

ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA TRABUCO CANYON WATER DISTRICT

ADMINISTRATION FACILITY 32003 DOVE CANYON DRIVE, TRABUCO CANYON, CA MAY 3, 2023 AT 7:00 AM

COMMITTEE MEMBERS

Michael Safranski, 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 Oscar Ulloa, Wastewater Superintendent Jason Stroud, Maintenance Superintendent

AGENDA NOTE:

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

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

CALL MEETING TO ORDER

VISITOR PARTICIPATION

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

ORAL COMMUNICATION

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

COMMITTEE MEMBER COMMENTS

REPORT FROM THE GENERAL MANAGER

ENGINEERING MATTERS

PRESENTER(S): FERNANDO PALUDI, GENERAL MANAGER
MICHAEL PEREA, ASSISTANT GENERAL MANAGER

LORRIE LAUSTEN, DISTRICT ENGINEER

ITEM 1: ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP

RECOMMENDED ACTION:

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

1. April 5, 2023

ITEM 2: TRABUCO CANYON WATER DISTRICT FISCAL YEAR 2023-24 CAPITAL IMPROVEMENT PROGRAM BUDGET

RECOMMENDED ACTION:

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

ITEM 3: DEPARTMENT OF WATER RESOURCES EMERGENCY ACTION PLAN AND INUNDATION MAP DEVELOPMENT – DOVE AND TRABUCO DAMS

RECOMMENDED ACTION:

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

ITEM 4: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

- 1. Golf Club Sewer Lift Station Improvements
- 2. Oaks at Trabuco Development
- 3. Dove Center Update
- 4. Rose and Lang Wells Groundwater Treatment Facility Fence Project
- 5. Other Projects

RECOMMENDED ACTION:

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

OPERATIONAL MATTERS

PRESENTER(S): GARY KESSLER, WATER SYSTEM SUPERINTENDENT

OSCAR ULLOA, WASTEWATER OPERATIONS SUPERINTENDENT JASON STROUD, MAINTENANCE DEPARTMENT SUPERINTENDENT

ITEM 5: WATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.



ITEM 6: WASTEWATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

ITEM 7: MAINTENANCE DEPARTMENT UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

REGULATORY AND OTHER MATTERS

ITEM 8: OTHER MATTERS/REPORTS

RECOMMENDED ACTION:

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

ADJOURNMENT

AVAILABILITY OF AGENDA MATERIALS

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

COMPLIANCE WITH THE REQUIREMENTS OF CALIFORNIA GOVERNMENT CODE SECTION 54954.2

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



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 5, 2023 Committee Meeting

CONTACTS (staff responsible): PALUDI/PEREA/SANGI



DIRECTORS PRESENT

Mike Safranski, Committee Chair Stephen Dopudja, Committee Member

STAFF PRESENT

Fernando Paludi, General Manager Michael Perea, Assistant General Manager Lorrie Lausten, District Engineer Karen Warner, Principal Accountant Gary Kessler, Water Superintendent Oscar Ulloa, Wastewater Superintendent Phil Serpas, CMMS Administrator Lisa Sangi, Executive Assistant

PUBLIC PRESENT

Tori Yokoyama, Hazen and Sawyer

CONSULTANT VIA CONFERENCE CALL

Scott Arends, Hazen and Sawyer

CALL MEETING TO ORDER

Director Safranski called the April 5, 2023 Engineering/Operational Committee Meeting to order at 7:00 a.m.

VISITOR PARTICIPATION

No comments were received.

ORAL COMMUNICATION

No comments were received.

COMMITTEE MEMBER COMMENTS

No comments were received.

REPORT FROM THE GENERAL MANAGER

Mr. Paludi reported the District's Trabuco Creek Groundwater Treatment Facility is currently providing treated groundwater at approximately 600 gpm.

ITEM 1: ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP

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

MOTION: Approve the Engineering/Operational Committee Meeting Recap and recommended that the

Board receive and file the same (Consent Calendar) - Director Dopudja

SECOND: Director Safranski

AYES: Directors Dopudja & Safranski

NOES: None ABSTAIN: None

MOTION PASSED/FAILED: Passed 2 – 0

ITEM 2: DOVE DAM OUTLET REPAIR ALTERNATIVES EVALUATION

Mr. Paludi presented this matter for Committee review, and he provided a brief review of the previous repairs to the Dove Dam Outlet Structure (facility). Mr. Paludi reported that District staff contracted with Hazen to perform an evaluation of proposed alternative solutions to the facility. Mr. Arends delivered a PowerPoint presentation to the Committee which provided an overview of the evaluation of alternative repair scenarios. Discussion occurred concerning certain proposed repair options and related costs. Director Dopudja suggested District staff consider a design-build solution for this project. Discussion occurred concerning certain proposed solutions for displacement of captured water to perform the repairs and the preferred recommended repair alternative. Mr. Paludi commented that this capital improvement project is included in the proposed rate model, and that District staff will evaluate any potential grant funding opportunities to assist with this project.

