components with several no longer supported or available for replacement. The maintenance of the SCADA system is performed by one of the District's Mechanical Technologists with assistance from both Beavens Systems and TESCO Controls, Inc.

Staff has implemented a phased approach to update the District's SCADA System, as summarized below:

- 1. Phase 1 SCADA System Assessment Study (Completed December 2017).
- 2. Phase 2 Wide Area Network Improvements and Hardware Replacement (Completed January 2019).
- 3. Phase 3 Radio Frequency system Analysis and Field Study (Exhibit 1), Software Platform Evaluation and Selection and Purchasing of the Remote PLC Hardware (Completed June 2020).
- 4. Phase 4 (Exhibit 3):
 - a. Consolidation of the existing SCADA platforms (Intellution FIX and Wonderware) into a single Wonderware InTouch application
 - b. Upgrade of the existing main control panel PLC and HMI at the Trabuco Creek Groundwater Treatment Facility (TCGWTF)
 - c. Implementation of a high-speed radio backbone network throughout the water/wastewater system

FUNDING SOURCE:

General Fund

FISCAL IMPACT (PROJECT BUDGET):

Phase 1: \$45,000 Phase 2: \$200,000 Phase 3: \$400,000 Phase 4: \$600,000

COSTS TO DATE

Phase 1: \$ 44,777 - Study (TESCO/Beavens)

Phase 2: \$ 182,520 - WAN Improvements/Hardware/Licensing/Programming/Virtualization (TESCO/Beavens)
Phase 3: \$ 386,840 - Radio Frequency Study, Software Evaluation and Purchase of Remote Site PLC's (TESCO)

TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 2, 2020

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption

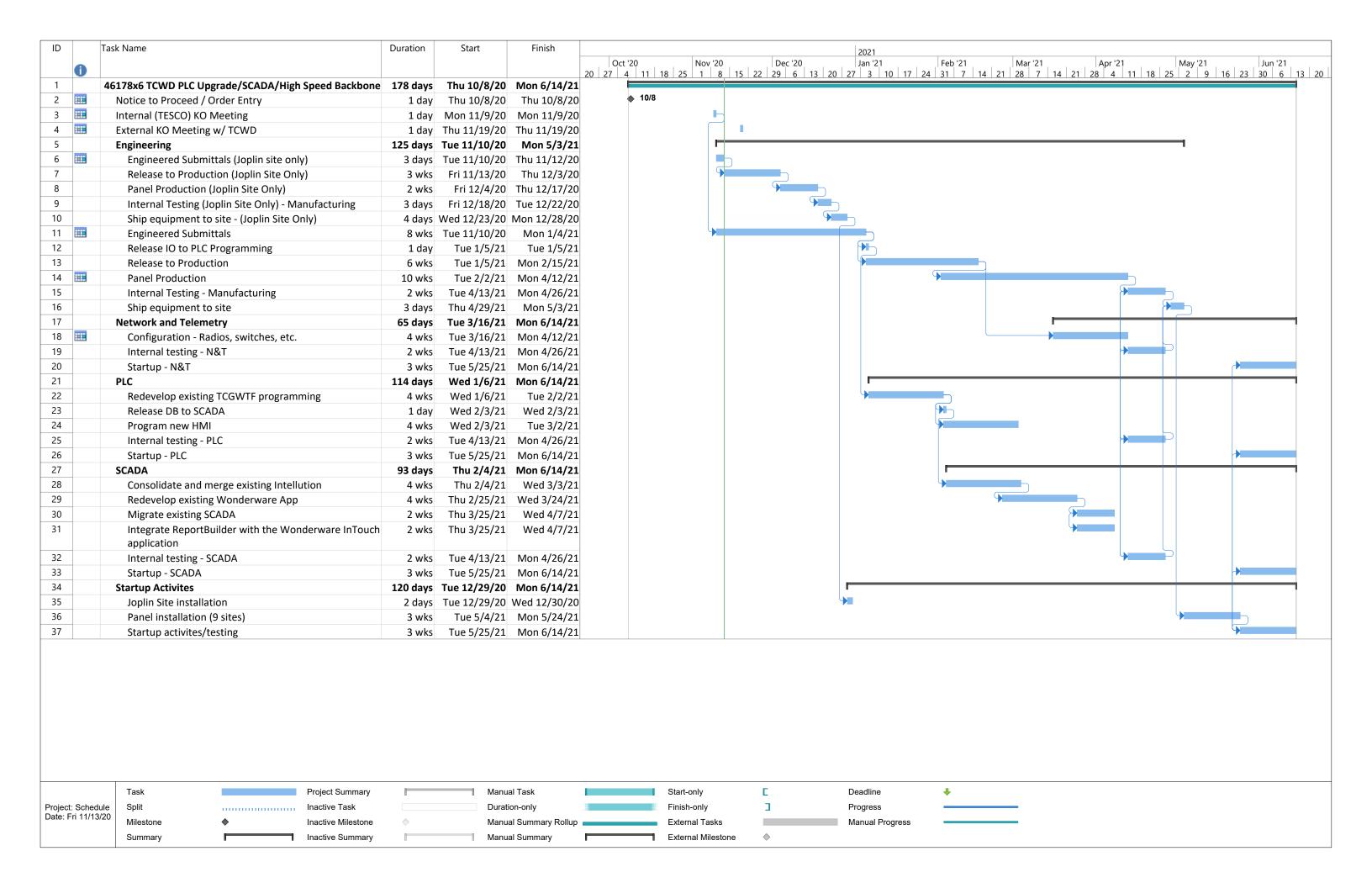
RECOMMENDED ACTION:

