PUBLIC VENTURA COUNTY WORKS

COUNTY of VENTURA

Jeff Pratt
Agency Director

David Fleisch
Assistant Director

Central Services **Joan Araujo**, Director | Engineering Services **Christopher Cooper**, Director | Roads & Transportation **Chris Hooke**, Acting Director | Water & Sanitation **Joseph Pope**, Director | Watershed Protection **Glenn Shephard**, Director

Representing: Ventura County Waterworks District Nos. 1, 16, 17, 19, and 38
County Service Area Nos. 29 (North Coast), 30 (Nyeland Acres), 34 (El Rio), Camarillo Airport, Todd Road Jail

July 8, 2021

NOTICE OF A MEETING OF THE
VENTURA COUNTY WATERWORKS DISTRICT NO. 17
BELL CANYON CITIZENS' ADVISORY COMMITTEE

NOTICE IS HEREBY GIVEN that a meeting of the Ventura County Waterworks District No. 17 Bell Canyon Citizens' Advisory Committee will be held **Tuesday, July 13, 2021 from 7 p.m. to adjournment** via Zoom. To electronically join the meeting please follow the provided steps – At the specific time (7:00 p.m.) dial the number (669) 900-6833, when prompted enter the meeting ID 470 052 7072. You can also join the meeting by visiting this link - **Join Zoom Meeting** https://us02web.zoom.us/j/4700527072

Advisory Committee Members: Please contact the District Office by telephone at (805-378-3005), or by email at wspc@ventura.org, no later than July 12, if you are unable to participate on the call.

Sincerely,

J. C. Pope

Joseph C. Pope, Director
Water and Sanitation

AGENDA OF THE MEETING

TO FIND OUT HOW YOU MAY ELECTRONICALLY ATTEND THE CAC MEETING AND PROVIDE PUBLIC COMMENT PLEASE REFER TO "NOTICES" LOCATED ON PAGE 3 OF THIS AGENDA.

1. CALL TO ORDER

2. APPROVAL OF THE MINUTES OF THE MAY 18, 2021 MEETING

3. PUBLIC COMMENTS

Members of the public may address the Citizens' Advisory Committee (CAC) on items of interest to the public that are within the subject matter jurisdiction of the Committee· but do not appear on the agenda. With respect to agenda items, the public will be given an opportunity to address the Committee when the item is reached in the meeting.

4. DISTRICT STAFF REPORT

A. BUDGET AND FINANCIAL REVIEW - An update on the budget and financial status

B. WATER QUALITY REPORT – A report regarding water quality complaints, if any, received by the District since the previous CAC meeting and how these complaints were resolved.

C. WATER SUPPLY CONDITIONS – An update on water supply conditions within the District, Southern California, and throughout the State.

D. CALLEGUAS MUNICIPAL WATER DISTRICT / METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA UPDATE – An update on decisions and rulings by these agencies which may impact the District.

E. UPDATE ON AVENUES OF PUBLIC OUTREACH – How the District is reaching out to its customers concerning water conservation.

F. BOARD LETTER TRACKER - UPDATE ON VENTURA COUNTY BOARD OF SUPERVISORS AGENDA ITEMS RELATED TO THE DISTRICT – A status report on what items District staff has recently presented, or may be presented, before the Ventura County Board of Supervisors.

- 9/14/2021 – Engineering and Development Fees Update (All Waterworks Districts)
- 9/14/2021 – Rules and Regulations Updates (All Waterworks Districts)

G. UPDATE ON ADVANCED METERING INFRASTRUCTURE (AMI) IMPLEMENTATION - The AMI project is an integrated system of smart meters, communications networks, and data management systems that

enables two-way communication between utilities and customers which is being implement within the District.

H. DIRECTOR'S INFORMATIONAL ITEMS – Provides the opportunity for the Director to present items that are not within the subject matter of the District's Staff Report.

- Aged Report
- COVID-19 Waived Fees Report
- Draft Woolsey Canyon Alternative Water Supply Study
- District 17, Bell Canyon Quarterly Operations and Maintenance Report

5. COMMITTEE MEMBERS' COMMENTS/FUTURE AGENDA ITEMS

6. ADJOURNMENT

__NOTICES:__** The following information is provided to help you understand, follow, and participate in the Board meeting: Public Comments – Public comment is the opportunity for members of the public to participate in meetings by addressing the Citizens Advisory Committee in connection with one or more agenda or non-agenda items.