MOTION: The Committee recommended forwarding this matter to the Board for informational purposes.

ITEM 3: DIMENSION WATER TREATMENT PLANT OFFICE IMPROVEMENTS

Ms. Lausten provided an update on this project, and she mentioned that the District received two proposals that were both close in price. Mr. Paludi commented on the separate site work would be done by District staff. Ms. Lausten highlighted the proposed construction plans, and she indicated the value engineered changes to the original project. Discussion occurred concerning forwarding this matter to the Board of Directors for discussion without a recommendation from the Committee.

MOTION: The Committee recommended forwarding this matter for Board discussion only (Action Calendar).

SECOND: Director Dopudja

AYES: Directors Dopudja & Safranski

NOES: None ABSTAIN: None

MOTION PASSED/FAILED: Passed 2 - 0

ITEM 4: GOLF CLUB SEWER LIFT STATION PROPOSED PROJECT BYPASS SOLUTION

Mr. Paludi presented this matter for Committee review, and he reported that the District previously withdrew the initial bid plans for this project to evaluate the proposed bypass solution. Ms. Lausten reported that District staff has worked with JIG Engineering to prepare the proposed project bypass solution during the entire project period to allow for wet well and other planned improvements. Ms. Lausten indicated that the updated bypass solution would include a secondary wet well option to avoid a sanitary sewer overflow which would increase the project by approximately \$400K with total project engineer's estimate of \$1.5M.

MOTION: None – Informational item only.

ITEM 5: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

1. Orange County Public Works (OCPW) Proposed Trabuco Creek Road Drainage Improvements Project – Mr. Perea presented this matter for Committee consideration, and he reported this matter was previously discussed with the Committee more than three years ago. Mr. Perea provided an update on the OCPW project which impacts the District's lower Porter Property, and he reviewed the options with the Committee and

OCPW's timeline. Mr. Perea reported that OCPW is requesting an encroachment easement from the District as opposed to an easement for this project, and that OCPW plans to turn over any portion of the structure that crossed over/into District property back to the District upon completion. The Committee did not agree with OCPW's proposal and directed District staff to work with general counsel to respond to OCPW.

2. Trabuco Creek Groundwater Treatment Plant Fencing Improvements Update –

Ms. Lausten provided an update on this project, and she presented a handout which presented an alternative location image which included the split-rail vinyl fence that extend across District property. Discussion occurred concerning facility access challenges and maintenance responsibilities.

3. Other Projects -

Mr. Paludi provided a brief update on the damaged v-ditch owned and operated by Dove Canyon Master Association (DCMA), and he reported that District staff has prepared a written response concerning the District's position on the V-ditch failure.

Mr. Paludi provided a brief update on the Saddleback Meadows development, and he reported that District met with the Developer to discuss the development system requirements, including the onsite potable water reservoir. Mr. Paludi added that District staff will present a draft Conditional Will Serve letter to the Board for review.

MOTION: None – Informational item only.

ITEM 6: WATER SYSTEM UPDATES

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

- 1. Successfully started the Trabuco Creek Groundwater Treatment Facility (GWTF) on March 24, 2023 and is currently supplementing demand at 450 gpm (approximately 1 CFS).
- 2. Worked with Ferreira Construction to repair an 8" water main on Inverary in the Dove Canyon community.
- 3. Worked with the Maintenance Department to repair a broken air vacuum breaker behind CVS in the Trabuco Marketplace.
- 4. Completed the Unregulated Contaminant Monitoring Requirement 5 (UCMR5) [EPA requirement] and Annual Vulnerability Assessment (State requirement) sampling at both the treatment facilities.
- 5. Prepared Customer Confidence Report (CCR) data for annual customer notification {State requirement}.

Mr. Kessler presented the Water System Summary for Committee review, and he provided updates on the GWTF production and certain facility equipment upgrades.

MOTION: None – Informational item only.

ITEM 7: WASTEWATER SYSTEM UPDATES

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

- 1. Quarterly cleaning of wet wells at lift stations.
- 2. Quarterly inspections of commercial grease interceptors.
- 3. Completed quarterly sampling for Robinson Ranch Wastewater Treatment Plant (WWTP).