Committee to receive information at the time of the Committee Meeting

EXHIBIT(S):

- 1. FY20-21 SCADA Upgrade Schedule
- 2. Summary of Antenna Heights
- 3. High Speed Backbone System
- 4. Joplin Repeater Upgrade

CONTACTS (staff responsible): PALUDI/LAUSTEN



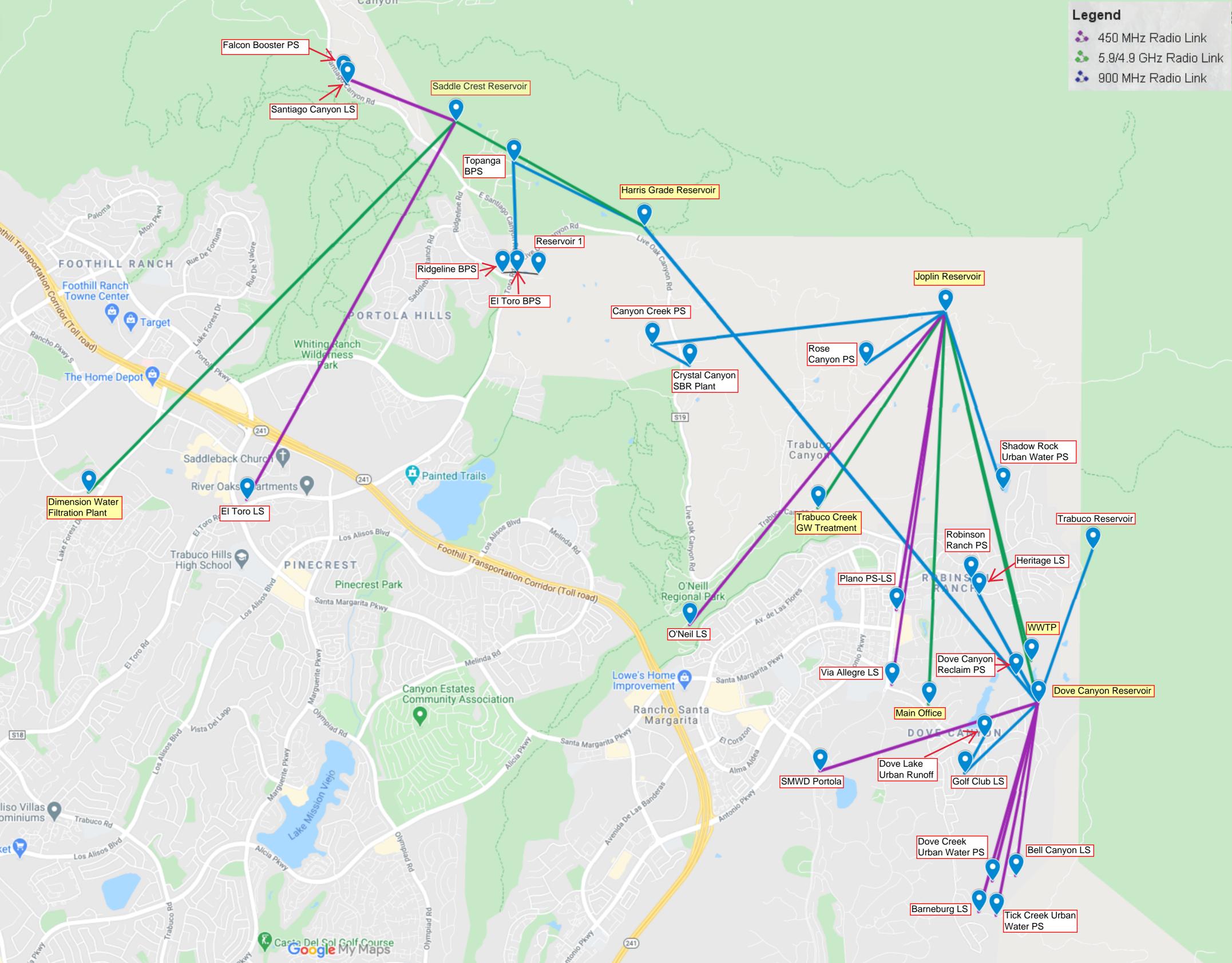
SCADA Upgrades-Antenna Heights

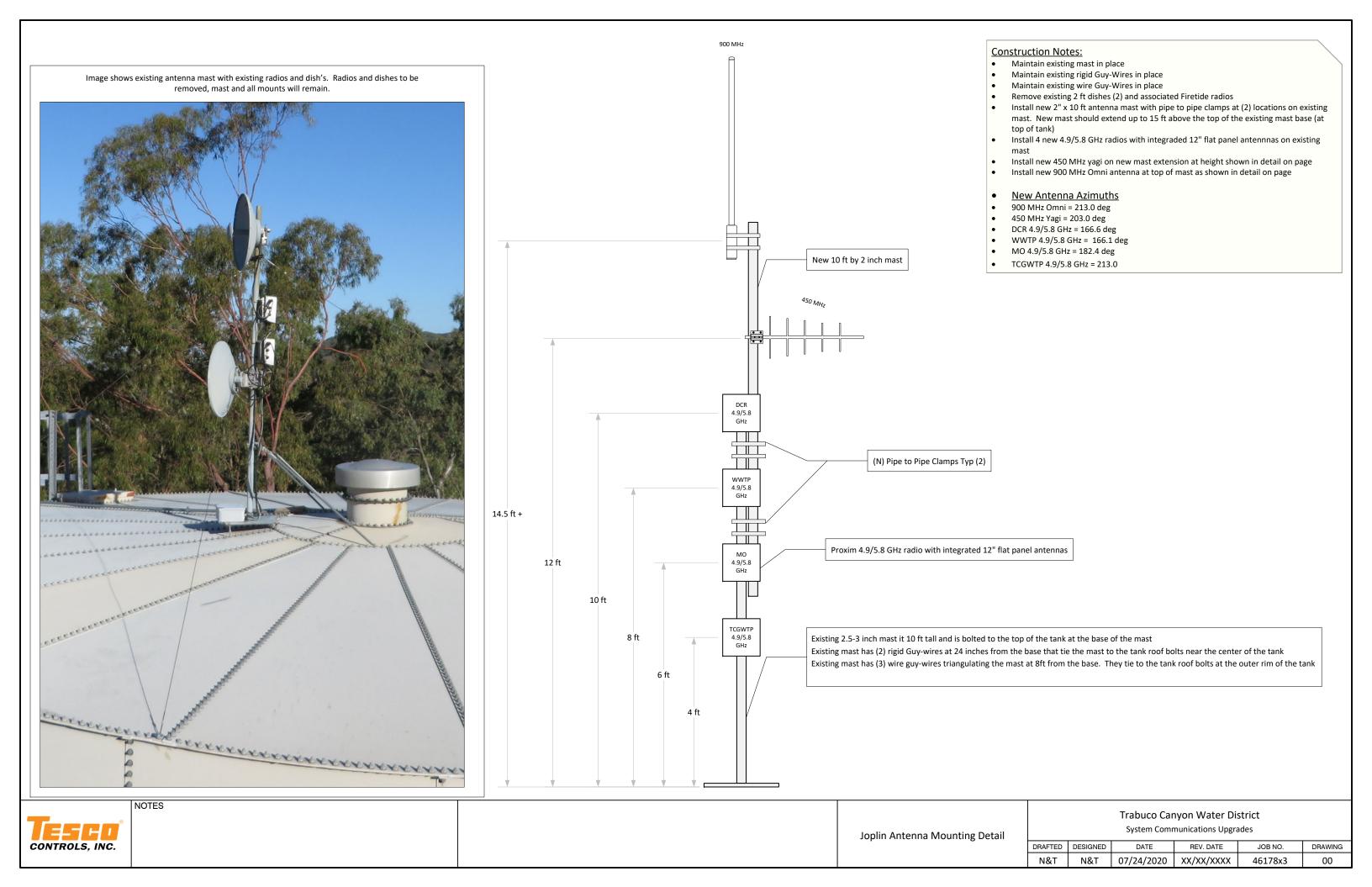
Site	Existing (ft*)	Recommend (ft*)	Change (ft**)
Barneburg Lift Station	20	20	0
Bell Canyon Lift Station	22	25	3
Canyon Creek PS	10	15	5
Crystal Canyon SBR Plant	10	15	5
Dimension Water Filtration Plant	55	55	0
Dove/Robinson Ranch Reclaim PS	10	15	5
Dove Canyon Reservoir	5	10	5
Dove Creek Urban Water PS	20	20	0
Dove Lake Urban Runoff	10	10	0
El Toro PS	40	40	0
El Toro Lift Station	15	15	0
Falcon Booster PS	18	18	0
Golf Club Lift Station	20	20	0
Harris Grade Reservoir	5	10	5
Heritage Lift Station	20	20	0
Joplin Reservoir	10	15	5
Main Office	20	20	0
O'Neil Lift Station	20	20	0
Plano PS-LS	20	20	0
Reservoir 1	10	10	0
Ridgeline PS	15	15	0
Robinson Ranch PS	10	15	5
Rose Canyon Ps	5	5	0
Saddle Crest Res	10	10	0
Santiago Canyon Lift Station	0	5	5
Shadow Rock Urban Water PS	15	15	0
Tick Creek Urban Water PS	20	20	0
Topanga BPS	20	25	5
Trabuco Creek Groundwater Treatment Facility	10	10	0
Trabuco Reservoir	10	10	0
Via Allegre Lift Station	20	20	0
Waste Water Treatment Plant	15	15	0