- **If you wish to make a comment on a specific agenda item, please submit your comment via email by 5:00 p.m. on the day prior to the Committee meeting. Please submit your comment to WSPC@ventura.org. Please indicate in the Subject Line, the Agenda item number (e.g., Item No. 3A). Your email will be read by the Water and Sanitation Director and placed into the record.**
- **If you are watching the live stream of the Committee meeting and would like to make a general public comment for items not on the day's agenda or to comment on a specific agenda item as it is being heard, please submit your comment to WSPC@ventura.org. Please indicate in the Subject Line, the Agenda item number (e.g., Item No. 3A). Every effort will be made to read your comment into the record, but some comments may not be read due to time limitations. Comments received after an agenda item will be made part of the record if received prior to the end of the meeting.**

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCETO PARTICIPATE IN THIS MEETING, PLEASE CONTACT CAYTLYN CAYLOR AT (805) 378-3005. REASONABLE ADVANCE NOTIFICATION OF THE NEED FOR ACCOMODATION PRIOR TO THE MEETING (48 HOURS ADVANCE NOTICE IS PREFERABLE) WILL ENABLE US TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING.

Draft

CITIZENS' ADVISORY COMMITTEE
VENTURA COUNTY WATERWORKS DISTRICT NO. 17
MINUTES OF THE MAY 18, 2021, TELECONFERENCE MEETING

COMMITTEE MEMBERS IN ATTENDANCE: Lisa Riccomini, Greg McHugh, Steven Price, Neil Sokoler, Ron Marks

COMMITTEE MEMBERS ABSENT: None

COMMITTEE MEMBER VACANCY: None

STAFF: Joseph Pope, Director
Scott Meckstroth, Deputy Director
Ryan Lippincott, Engineering Manager

GUESTS: None

* * *

1. CALL TO ORDER - The meeting was called to order at 7:03 pm.

2. APPROVAL OF THE MINUTES OF THE MARCH 16, 2021 MEETING
   - Minutes approved as submitted

   Vote: Yeas- 5, Nays- 0, Absence-0, Abstained- 0

3. PUBLIC COMMENTS
   - None

4. DISTRICT STAFF REPORT

   A. BUDGET AND FINANCIAL REVIEW –
   - No major anomalies or unexpected expenses to date, everything is on track
   - Committee member Greg McHugh asked for more information on line item #29 – Misc. Expense, Mr. Pope said he would have to look that information up on his master spreadsheet and provide a response to Greg.
   - Greg would also like to see the detailed breakdown of line item #32 – O&M Labor and the charge codes for each project that is worked on. Mr. Pope stated he would provide the audited report at the next WWD17 CAC meeting
   - Mr. Pope confirmed that the System Improvement Maintenance line item #78 reflects ongoing maintenance and small contracts that were issued.
   - Committee member Lisa Riccomini asked if the report for hydrant charges are reflected on the financial reports, Mr. Pope answered that the cost of the use of the fire hydrant by either Water and Sanitation staff or the Fire Department is built into the rate but if the hydrant is used for construction then a water meter is required and the customer using the meter will be charged directly.
   - Greg requested that a report reflecting the historical/current for the billed

acre-feet used for the District be provided back into the CAC agenda reports. Mr. Pope responded that he did review the archived documents over the last couple of years and couldn't find the exact report Greg is referring to but would ask Fiscal to provide a water sales and purchased water report for future meetings monthly or quarterly.

B. CAPITAL PROJECTS –
- Update as of 5/6/2021 for the 1.74 MG Reservoir with Zone 1924: renewing AECOM and Cotton Shires to renew the contracts. 35% Consultant design should be completed by January of 2021 that will roll into the CEQA process beginning in late February 2022. A construction award should be issued in December and the final project is anticipated to be completed by 2024.
- Greg said he received some suggestions from the volunteer fire department that an additional request on this project for a temporary fire helicopter filling station is available at the project site. Mr. Pope said that staff are considering going from steel frame to concrete slab for the tank site so the request could work out but would like to see what source of funding is available and the fire department's requirements. He also stated we would have to research who would be responsible for maintaining it, whether it be the County or the fire department.