- 4. Removed 15HP submersible pump from wet well at WWTP for tank cleaning.
- 5. Installed all new building signage to comply with fire department inspections.
- 6. Replaced a section of the influent 12" pipe to the SBR tanks at the WWTP.

Mr. Ulloa presented the Recycled Water System Summary for Committee review. Discussion occurred concerning the Shadow Rock Detention Basin Pump Station and system operation.

MOTION: None – Informational item only.

ITEM 8: MAINTENANCE DEPARTMENT UPDATES

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

Water Operations

- 1. Worked with Mr. Crane (service provider) to install well pumps/motors at the Trabuco Creek GWTF.
- 2. Worked with Flo-Services (service provider) to perform vibration testing on the backwash pump at the Dimension Water Treatment Plant.
- 3. Completed oil changes on the four electrical motors at Ridgeline Booster Pump Station.

Wastewater Operations

- 1. Replaced solenoids on the waste line valves in the SBR dry pit at the WWTP.
- 2. Worked with Duthie Power (service provider) to perform preventative maintenance on emergency backup power generators.
- 3. Cleaned out and re-organized the storage sheds at WWTP for parts storage.

District Fleet Upgrades

- 1. Vehicle oil changes on #18 F150, #23 Toyota Tacoma, #19 Ford Escape (#19 sent to Ford dealer for recall repairs).
- 2. Installed new toolboxes on two vehicles (#1 Toyota Tundra and #25 Toyota Tundra).
- 3. Windshield replacement and MAF sensor on vehicle #14 F250.
- 4. Completed the regulatory BIT program.
- 5. Replaced the tires on vehicle #8 F250 and #14 F250.
- 6. Installed a new emergency light bar on vehicle #15 Toyota Tacoma.

MOTION: None – Informational item only.

ITEM 9: OTHER MATTERS/REPORTS

Mr. Perea introduced the District's new SCADA/CMMS Administrator Mr. Phil Serpas to the Committee, and he reported that Mr. Serpas transitioned from the Water Operations department. Mr. Perea added that the District will backfill the vacant water operator position in the near future.

MOTION: None – Informational item only.

ADJOURNMENT

Director Safranski adjourned the April 5, 2023 Engineering/Operational Committee Meeting at 8:56 a.m.

ENGINEERING MATTERS

ITEM 2: TRABUCO CANYON WATER DISTRICT FISCAL YEAR 2023-24 CAPITAL IMPROVEMENT PROGRAM BUDGET

District staff prepares a list of proposed projects for the upcoming fiscal year to recommend a Capital Improvement Program (CIP) budget to the Board of Directors. For the past year, Staff has worked with their consultant, Hazen Sawyer (Hazen) to prepare a Condition Assessment and Master Plan (Plan) which will provide a roadmap for the District's infrastructure needs. The result of this Plan is a robust list of CIP recommendations. Staff has analyzed Hazen's report and worked to provide a CIP budget for FY 23/24 for committee consideration, as follows:

Item	Name	Project Basis	Amount
PROJECT			
1	Golf Club SLS Improvement	End of Service Life	\$1,800,000
2	DWTP Office & Storage	Safety/End of Service Life	\$350,000
3	SCADA System Upgrades FY 2223	Reliability/End of Service Life	\$400,000
4	WWTP Hoffman Blower Building Rehab	Reliability	\$400,000
5	10" Pipeline Replacement - Cooks to Harris Grade	Reliability	\$250,000
6	Chiquita FY23/24	Contract Agreement	\$178,000
7	Dove/Robinson Ranch Recycled BPS	End of Service Life	\$100,000
8	Heritage SLS Rehab	End of Service Life	\$100,000
9	PSPS Transfer Switch Upgrade-Water	Reliability	\$60,000
10	PSPS Transfer Switch Upgrade-Sewer	Reliability	\$60,000
11	WWTP SCADA/Fiber Optic Upgrade	End of Service Life	\$130,000
12	El Toro Force Main Discharge Valve Replacements	Reliability/End of Service Life	\$79,000
13	DWTP Vault Improvement	Safety	\$75,000
14	Recycled PRV Vault Improvements - Dove Canyon	End of Service Life	\$200,000
		Sub-Total	\$4,182,000
EQUIPMEN	<u>T</u>		
15	Fleet	General Maintenance	\$130,000
16	Pump Replacements - Sewer	End of Service Life	\$50,000
17	Pump Replacements - Water	End of Service Life	\$50,000
		Sub-Total	\$230,000
PROGRAM			
18	PRV - Water	General Maintenance	\$20,000
19	Valve Replacements - Water	General Maintenance	\$30,000
20	Wet Well Recoating	General Maintenance	\$30,000
21	Manhole Recoating	General Maintenance	\$20,000
		Sub-Total	\$100,000
	Total FY 23/24		\$4,512,000