Notes

^{*}Antenna heights at reservoirs are from TOP of the tank, NOT AGL. Other sites are from existing location

^{**}Site Antennas to increase in height





TRABUCO CANYON WATER DISTRICT ENGINEERING/OPERATIONAL COMMITTEE MEETING | DECEMBER 2, 2020

ENGINEERING MATTERS

ITEM 6: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING THE PROPOSED BARNEBURG SEWER LIFT STATION DRY PIT PIPING REPAIRS AND INSTALLATION

Trabuco Canyon Water District (District) owns and operates Barneburg Sewer Lift Station in the Dove Canyon community, and the facility collects wastewater flows from lower portion of the community then delivers flow to the Golf Club Sewer Lift Station. The station has undergone minor repairs, including pump replacement, within the last five to six years, but Wastewater Operations and Maintenance staff have identified specific necessary repairs to certain equipment in the station dry pit and recommend undertaking the repairs urgently to reduce the risk of station failure. The repairs include:

- Removal and Replacement of Plug, Check, and Gate Valve
- Removal and Replacement of Air Release Valves
- Removal and Replacement of Dry Pit Piping
- Removal, Inspection and Re-Installation of Surge Tank (New Surge Tank if Needed)
- Replacement and Painting of Existing Hardware, Fittings, and Supports

District staff requested proposals from the following contractors:

CONTRACTOR
Ferreira Construction
GCI Construction
SS Mechanical Corporation

More information may be presented at the time of the meeting.

FUNDING SOURCE:

General Fund

FISCAL IMPACT:

TBD

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption

RECOMMENDED ACTION:

Committee to receive information at the time of the Committee Meeting

EXHIBIT(S):

1. Project Location and Photos

CONTACTS (staff responsible): PALUDI/STROUD/PEREA/LAUSTEN

Project Location





LOCATION MAP	Barneburg Sewer Lift Station
Area of Work	Address: 46 Barneburg Dr., Trabuco Canyon, CA 92679

Barneburg Dry Pit Rehabilitation



Barneburg Dry Pit Rehabilitation



Barneburg Dry Pit Rehabilitation



Barneburg Dry Pit Rehabilitation



ENGINEERING MATTERS

ITEM 7: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING THE DIMENSION WATER TREATMENT PLANT WASTE TANKS AND BACKWASH SUMP PUMP REPLACEMENT

Trabuco Canyon Water District (District) owns, operates, and maintains the Dimension Water Treatment Plant (WTP) in the City of Lake Forest. This plant receives untreated imported water from Metropolitan Water District (MWD), via the Baker Pipeline, and produces the majority of the water distributed to the Districts customers. Within the WTP, is the backwash sump pump which houses two pumps (10hp and 40hp) that transfer the backwash filter wastewater to two bolted steel waste settling tanks. Theses tanks hold the backwash and flush water and release it to the sewer system at approximately 250 gpm.

The two waste tanks are 44,000 gallons and the newest tank was constructed in 1987. The tanks are in poor condition due to severe corrosion and need replacement. Staff is procuring quotes for tank replacements.

The 10hp pump is not in service and is currently being repaired by Flo-Services; however, the repair is not a long-term solution and staff has procured two quotes for the pump replacement.

BID SUMMARY										
CONTRACTOR	COST	LEAD TEIME								
Flo-Services, Inc.	\$43,378.39	24 weeks								
Tekdraulics	\$39,003.51	20 weeks								

More information may be presented at the time of the meeting.

FUNDING SOURCE:

General Fund

FISCAL IMPACT (PROJECT BUDGET):

Tanks: \$150,000 Pumps: \$100,000

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption

RECOMMENDED ACTION:

Committee to receive information at the time of the Committee Meeting

EXHIBIT(S):

1. Project Photos

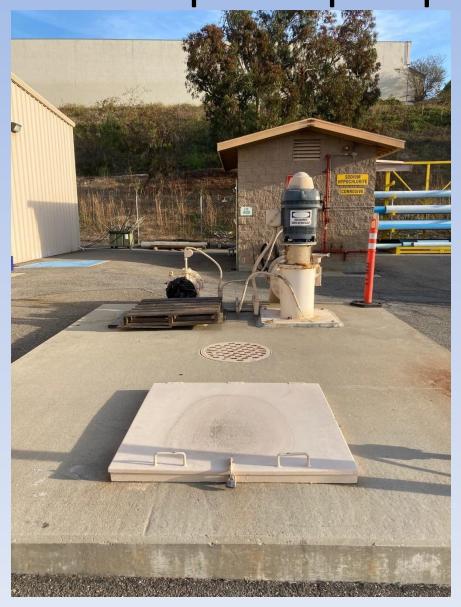
CONTACTS (staff responsible): PALUDI/LAUSTEN