C. WATER QUALITY REPORT –
- 2 water pressure complaints: both issues were found to be caused by partially closed meter anglestop valves that were left closed after a meter replacement was performed by District staff.
- 1 water quality complaint: milky water was a result of air in the water

D. WATER SUPPLY CONDITIONS –
- California state is in a drought
- It is possible that Calleguas Water Purveryor may receive a small portion of Colorado River supplies this year, it is important to note the snowpack that feeds into the Colorado River is also below average for 2021
    i. Colorado River as of May 11, 2021
        1. Lake Mead: 38% capacity
        2. Lake Powell: 34% capacity
- Water supply availability will not be impacted in 2021 due to ongoing efforts by water users that have lowered demand through water conservation and recycled water programs along with investments in storage made in recent years to capture supplies in wet years.

E. CALLEGUAS MUNICIPAL WATER DISTRICT/ METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA UPDATE –
- This information was covered under Item D. Water Supply Conditions

F. UPDATE ON AVENUES OF PUBLIC OUTREACH –
   - No updates at the time of the meeting

G. BOARD LETTER TRACKER –
   - 5/18/2021 – Adoption of Resolution Continuing the Existing Water Standby Charge for Fiscal Year 2021-22 for Ventura Count Waterworks District No. 17, Bell Canyon was presented to the Board of Supervisor and approved as submitted

H. UPDATE ON ADVANCED METERING INFRASTRUCTURE (AMI) –
   - No updates at the time of the meeting

I. DIRECTOR'S INFORMATIONAL ITEMS –
   - District 17 Operations and Maintenance Updates, Q3 (Jan. 1 – March 31, 2021):
     - Distribution repairs – line flushing, 100% of end of line blow-offs completed
     - Installing old meters with AMI capability at pressure reducing stations to better track operation and water loss
     - Source water – City of Simi Valley (CMWD): 207 AF delivered in FY21Q3 with no average water loss for the Quarter
     - Customer service and meter reading – meter replacements will be completed by July 1, 2021
     - Looking forward – District staff continue to work with CMWD and LVMWD to identify a shared approach to a secondary service to District 17 report due in May. Survey Saddle Bow Crossing monthly with the Leak Correlator monthly, City of Simi removed one of their tanks out of service for recoating and is slated for completion by early July
     - Engineering/Capital Improvement Projects –new water reservoir #3 and pipeline design of Stagecoach to Saddlebow Crossing: $10M, District received concurrence from HOA regarding the proposed location with a key issue being funding, land agreements, and geotech
       - 30% design and geotech processing, CEQA process by Jan. 2022
   - Director's Aged Report: $25,088.72 in water bills that are over 61 days late
     - The outstanding balance can be collected by the individuals that owe, the Water and Sanitation staff contact the customers to set up payment plans, and we also have the authorization to place liens on the property.
     - Effective June 15, 2021 late fees will be established and collected from all Districts
   - COVID-19 Waived Fees Report: ($94,507) in waived fees since March of 2020.