FUNDING SOURCE:

General Fund

FISCAL IMPACT

\$4,512,000

RECOMMENDED ACTION(S):

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

EXHIBIT(S):

None

CONTACTS (staff responsible): PALUDI/LAUSTEN

ENGINEERING MATTERS

ITEM 3: DEPARTMENT OF WATER RESOURCES EMERGENCY ACTION PLAN AND INUNDATION MAP DEVELOPMENT – DOVE AND TRABUCO DAMS

The Oroville spillway incident, which began February 7, 2017, called attention to the need for inundation maps and emergency action plans (EAPs) for dams and critical appurtenant structure. Before the incident, an inundation map and associated EAP existed for the potential failure of the Oroville Dam; however, an inundation map and EAP did not exist for the potential failure of the emergency spillway, which is considered a critical appurtenant structure. This prompted the passing of SB92, effective July 1, 2017, requiring dam owners to prepare and submit inundation maps for the dam, as well as any critical appurtenant structures to the California Department of Water Resources (DWR) Department of Safety of Dams (DSOD), except for low-hazard class dams. After approval of the inundation maps, EAPs are completed and submitted to the Governor's Office of Emergency Services (CalOES) for approval.

The District is responsible for two dams, Trabuco and Dove Canyon, both of which have been classified as "High Hazard" based on the dam's downstream hazard classification. In October 2017, the District contracted with Dudek to prepare the inundation maps and EAP's. This process required multi-agency coordination, to include DWR, DSOD, CalOES, Orange County Fire Authority, Orange County Sheriff, MWDOC-WEROC, Orange County Parks, Orange County Public Works, and the City of Rancho Santa Margarita. The approved inundation maps can be found on DWR's website and are included as Exhibit 2. The maps were approved by DWR in March 2019 and the EAP's were approved by CalOES in April 2023.

EAPs are to be reviewed and updated annually. Inundation maps must update every 10 years, or sooner if there is (1) a significant modification to the dam or a critical appurtenant structure as determined by the Department of Water Resources, Division of Safety of Dams, or (2) a significant change to downstream development that involves people or property.

FUNDING SOURCE:

General Fund

FISCAL IMPACT

\$80,372

ENVIRONMENTAL COMPLIANCE:

Not Applicable

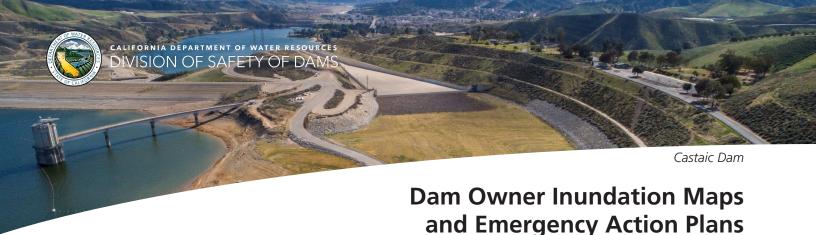
RECOMMENDED ACTION(S):

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

EXHIBIT(S):

- 1. Inundation Maps and Emergency Action Plans Fact Sheet.
- 2. TCWD's Inundation Maps.

CONTACTS (staff responsible): PALUDI/LAUSTEN



About Inundation Maps

An inundation map shows flooding that could result from a sudden hypothetical failure of a dam or its related structure(s). Inundation maps, when paired with dam owners' Emergency Action Plans, inform emergency planning and response by helping to estimate the extent and depth of potential flooding, and by identifying at-risk areas and

resources in advance of the floodwaters arriving.

California Water Code requires owners of all dams in DSOD's jurisdiction (except for dams classified with a "Low" downstream hazard potential) to prepare inundation maps for their dam and related structures. This includes dams owned by public agencies, private organizations, and individual landowners. Inundation maps must be updated a minimum of every 10 years from the map preparation date; anytime there are significant modifications to the dam or its related structures; and when there are changes to downstream development or terrain.

Dam owners are required to submit inundation maps to DSOD for review and approval. After DSOD approves an inundation map(s), the dam owner must submit their approved map(s) with their Emergency Action Plan to the Governor's Office of Emergency Services (Cal OES) for review and approval. The review of inundation maps by DSOD and the review Emergency Action Plans by Cal OES are entirely separate processes.