ENGINEERING MATTERS

ITEM 8: DISCUSSION AND POSSIBLE ACTION(S) CONCERNING THE OAKS AT TRABUCO, LLC ENGINEERING STUDY

The Oaks at Trabuco (Development and Developer) is a nine-lot residential development project within Trabuco Canyon Water District (District) service area and unincorporated County of Orange. The Development has been considerably delayed from its original expectations in the early 2000s. Today, two of the nine lots have homes constructed and occupied, and a third is anticipated to be completed in early 2021.

The District accepted the Development's water facilities in 2003. The On-site sewer facilities include the sewer collection system and the package wastewater treatment facility (Plant). The Plant was constructed in 2006 but has not been operated and may require some investments to begin operations, District staff has been directed to complete an Engineering Study to evaluate the condition of the Plant, prepare recommendations and a cost estimate to upgrade the Plant, and develop the cost for yearly operation and maintenance of the Plant.

Staff is preparing a Request for Proposals (RFP) which will include the following scope:

- Alternate analysis to sewer development to O'Neill Park
- Development of yearly operation and maintenance costs of the Plant
- Field condition assessment of the Plant components
- Determine the remaining useful life analysis (10-years) of the Plant
- Rehabilitation and Rehabilitation (R&R) requirements of the Plant
- Condition Assessment Technical Memorandum

FUNDING SOURCE:

General Fund

FISCAL IMPACT:

TBD

ENVIRONMENTAL COMPLIANCE:

All environmental compliance is to be met by the Developer

RECOMMENDED ACTION:

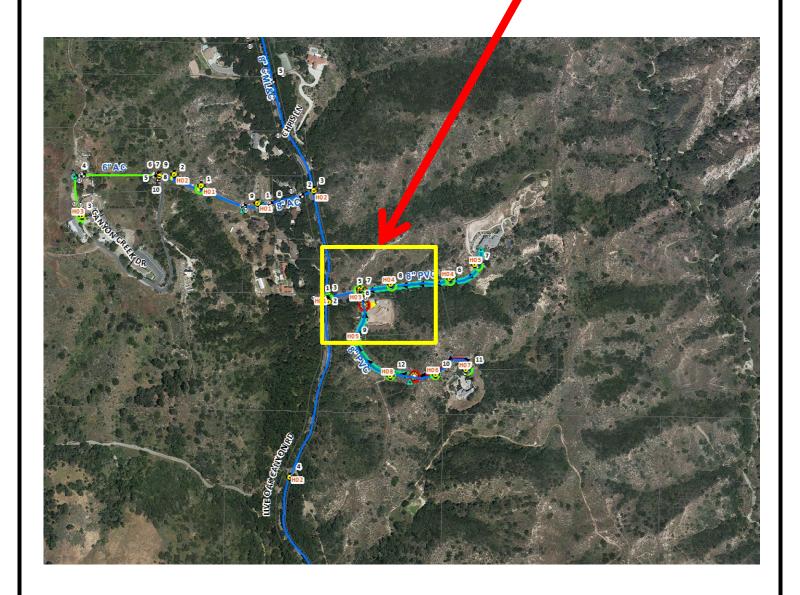
Committee to receive information at the time of the Committee Meeting

EXHIBIT(S):

Location Map

CONTACTS (staff responsible): PALUDI/LAUSTEN

Project Location





LOCATION MAP	Oaks at Trabuco
Area of Work	Wastewater Treatment Facility

ENGINEERING MATTERS

ITEM 9: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

- 1. Saddle Crest Development
- 2. Heritage Lift Station Site and Security Improvements
- 3. Asset Management/Condition Assessment Study
- 4. Silvertree Lane Pipeline Replacement
- 5. Trabuco Creek Bridge Replacement
- 6. Other Projects