5. Committee Members' Comments / Future Agenda Items
    - Review and discuss the FY22 budget

6. ADJOURNMENT – The meeting adjourned at 7:50 pm.

4. DISTRICT STAFF REPORT

A. BUDGET AND FINANCIAL REVIEW - An update on the budget and financial status

Waterworks District 17
Financial Reports

	Waterworks District #17 Bell Canyon ADHOC REPORT DETAILS		FY18 ACTUAL	FY19 ACTUAL	FY20 ACTUAL	FY21 ADJ BUDGET	FY21 ACTUAL	FY21 YR-END PRJ	FY22 REQ BUD
1									
2	Total Beginning Balances		$3,122,256	$2,935,670	$2,606,700	$2,306,199	$2,306,199	$2,306,199	$1,714,562
3	Total Ending Balances		$2,935,670	$2,606,700	$2,306,199	$1,327,889	$2,276,164	$1,714,562	$1,373,814
4									
5	Total Proposed Targets		$966,462	$954,697	$908,172	$1,083,456	$884,219	$1,070,973	$1,186,110
6	Alert		ok	ok	ok	ok	ok	ok	ok
7									
8	**O&M/ Rate Stab Fund**		**FY18 ACTUAL**	**FY19 ACTUAL**	**FY20 ACTUAL**	**FY21 ADJ BUDGET**	**FY21 ACTUAL**	**FY21 YR-END PRJ**	**FY22 REQ BUD**
9	**Beginning Balances**		**$1,741,109**	**$1,406,041**	**$906,601**	**$707,327**	**$707,327**	**$707,327**	**$670,729**
10									
11	**O&M Revenue**								
12	Interest Earning		$0	-	-	$0.0	$0	$0	-
13	State Aid for Disaster		$0	$0	71,169.0	$0.0	$0	-	-
14	Special Assessment		$8,320	6,372.9	7,077.8	$6,981.6	$7,012	7,134.76	6,934.8
15	Line Extension/Permit Fees		$2,005	1,245.0	1,255.0	$400.0	$1,295	$1,400	600.0
16	Meter Sales And Install Fee		$3,587	1,015.0	1,265.0	$1,600.0	$1,760	$1,700	1,600.0
17	Other Revenue-Misc		$36,752	31,816.7	70,065.2	$29,300.0	$7,258	$8,500	33,876.4
18	Water Sales		$2,532,939	2,342,070.5	2,534,895.3	$2,859,835.2	$2,755,307	$3,020,400	3,338,008.2
19	Gain/Loss Capital Assets		$0	-	-	$0.0	$0	$0	-
20	CAFR Adjustments					$0.0			
21	**Total - O&M Revenue**		**$2,583,603**	**2,382,520.1**	**2,685,727.3**	**$2,898,117**	**$2,772,631.2**	**$3,039,135**	**$3,381,019**
22									
23	**O&M Expenditure**								
24	System Maintenance Supplies & Contracts		$69,839	224,834.3	107,601.4	$196,000	$54,229	$143,792	167,900.0
25	Improvement Maintenance		$1,205	2,308.1	0.1	$0	$2,720	$5,000	-
26	Buildings And Improvements Maintenance					$0	$0	$0	-
27	Equipment		$8,665	-	681.8	$8,000	$0	$8,000	8,000.0
28	Indirect Cost Recovery		$21,800	24,786.0	17,652.0	$16,081	$16,081	$16,100	8,952.0
29	Misc. Expense		$59,502	93,546.1	55,917.4	$50,500	$28,714	$53,500	52,457.0
30	Other Prof. & Spec. Svcs		$4,363	23,225.0	861.1	$24,000	$1,038	$12,216	30,000.0
31	State Permit/Fees		$0	5,000.0	4,600.0	$5,000	$4,600	4,600	-
32	O&M Labor		$333,910	406,019.4	442,390.2	$571,100	$376,155	$483,525	578,600.0
33	Management And Admin Survey ISF		$96,400	107,700.0	85,900.0	$101,200	$93,150	$101,200	120,100.0
34	Engineering And Technical Surveys		$0	-	-	$52,000	$0	$22,000	27,000.0
35	Water Analysis		$280	824.0	280.0	$5,000	$565	$5,000	5,000.0
36	Cross Connection Fees		$0	500.0	400.0	$500	$300	$300	-
37	Water Purchases		$2,134,260	1,858,489.3	1,599,864.5	$2,015,500	$1,722,919	$2,073,800	2,273,548.2
38	Water System Power		$3,710	254.4	2,834.2	$1,000	$2,698	$4,700	3,000.0
39	Depreciation Expense		$104,217	104,217.4	104,361.0	$104,209	$95,486	$104,200	104,179.0
40	Contribution to other Funds		$13,021	9,355.7	742.2	$7,800	$0	$7,800	4,500.0
41	Meter Purchase		$1,500	20,900.0	10,100.0	$30,000	$36,100	30,000	24,000.0
42	Conservation Program		$0	-	-	$2,000	$0	-	2,000.0
43	Contingencies		$0	-	$0	$0	$0	$0	-
44	CAFR Adjustment				$184,546	$0			$0
45	**Total - O&M Expenditure**		**$2,852,672**	**$2,881,960**	**$2,618,732**	**$3,189,890**	**$2,434,754**	**$3,075,733**	**$3,409,236**
46									
47	**Result of Operation**		($269,069)	($499,440)	$66,995	($291,773)	$337,877	($36,598)	($28,217)
48									
49	CAFR Adjustments		($66,000)		($266,269)			$0	$0
50	Transfer to/fr Capital Reserve		$0	$0	$0	$0	$0	$0	$0
51									
52	**Ending Balances**		**$1,406,040.63**	**$906,601.03**	**$707,327.48**	**$415,554.26**	**$1,045,204.58**	**$670,729.44**	**$642,512.51**
53									
54	**Minimum Balance**								
55	25%	of O&M expenses	$713,168	$720,490	$654,683	$797,473	$608,689	$768,933	$852,309
56	10%	of rate revenue	$253,294	$234,207	$253,490	$285,984	$275,531	$302,040	$333,801
57									