A link to approved inundation maps is posted on DSOD's webpage: https://fmds.water.ca.gov/maps/damim/

Public Safety is the Foundation of DSOD's Independent Dam Oversight

The <u>California Water Code</u> entrusts dam safety regulatory authority to the California Department of Water Resources' Division of Safety of Dams (DSOD). DSOD provides oversight of the design, construction, and maintenance of approximately 1,250 non-federally owned dams within its jurisdiction. DSOD inspects <u>jurisdictional dams</u> to assess if the dams and their related structures (e.g. gated spillways, saddle dams, etc.) are safe for continued use and performing as intended. After inspection and review, DSOD may direct dam owners to make necessary repairs.

DSOD conducts independent engineering analyses to validate proposed designs of dam repairs, alterations, enlargements, new dam construction, and removals that are submitted by dam owners or their consultants. DSOD reevaluates existing dams as changes in the state-of-practice occur that could impact dam safety. When necessary, DSOD may immediately direct a dam owner to implement remedial means necessary to protect life and property; or DSOD may impose a reservoir restriction that limits the reservoir's water surface level until repairs or remediation work is completed.

About Emergency Action Plans

State law requires dam owners to develop an Emergency Action Plan for each of their dams based on DSOD-approved inundation maps.

The California Water Code and Government Code entrusts the Governor's Office of Emergency Services (Cal OES) to review and approve dam owner Emergency Action Plans. Dam owners must submit their Emergency Action Plans to Cal OES for approval by deadlines that are based on the dam's downstream hazard classification. In the absence of an approved map by the deadline, dam owners are encouraged to develop and submit a draft Emergency Action Plan to Cal OES. Emergency Action Plans must be updated a minimum of every 10 years; when there are significant modifications to the dam or its related structures; and when there are significant changes to downstream development that involves people and property.

An Emergency Action Plan is a dam owner's formal plan that identifies potential emergency conditions at a dam and specifies actions to be followed to minimize loss of life and property damage. It includes information that dam owners use to notify local emergency management officials and state and federal dam safety regulators.

The dam owners' Emergency Action Plan must be developed in consultation with the local public safety agencies that may be affected by a dam incident. The resulting plan and the dam owner's approved inundation map informs local jurisdictions as they plan for all types of dam incidents, including failure of a dam; and helps local, state, and federal agencies ensure effective dam incident emergency response.

Real-life dam incidents do not necessarily imitate the assumptions in the hypothetical failure scenario that are used to develop inundation map(s). When an incident occurs, emergency management agencies conduct local emergency operations based on the scenario at hand.

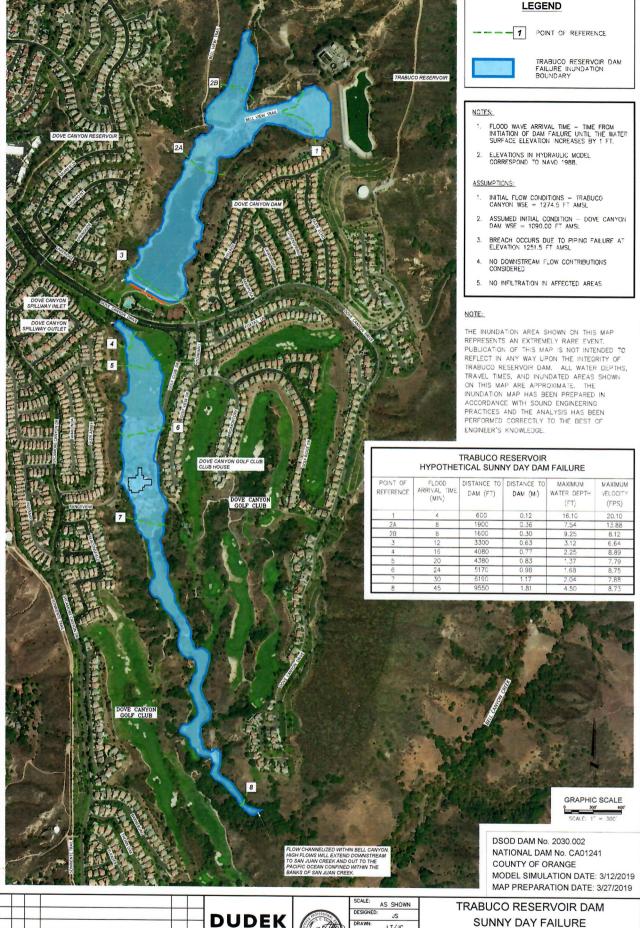
Dam owners' Emergency Action Plans are not publicly posted because they contain critical infrastructure information and other sensitive information.

Emergency action plans that are produced by dam owners do not direct local emergency response. Only local emergency management agencies have the authority to plan and execute local emergency operations.