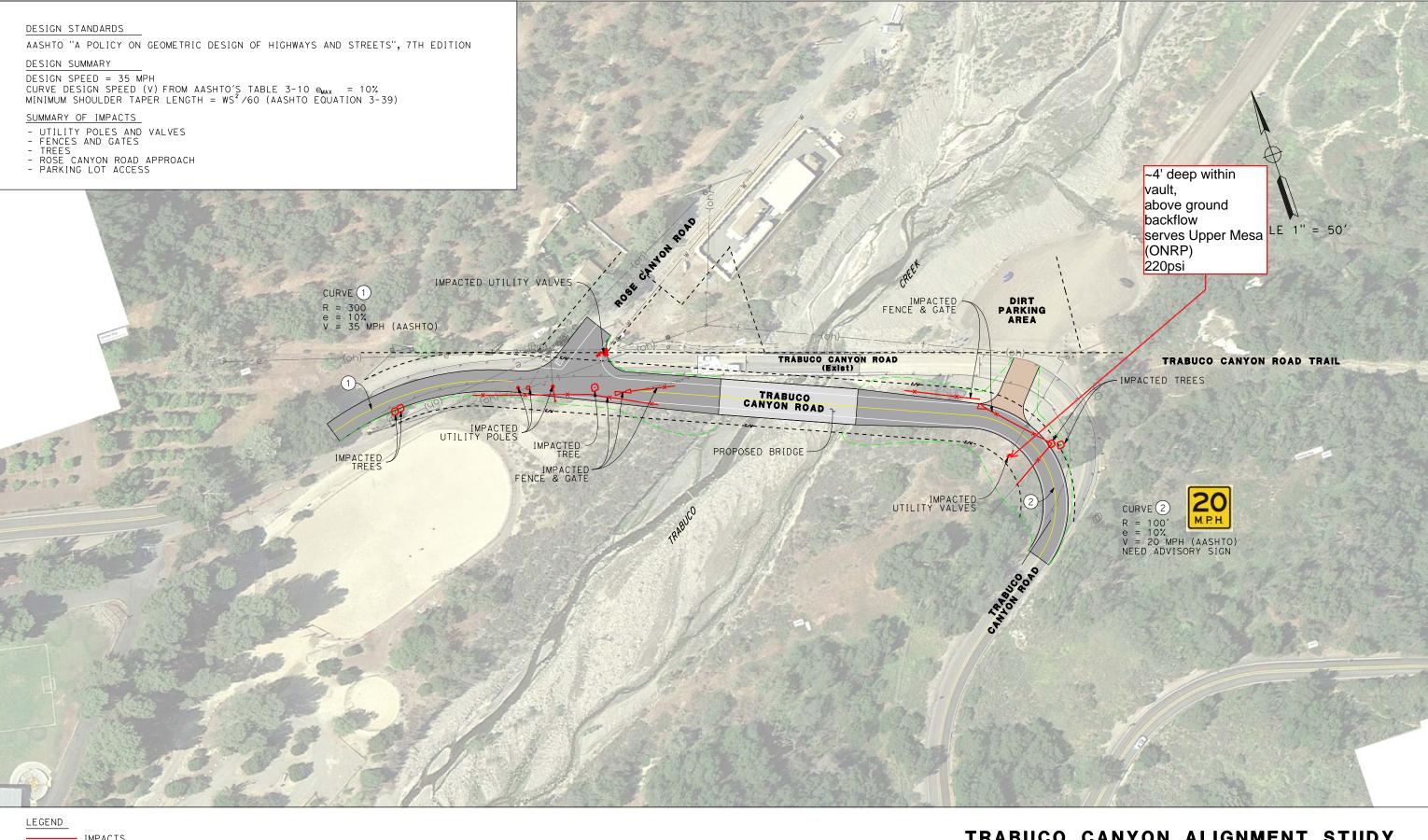
RECOMMENDED ACTION:

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

EXHIBIT(S):

1. Trabuco Creek Bridge Alternative 1

CONTACTS (staff responsible): PALUDI/PEREA/LAUSTEN



— IMPACTS

---- EXISTING R/W

---- APPROXIMATE DAYLIGHT LINE

TRABUCO CANYON ALIGNMENT STUDY ALTERNATIVE 1 DESIGN AND IMPACTS

DATE: August 7, 2020

OPERATIONAL MATTERS

ITEM 10: WATER SYSTEM UPDATES

The following is a brief report of the water system for November 2020.

Projects and Repairs

- 1. Water Operations staff worked with contractor, Southwest Hydrotech and serviced 5 PRV's throughout the District service area.
- 2. Water Operations staff flushed 19 fire hydrants in the Sky Ridge Community (this completes flushing for this cycle).
- 3. Water Operations staff repaired a struck air vac on Wood Canyon located in the Santiago Estates Community (again).
- 4. Water Operations staff worked with contractor, Ferreira Construction to finish the installation of new water main on Silvertree Lane.