64									
65	**Acquisition&Replacement Fund**		**FY18 ACTUAL**	**FY19 ACTUAL**	**FY20 ACTUAL**	**FY21 ADJ BUDGET**	**FY21 ACTUAL**	**FY21 YR-END PRJ**	**FY22 REQ BUD**
66	**Beginning Balances**		**$1,381,147**	**$1,529,629**	**$1,700,099**	**$1,598,871**	**$1,598,871**	**$1,598,871**	**$1,043,832**
67									
68	**Capital Sources of Funds**								
69	Interest Earning		$43,006	66,777.6	55,454.0	$46,854	$12,528	$46,900	6,890.5
70	Capital Improvement Chrgs		$1,260	1,475.0	900.0	$1,400	$540	1,400	1,400
71	Gain/Loss Capital Assets		$0	-	-	$0	$0	-	-
72	Loan Proceeds		$0	$0	$0	$275,000	$0	-	625,000.0
73	Depreciation Expense	CY Funded	$104,217	$104,217	$104,361	$104,209	$95,486	$104,200	$104,179
74	**Total - Capital Sources of Funds**		**$148,483**	**$172,470**	**$160,715**	**$427,463**	**$108,554**	**$152,500**	**$737,470**
75									
76	**Capital Uses of Funds**								
77	**Water System Improvement:**								
78	System Improvement Maintenance		$0	-	50.0	$115,000	$10	$63,738	320,000.0
79	Reservoir Improvement		$0	-	129,499.5	$297,500	$450,355	$453,256	-
80	SCADA Improvement		$0	-	-	$15,000	$0	$10,000	-
81	General Improvement Maintenance		$0	-	42,793.4	$0	$0	$0	15,000.0
82	**Total Water System Improvement**		**$0**	**$0**	**$172,343**	**$427,500**	**$450,365**	**$526,994**	**$335,000**
83	**Water Constructiont Project:**								
84	Connection bet. 2 Pressure Zone		$0	-	-	$0	-	$0	-
85	1.74 MG Reservoir with piping within Zone 1924		$0	2,000.0	89,600.0	$686,500	26,100.0	$180,545	625,000.0
86	HighPressurePipeline fr HaciendaRd to Dappelgray		$0	-	-	$0	$0	$0	-
88	**Total Water Construction Project**		**$0**	**$2,000**	**$89,600**	**$686,500**	**$26,100**	**$180,545**	**625,000.0**
Acq	**Other Equipment**								90,000.0
89	**Total - Capital Uses of Funds**		**$0**	**$2,000**	**$261,943**	**$1,114,000**	**$476,465**	**$707,539**	**$1,050,000**
90									
91	**Net Capital Fund**		**$148,483**	**$170,470**	**($101,228)**	**($686,537)**	**($367,912)**	**($555,039)**	**($312,530)**
92									
93	Transfer to/fr O&M / Rate Stabilization Fund		$0	$0	$0	$0	$0	$0	$0
94	Prior Year CAFR Adjustments				$0				
95									
96	**Ending Fund Balance**		$1,529,629	$1,700,099	$1,598,871	$912,335	$1,230,960	$1,043,832	$731,302