For more information please visit:

https://water.ca.gov/Programs/All-Programs/Division-of-Safety-of-Dams https://www.caloes.ca.gov/cal-oes-divisions/hazard-mitigation/dam-safety-planning-division



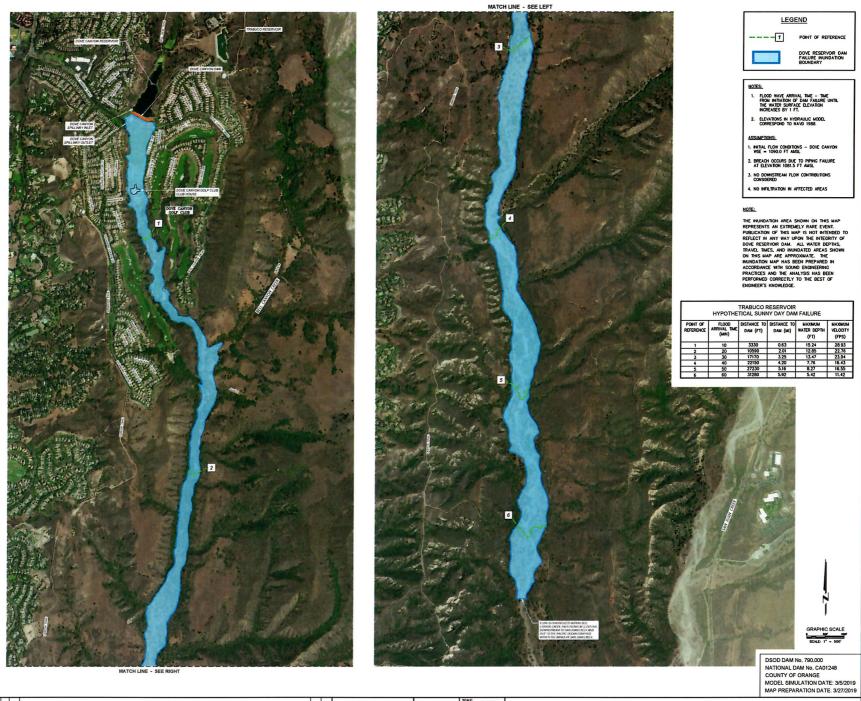


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DESIGNED: JS	TRABUCO RESERVOIR DAN
DRAWN: LT/JC	SUNNY DAY FAILURE
CHECKED: JS	INUNDATION MAP
DATE: MAR 27, 2019	INCINDATION MAI
JOB NO:. 11042	TRABUCO CANYON WATER DISTRICT, CA.







SCALE: AS SHOWN	
DESIGNED: JS	
DRAWN: LT/JC	
OMECKED: JS	
DATE: MAR 27, 2019	
JOB NO:	

ENGINEERING MATTERS

ITEM 4: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

- 1. Golf Club Sewer Lift Station Improvements
- 2. Oaks at Trabuco Development
- 3. Dove Center Update
- 4. Rose and Lang Wells Groundwater Treatment Facility Fence Project
- 5. Other Projects

RECOMMENDED ACTION:

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

EXHIBIT(S):

None

CONTACTS (staff responsible): PALUDI/PEREA/LAUSTEN

OPERATIONAL MATTERS

ITEM 5: WATER SYSTEM UPDATES

The following is a brief report of the water system for March 2023.

Projects and Repairs

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

- 1. Replaced two fire hydrants in Dove Canyon and Santiago Estates communities.
- 2. Replaced a residential potable water service curb stop on Briarcliff in the Dove Canyon community.
- 3. Repaired a potable water system blow off at Trabuco Marketplace.
- 4. Replaced a Pressure Reducing Valve (PRV) transducer on High Country Road.
- 5. Repaired the altitude valve at Rose Reservoir.
- 6. Repaired a potable water service leak on Wakonda in the Dove Canyon community.
- 7. Removed an air vacuum breaker and relocated a sample test port at the Dimension Water Treatment Plant (DWTP).
- 8. Continued to work with TESCO Controls and Hydrotech Electric to keep GWTF running.