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

2020													
DIMENSION WTP													
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEP	ОСТ	NOV	DEC	TOTAL
SAC METER AC/FT	152	166	128	68	147	13	Offline	199	264				1,137
BACKWASH AC/FT	5	4	4.0	3	5	1	0	3	5	5			35
FLUSHWATER AC/FT	9	9	9.0	5	9	2	0	9	10	8			70
WTP EFFLUENT AC/FT	153	168	128	68	151	10	0	199	268	252			1,397
Wells													, , , , , ,
TRABUCO CREEK GWTF	0	0	0	68	81	58	59	25	0	0		1	291
US WELL AC/FT	0	0	0	0	0	0	0	0	0	0			0
AMP WATER					·							_	•
SMWD AC/FT	0	0	0	0	0	36	10	4	0	0		1	50
IRWD AC/FT	0	0	0	0	0	111	122	24	0	0			257
TOTAL SUPPLY												_	
AC/FT	153	168	128	136	232	197	191	252	268	252			1,977
CFS DAILY AVERAGE	2.4	2.9	2.1	2.3	3.8	3.3	3.1	4.0	4.5	4.1			3.2
AC/FT PER DAY	4.9	5.8	4.1	4.5	7.5	6.6	6.2	8.1	8.9	8.1			6.5
OPERATIONS in GAL.			<u> </u>		<u> </u>			-			<u> </u>	<u> </u>	
WTP DOMESTIC	28,424	26,778	32,688	18,700	37,176	3,740	75	59,242	45,254	43,758	I	I	295,835
WWTP DOM	6,000	20,570	14,630	11,110	27,170	22,800	23,430	17,710	16,170	15,070			174,660
OPERATIONS (AF)		,		,		,	,	,		,			
SUPPLEMENT TO RW	0	0	0	0	0	0	0	0	0	0			0
LOSSES in GAL.	•	•	•		•	<u>. </u>	•		•	•		•	
FLUSHING (gal.)	144,000	468,000	0	0	0	0	384,000	198,000	210,000	186,000			1,590,000
SEWER CLEANING (gal.)	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000			50,000
LINE BREAKS (gal.)	1,000	350,000	350,000	30,000	5,000	1,000	0	1,000	350,000	0			1,088,000
SYSTEM DEMAND **				·		<u> </u>					<u> </u>		
CFS DAILY AVERAGE	2.4	2.9	2.0	2.2	3.7	3.3	3.1	4.0	4.5	4.1			3.2
AC/FT PER DAY	4.9	5.7	4.1	4.5	7.4	6.6	6.2	8.1	9.0	8.1			6.5
RESERVOIR STORAGE													
MONTHLY AVG (MG)	8.8	8.6	8.8	8.9	8.6	8.8	8.5	8.2	8.8	8.7			9
DAYS OF STORAGE	4	3	4	4	3	4	3	3	4	4			4
ZONES (AF)						•					•	•	
RIDGELINE PS	Offline	Offline	Offline	Offline	20	10	122	199	252	237			840
EL TORO P.S.	153	168	128	68	131	111	122	24	0	0			905
TOPANGA	3	2	2	1	3	3	4	4	4	3			29
FALCON	0.5	0.6	0.2	0.2	0.7	0.7	0.8	0.8	0.8	0.6			6
ROSE PRV/ OAKS	3	3	3	5	6	6	7	7	6	6			52
CANYON CREEK	0.2	0.3	0.2	0.2	0.3	0.4	0.4	0.6	0.6	0.4			4
ROSE P.S.	0.2	0.1	1.5	0.3	1.5	0.8	0.8	1.4	0.9	0.8			8
ROBINSON RANCH	26	30	19	24	49	47	56	73	81	72			477
DOVE CANYON	60	63	51	39	87	91	97	99	90	90			767
PORTOLA HILLS	8	11	9	8	11	13	16	15	16	15			122
* Usage estimated new me	ter installed				** Excludes (Operational u	se, losses, and	d supplement	to Recycled \	Water Reserv	oir (RW)		

OPERATIONAL MATTERS

ITEM 11: WASTEWATER SYSTEM UPDATES

The following is a brief report of the wastewater system for **November 2020.**

Projects and Repairs

- 1. Wastewater Operations staff worked with Maintenance Department staff to replace the failed West Sequencing Batch Reactor (SBR) Hoffman Blower.
- 2. Wastewater Operations staff modified/upgraded the Duckweed Barrier System to improve the aesthetic appearances of Dove Lake.
- 3. Wastewater Operations staff worked with Maintenance Department to assist Duthie Power Services on repairs to the WWTP Backup Power Generator.
- 4. Wastewater Operations staff responded to a possible sewer odor issues in the Portola Hills Service Area; Operations cleaned the sewer line and found no issues.

Sewer System Management Plan (SSMP) Report

- 1. *SSMP Communication Program*: 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 Cleaned 6,482 feet of gravity sewer line
- Satellite and Contract Facilities:
 - o The Oaks at Trabuco Wet Well was pumped out **9** times.
 - O'Neill Park Sewer System (Gravity Sewer, Lift Station, and Force Main)
 - Status: Ok | Repairs: None
- Sewer System Quarterly Report:
 - Next Scheduled Report January 2021
- 2. *SSMP Program Audits*: 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:
- Next scheduled Report Due: January 2021