WATERWORKS DISTRICT NO. 17
OPERATIONS AND MAINTENANCE
FINANCIAL STATUS REPORT

	CURRENT PERIOD ACTIVITIES TO AP09 ENDING 5/30/2021 @ 91.2% OF THE YEAR						
		ACTUAL	Adopted Budget	Current	% of	Yr-End Projection	
	DESCRIPTION	FY 20	FY 21	Actual	Act/Adpt Bud	6/30/2021	COMMENTS
	EXPENDITURES						
1	System Maintenance Supplies & Contracts	107.6	196.0	54.2	28%	143.8	
2	*General Maint Supplies*	*46.5*	*43.0*	*10.1*	*23%*	*24.1*	
3	*CLA Valve Maintenance*	*0.0*	*7.0*	*0.0*	*0%*	*2.0*	
4	*Pipe Materials*	*45.6*	*8.0*	*3.9*	*49%*	*25.8*	
5	*Valve Replacement*	*0.0*	*40.0*	*0.0*	*0%*	*15.0*	
6	*Ladder Fall Protection*	*0.0*	*0.0*	*0.0*		*0.0*	
7	*Reservoir 1 Recoat*	*9.5*	*0.0*	*0.0*		*0.0*	
8	*Adjust Valve Stacks*	*0.0*	*8.0*	*23.3*	*291%*	*23.3*	
9	*Utility Billing System Maintenance*	*0.0*	*0.0*	*0.0*		*8.5*	
10	*SCADA*	*6.0*	*10.0*	*4.5*	*45%*	*5.1*	
11	*Emergency Repairs*	*0.0*	*80.0*	*12.4*	*16%*	*40.0*	
12	Improvement Maintenance	0.0	0.0	2.7		5.0	
13	Equipment	0.7	8.0	0.0	0%	8.0	
14	Indirect Cost Recovery	17.7	16.1	16.1	100%	16.1	
15	Misc. Expense	55.9	50.5	28.7	57%	53.5	
16	Other Prof. & Spec. Svcs	0.9	24.0	1.0	4%	12.2	purchasing chgs, equipmental rental
17	Engineering And Technical Surveys	0.0	52.0	0.0	0%	22.0	
18	State Permit/Fees	4.6	5.0	4.6	92%	4.6	Reservoir Inspection, Pressure maps
19	O&M Labor	442.4	571.1	376.2	66%	483.5	
20	Management And Admin Survey ISF	85.9	101.2	93.2	92%	101.2	CCR's; GS Atlas Maps
21	Water Analysis	0.3	5.0	0.6	11%	5.0	Dept. of Health & Safety fees
22	Cross Connection Fees	0.4	0.5	0.3	60%	0.3	
23	Water Purchases	1,599.9	2,015.5	1,722.9	85%	2,073.8	
24	Water System Power	2.8	1.0	2.7	270%	4.7	
25	Depreciation Expense	104.4	104.2	95.5	92%	104.2	
26	Contribution to other Funds	0.7	7.8	0.0	0%	7.8	
27	Meter Purchase	10.1	30.0	36.1	120%	30.0	
28	Conservation Program	0.0	2.0	0.0	0%	0.0	Vehicle Gateway Base Station
29	Contingencies	0.0	0.0	0.0		0.0	
30	**TOTAL EXPENDITURES**	**2,434.2**	**3,189.9**	**2,434.8**		**3,075.7**	
31	REVENUES						
32	Interest Earning	0.0	0.0	0.0		0.0	
32	State Aid for Disaster	71.2	0.0	0.0		0.0	
33	Special Assessment	7.1	7.0	7.0	100%	7.1	
34	Line Extension/Permit Fees	1.3	0.4	1.3	324%	1.4	
35	Meter Sales And Install Fee	1.3	1.6	1.8	110%	1.7	
36	Other Revenue-Misc	70.1	29.3	7.3	25%	8.5	
37	Water Sales	2,534.9	2,859.8	2,755.3	96%	3,020.4	
38	Gain/Loss Capital Assets	0.0	0.0	0.0		0.0	
39	**TOTAL REVENUES**	**2,685.7**	**2,898.1**	**2,772.6**		**3,039.1**	
40	**RESULT OF OPERATION**	**251.5**	**(291.8)**	**337.9**		**(36.6)**	
41	**O&M Fund Balance Reserve:**						
42	Beginning Fund Balance	906.60	$973.54	$973.54		$973.54	
43	CAFR Adjustments/FY20/2312-Purchases	(184.60)				($266.30)	CityOfSimiValley-AccruedPurchases
44	Net of Operation	251.54	(291.77)	337.88		(36.60)	
45	**O&M Fund Balance Reserve:**	**$973.54**	**$681.77**	**$1,311.42**		**$670.64**	670.50
46	**Required O&M Fund Reserve: 25% of Exp.**	**$608.55**	**$797.47**	**$608.69**		**$768.93**	
46	**O&M FBR vs Required Reserve**	ok	alert	ok		alert	