Monthly Water System Operations Summary

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

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

1. Monthly Water System Operations Summary

CONTACTS (staff responsible): PEREA/KESSLER

TRABUCO CANYON WATER DISTRICT MONTHLY WATER SYSTEM OPERATIONS SUMMARY - 2023

SYSTEM PRODUCTION/SUPPLIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
Number of Days	31	28	31	30	31	30	31	31	30	31	30	31	365
Dimension WTP	8%	17%	25%	33%	42%	50%	58%	67%	75%	83%	92%	100%	
SAC Pipeline Meter	91.2	109.2											200.4
Backwash, AF	2.7	3.5	0.8										7.0
Flushwater, AF	4.2	3.7	0.6										8.5
DWTP Effluent (1)	92.2	111.3	10.2										213.7
Groundwater, AF													
Trabuco Creek GWTF	0.0	0.0	17.9										
U.S. Well AF	0.0	0.0	0.0										
Total Groundwater (2)	0.0	0.0	17.9										
Water Purchases, AF	0.0	0.0	.,,,,										
SMWD Treated Interconnection	0.0	0.0	0.0										
IRWD Treated Interconnections	0.0	0.0	58.0										
IRWD Irvine Lake	0.0	0.0	0.0										
Total Purchases (3)	0.0	0.0	58.0										
0	0.0	0.0	55.0			_	_	<u> </u>		<u> </u>	<u> </u>	<u> </u>	
Total Supply AF (1,2,3)	92.2	111.3	86.1										
% Year - Peak Prod 2,449 AF (2018)	4%	17%	12%										
AF/Day	3.0	4.0	2.8										
CFS/Day, Avg.	1.5	2.0	1.4										
Reservoir Storage	1.5	2.0	1										
Monthly Average, MG	9.1	9.1	9.0						ı				
Monthly Average, MG	27.9	27.9	27.6										
Days of Storage	4.0	4.0	4.0										
SYSTEM DEMANDS	4.0	4.0	4.0					Ļ	Į				
District Operations, AF (1) Dimension WTP	0.18	0.13	0.03						1				
Robinson Ranch WWTP	0.16	0.13	0.03										
Supplemental Domestic to RW Res.	0.0	0.0	0.0										
Subtotal	0.2	0.0	0.4										
System Losses, AF (2)	0.00	0.66	0.00					l	1		l	l	
Flushing	0.98	0.66	0.00										
Sewer Cleaning	0.02	0.02											
Line Breaks	0.46	0.00	0.15										
Subtotal	1.46	0.68	0.17			L	L						
Zone Demands, AF (3)						1	1		1	1			
Topanga Canyon	0.4	0.4	1.0										
Falcon Estates	0.04	0.1	0.1										
Rose PRV/The Oaks	0.6	1.7	1.9										
Canyon Creek	0.1	0.2	0.1										
Rose Pump Station	0.0	0.1	0.4										
Robinson Ranch	19.6	26.1	18.1										
Dove Canyon	38.8	43.9	39.2										
Subtotal	59.5	72.2	60.8										
Total System Demand (1,2,3)	61.2	73.0	61.4										<u></u>

TRABUCO CANYON WATER DISTRICT MONTHLY WATER SYSTEM OPERATIONS SUMMARY - 2023

System Demands**													
AF/Day	3.0	4.0	2.8										
Daily Average, CFS	1.5	2.0	1.4										
Other Water Deliveries/Purchases	Other Water Deliveries/Purchases												
Ridgeline (DWTP Delivery)	85.2	103.0	8.9										
El Toro (Interconnection Purchase)	0.0	0.0	0.0										
Baker WTP (CSC Delivery)	115.0	108.0	55.2										
Portola Hills (Wholesale Purchase)	8.0	8.4	6.9										
Skyridge (Wholesale Purchase)	1.5	1.5	1.6										
* Usage estimated		** Excludes Operational use, losses, and supplement to Recycled Water Reservoir (RW)											

OPERATIONAL MATTERS

ITEM 6: WASTEWATER SYSTEM UPDATES

The following is a brief report of the wastewater system for April 2023.

Projects and Repairs

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

- 1. Cleaned Bell Canyon Lift Station wet well.
- 2. Assisted TESCO Controls with VFD repairs at Dove Recycled Pump Station.
- 3. Assisted with Department Safety of Dams (DSOD) Dam inspections at Trabuco Dam and Dove Canyon Dam.
- 4. Performed weed abatement at Robinson Ranch Wastewater Treatment Plant (WWTP).
- 5. Replaced a submersible pump at Santiago Canyon Lift Station.

Sewer System Management Plan (SSMP) Report

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

Sewer System Management Plan (SSMP) Monthly Update										
Total Sewer Line, Feet*	212,045									
Total Sewer Line Cleaned (Ft) – Month	10,273									
Total Sewer Line Cleaned (Ft) – Cleaning Cycle	72,128									
Cleaning Cycle Period (Mos.) [Start date: 9/1/22]	7									
Total Sewer Line Cleaned, %	34%									
The Oaks at Trabuco – Pumping Frequency for the Month	12									
O'Neill Park Sewer System Status	Ok									
O'Neill Park Sewer System Repairs	None									
SSMP Quarterly Report – Next Quarterly Report	2Q 2023									
SSMP Program Audit – Next Audit Report**	February 2024									