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 - 2020

RECYCLED WATER SUPPLY															EN/E
	MAX	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEP	ОСТ	NOV	DEC	TOTAL	FIVE YEAR AVG
WWTP Reclaimed Water Production, AF	78.3	50.4	45.4	38.4	35.7	58.6	50.7	51.0	50.5	41.9	49.1			471.7	550.04
Reclaimed Reservoir Level, FT	1274.5	1,270.5	1,272.0	1,274.1	1,270.8	1,266.5	1,269.5	1,267.0	1,266.5	1,260.0	1,250.5			-	-
Reclaimed Reservoir Free Board, FT	25.5	4.0	2.5	0.4	3.7	8.0	5.0	7.5	8.0	14.5	24.0			-	-
Reclaimed Reservoir Storage, AF	145.5	122.8	128.6	139.9	125.2	99.6	117.4	102.7	99.6	69.6	37.1			-	-
Supplemental Domestic Water Added, AF	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	72.88
RECYCLED WATER SYSTEM DEMAND															
NON DOMESTIC WATER USER	ALLOC, AF	8%	17%	25%	33%	42%	50%	58%	67%	75%	83%	92%	100%	TOTAL	ALLOC. %
NON DOMESTIC WATER COER	ALLOO. AI	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
Dahlia Court	8.2	0.3	0.3	0.1	0.3	0.6	0.3	0.3	0.2	0.2	0.2			2.9	35%
Dove Canyon Golf Course	106.7	3.8	10.4	2.5	9.4	40.5	36.7	55.6	42.6	39.1	31.6			272.2	255%
Dove Canyon Master Association	279.3	3.6	7.2	2.5	4.7	23.3	21.1	27.4	24.5	29.4	20.5			164.3	59%
Robinson Ranch	80.2	0.4	1.5	0.4	0.7	3.1	3.0	4.5	3.8	4.7	3.1			25.2	31%
Trabuco Highlands	159.7	1.7	4.0	1.5	1.8	10.0	8.6	11.6	9.0	9.5	9.6			67.3	42%
City of RSM	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.0			0.0	20%
Construction Water	N/A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	N/A
Sakaida Nursery	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0%
SMWD	N/A	18.3	3.2	16.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0			37.9	N/A
TY Nursery	17.9	0.0	0.0	0.0	0.0	0.0	5.3	12.0	0.0	0.0	0.0			17.3	97%
TOTAL, AF	653.2	28.1	26.7	23.4	16.9	77.5	75.0	111.5	80.1	83.0	65.1			587.2	90%
PERCENTAGE OF NDW ALLOCATION/YI	EAR	4%	8%	12%	15%	26%	38%	55%	67%	80%	90%				
TOTAL ANNUAL AVG. NDW AVAILABLE	** 774.36														
URBAN RUNOFF CAPTURE AND REUSE	=														
DISTRICT FACILITY		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ост	NOV	DEC	TOTAL	FIVE YEAR AVG
Shadow Rock Detention Basin Production		0.0	0.0	0.0	0.0	0.0	1.6	1.2	1.1	0.9	0.6	1	ì	5.4	21.2
Dove Tick Creek Production*	Dry Season	0.0	0.0	0.0	0.0	0.0	1.9	5.1	3.0	6.3	0.07			16.3	102.7
22.0 2.22	TCWD Portion	0.0	0.0	0.0	0.0	0.0	1.0	2.5	1.5	3.2	0.03			8.2	-
	SMWD Portion	0.0	0.0	0.0	0.0	0.0	1.0	2.5	1.5	3.2	0.03		Ì	8.2	_
Dove Lake Water Pumped		0.0	0.0	0.0	0.0	0.0	49.7	49.7	49.7	14.9	0.0			164.0	201.7
Dove Lake Free Board. Ft		0.0	0.0	0.0	0.0	0.0	3.0	5.0	8.5	9.0	9.5			-	-
D		0.0	 	 	U.U	 		<u> </u>	<u> </u>	 	 	 	 	+	+

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

Dove Lake Storage

Total Rainfall, In.

180.0

180.0

0.2

180.0

3.4

180.0

4.9

180.0

0.0

160.0

0.0

147.0

0.0

88.0

0.0

79.0

0.0

79.0

0.0

14.5

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

OPERATIONAL MATTERS

ITEM 12: MAINTENANCE DEPARTMENT UPDATES

The following is a brief report of the wastewater system for **November 2020.**

Projects and Repairs

- 1. Maintenance Department staff assisted Harbor Pointe Air Control with the Air Condition project inside the blower room at the Wastewater Treatment Plant.
- 2. Maintenance Department staff office remodel partially complete.
- 3. Maintenance Department staff assisted Duthie Power Services with the standby generator repairs done at the Topanga Booster pump station, Barneburg Sewer lift station, and Wastewater Treatment Plant.
- 4. Maintenance Department staff assisted Hydrotech Electric with the electrical repairs noted from the EMASS Program

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

None

CONTACTS (staff responsible): PALUDI/STROUD

REGULATORY AND OTHER MATTERS ITEM 13: 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