WATERWORKS DISTRICT NO. 17 - WATER
CAPITAL PROJECTS
FINANCIAL STATUS REPORT

	CURRENT PERIOD ACTIVITIES TO AP09 ENDING 5/30/2021 @ 91.2% OF THE YEAR								
		A	B		C	D	E	F	H
		ACTUAL	ADOPTED BUDGET	ADJUSTED BUDGET	CURRENT PERIOD FY 21			% of	Yr-End Projection
	DESCRIPTION	FY 20	FY 21	FY 21	EXP/REV	ENC	TOTAL	Act/Bud	6/30/2021
1	**NON CAPITALIZED EXPENDITURES:**								
2	General Improvement Maintenance	0.0	0.0	0.0	0.0	0.0	0.0		0.0
3	Reservoir Safety Improvement	42.8	0.0	0.0	0.0	0.0	0.0		0.0
4	SCADA Improvement	0.0	15.0	15.0	0.0	0.0	0.0	0.0%	10.0
5	Sub-Total Non Capitalized Expenditures	42.8	15.0	15.0	0.0	0.0	0.0		10.0
6	**WATER SYSTEM IMPROVEMENT:**								
7	General System Improvements	0.0	115.0	115.0	(0.0)	0.0	(0.0)	0.0%	63.7
9	Resv. No. 2 - Floor Repair, Re-Line, & Coat 2MG tank	129.5	195.0	297.5	450.4	2.9	453.3	151.4%	453.3
10	Sub-Total Water System Improvement	129.5	310.0	412.5	450.4	2.9	453.3		517.0
11	**WATER CONSTRUCTION PROJECT**								
12	1.74 MG Reservoir with piping within Zone 1924	89.6	275.0	686.5	26.1	0.0	26.1	3.8%	180.5
14	Sub-Total Water Water Constructrion Project	89.6	275.0	686.5	26.1	0.0	26.1	9.5%	180.5
15	**Total Expenditures**	**261.9**	**600.0**	**1,114.0**	**476.5**	**2.9**	**479.4**		**707.5**
16	**REVENUES**								
17	Interest Earning	55.4	46.9	46.9	12.5	0.0	12.5	26.7%	46.9
18	Capital Improvement Chrgs	0.9	1.4	1.4	0.5	0.0	0.5	38.6%	1.4
	Loan Proceed		0.0	0.0	0.0	0.0	0.0		0.0
19	**Total Revenues**	**56.3**	**48.3**	**48.3**	**13.1**	**0.0**	**13.1**	**27.1%**	**48.3**
20	**Net Capital Fund**	**(205.6)**	**(551.7)**	**(1,065.7)**	**(463.4)**	**(2.9)**	**(466.3)**		**(659.2)**
21	Beginning Capital Fund Balance	1,700.2	1,599.0	1,599.0	1,599.0		1,599.0		1,599.0
22									
23	Depreciation Expense	104.1	104.2	104.2	95.5		95.5		104.2
24	**Ending Capital Fund Balance Reserve**	**1,599.0**	**1,151.4**	**637.4**	**1,231.1**		**1,228.1**		**1,043.9**
25									
26									

	SUMMARY OF CAPITAL FUND BALANCE	Capital	Funded	Total
28		Acq Fund	Depr Fund	Cap Fund
29	Beginning Fund Balance	470.6	1,128.4	1,599.0
30	Revenue & Depreciation	48.3	104.2	152.5
31	Expenditure & Encumbrances	(527.0)	(180.5)	(707.5)
32	**Ending Fund Balance**	**(8.1)**	**1,052.0**	**1,043.9**