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

Monthly Recycled Water System Operations Summary

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

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

1. Monthly Recycled Water System Operations Summary

CONTACTS (staff responsible): PEREA/ULLOA

^{**}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:

TRABUCO CANYON WATER DISTRICT | NON-DOMESTIC WATER SYSTEM SUMMARY - 2023

DEGVOLED WATER GURRING															
RECYCLED WATER SUPPLY	MAX	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ост	NOV	DEC	TOTAL	FIVE YEAR
					APR	WAY	JUN	JUL	AUG	SEP	. 001	NUV	DEC		AVG
WWTP Reclaimed Water Production, AF	78.3	58.6	37.8	34.6										130.9	529.1
Reclaimed Reservoir Level, FT	1274.5	1,273.0	1,274.0	1,272.5										-	-
Reclaimed Reservoir Free Board, FT	25.5	1.5	0.5	2.0										-	-
Reclaimed Reservoir Storage, AF	145.5	135.7	139.3	132.1										-	-
Supplemental Domestic Water Added, AF	N/A	0.0	0.0	0.0										0.0	35.5
RECYCLED WATER SYSTEM DEMAND															
NON DOMESTIC WATER USER	ALLOC. AF	8% JAN	17% FEB	25% MAR	33% APR	42% MAY	50% JUN	58% JUL	67% AUG	75% SEP	83% OCT	92% NOV	100% DEC	TOTAL	ALLOC. %
Dahlia Court	8.2	0.07	0.1	0.0										0.22	2.6%
Dove Canyon Golf Course	106.7	0.29	5.9	0.2										6.46	6.1%
Dove Canyon Master Association	279.3	0.28	1.1	0.1										1.48	0.5%
Robinson Ranch	80.2	0.25	1.4	0.3										1.92	2.4%
Trabuco Highlands	159.7	2.25	5.9	0.1										8.21	5.1%
City of RSM	0.1	0.00	0.03	0.00										0.03	21.5%
Construction Water	N/A	0.00	0.0	0.0										0.00	N/A
Sakaida Nursery	1.1	0.00	0.0	0.0										0.00	0.0%
SMWD	N/A	41.74	40.6	7.7										90.09	N/A
TY Nursery	17.9	0.00	0.05	0.0										0.05	0.3%
TOTAL, AF	653.2	44.9	55.1	8.4										108.45	16.6%
PERCENTAGE OF NDW ALLOCATION/YEAR	₹	6.9%	15.3%	16.6%											
TOTAL ANNUAL AVG. NDW AVAILABLE**	774.36														
URBAN RUNOFF CAPTURE AND REUSE															
DISTRICT FACILITY		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	FIVE YEAR AVG
Shadow Rock Detention Basin Production		0.15	0.00	0.00										0.15	14.2
Dove Tick Creek Production*	Dry Season	0.0	0.0	0.0										0.0	58.8
	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	185.8
Dove Lake Free Board, Ft		0.0	0.0	0.0										-	-
Dove Lake Storage, AF		180.0	180.0	180.0										-	-
Total Painfall In		0 1	2.1	10.2		i e	İ .		Ì					20.4	1/17

Total Rainfall, In. 8.1 2.1

* 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

OPERATIONAL MATTERS

ITEM 7: MAINTENANCE DEPARTMENT UPDATES

The following is a brief report of work completed by Maintenance staff for April 2023.

Projects and Repairs

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

Water Operations

1. Worked with Water Operations to remove sump pump at Trabuco Creek GWTF.

Wastewater Operations

- 1. Rented a Bobcat track steer and accessories to perform weed abatement at Robinson Ranch WWTP.
- 2. Worked with Operations to install a new pump at Santiago SLS.
- 3. Worked with Operations and Hydrotech Electric to troubleshoot a failed Hoffman Blower. Discovered the power supply wires were split and causing the fuse to blow. Repaired and restored the blower.
- 4. Worked with pump vendor to repair pumps at Golf Club SLS and O'Neill SLS.

District Fleet Upgrades & Other Projects

- 1. Ordered new Heavy Duty Equipment Trailer (FY 2022-23 CIP Project).
- 2. Oil change and tire replacement on vehicle no. 4.
- 3. Started AQMD Emergency Diesel Emission Report.
- 4. Worked with vendor for District-wide Fire Extinguisher service.
- 5. Prepared for Water Awareness Day event.

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

None

CONTACTS (staff responsible): PEREA/STROUD

REGULATORY AND OTHER MATTERS ITEM 8: OTHER MATTERS/REPORTS

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

RECOMMENDED ACTION:

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

EXHIBITS

None

CONTACTS (staff responsible): PALUDI/PEREA