Waterworks District #17 - Bell Canyon
Water Cost vs Water Sales

Month		Production	Water Cost	Usage	Water Sales
Jul	Actual	112.3	$200,881.99	99.0	$271,822.59
Aug	Actual	127.8	$226,157.17	136.8	$371,922.90
Sep	Actual	116.2	$211,103.62	112.2	$308,492.75
Oct	Actual	109.9	$197,116.22	130.1	$352,107.65
Nov	Actual	94.6	$174,360.23	88.3	$241,488.56
Dec	Actual	67.8	$128,030.01	79.6	$215,927.86
Jan	Actual	72.7	$141,349.56	85.1	$240,160.52
Feb	Actual	66.3	$134,536.74	53.0	$158,922.21
Mar	Actual	68.2	$135,279.68	64.6	$191,035.96
Apr	Actual	75.7	$143,482.37	95.2	$274,897.89
May	Estimate	94.1	$175,403.63	72.9	$224,549.22
Jun	Estimate	71.3	$175,403.63	68.2	$211,863.29
Accruals	Estimate		$61.04	(25.4)	-$73,551.38
Totals		**1,077.0**	**$2,043,165.88**	**1,059.7**	**$2,989,640.02**
				-1.60%	

Waterworks District #17 - Bell Canyon
Budget to Actual Details
As of April 30, 2021

Miscellaneous Expenditures	FY20-21 Adopted Budget	FY 20-21 Actual to Date thru April	FY20-21 Yr-End Prj
Misc. Expense	**$50,500.0**	**$19,996.7**	**$52,700.0**
Aqua Metric-AdvMeter Infra Ani	$20,000.0	$4,220.0	$17,500.0
Bad debts , Water Quality Repc	$1,000.0	$0.0	$0.0
Collection Agencies (725 Custo	$1,200.0	$879.8	$1,200.0
County Counsel Charges	$6,000.0	$7,018.0	$7,000.0
General Insurance Allocation IS	$1,000.0	$492.0	$1,000.0
Mail Center ISF	$4,100.0	$1,349.2	$4,100.0
Minor Equipment Others	$5,000.0	($12.3)	$6,100.0
Misc. Expense	$0.0	($40.6)	$3,600.0
Printing of billings	$4,000.0	$3,190.4	$4,000.0
Purchasing Charges ISF	$1,300.0	$1,080.7	$1,300.0
Radio Comm ISF	$4,100.0	$0.0	$4,100.0
Rent And Leases Equipment Nc	$2,000.0	$1,093.2	$2,000.0
Voice Data ISF	$800.0	$726.3	$800.0
Grand Total	**$50,500.0**	**$19,996.7**	**$52,700.0**

O&M Labor Cost Detail	FY20-21 Adopted Budget	FY 20-21 Actual to Date thru April	FY20-21 Yr-End Prj
O&M Labor	**$571,100.0**	**$318,732.3**	**$451,505.1**
O & M Billing allocation	$56,400.0	$30,900.0	$46,023.6
O & M Labor charges	$511,700.0	$287,832.3	$402,481.5
Real Estate Services	$3,000.0	$0.0	$3,000.0
Grand Total	**$571,100.0**	**$318,732.3**	**$451,505.1**

Follow Up Item

Fund2150 Org6430

WATERWORKS DISTRICT NO. 17 (Fund E120 - Unit 4330)
YEAR END PROJECTIONS

Prepared by : Marielou Chua
Reviewed by : _____
Reviewed by : _____

	Prj#WS	Prj#WS	Prj#WS	Prj#WS	Prj#WS	Prj#WS	Prj#WS	Prj#WS	Prj#WS	Billing Syst.	Real			
	O & M	BOOSTER STAT	O & M MAINSLINES	PRESS REDUCE	RESERVOIR BELL CYN	SP O&M PROJECTS	ENG' TECH SERVICES	WTR SYS ANALYSIS	SAMPLE, RPRTG					
BUDGET -$ 319,900	37100	37150	37160	37170	37180	37400	37402	37405	37420	Allocation	Estate	adj	total	FMS
ap01 - pp14, pp15	18,596.94				13,096.05	2,788.06	812.55		826.35				36,119.95	36,119.95
ap02 - pp16, pp17	9,519.42				10,184.57	1,985.95	650.04		966.49	10,319.10			33,625.57	33,625.57
ap03 - pp18,19	18,017.70				13,908.78	1,718.21	521.35	1,995.74	1,642.68				37,804.46	37,804.46
ap04 - pp20,21	11,252.91				30,083.69	2,100.90	179.29		1,791.72				45,408.51	45,408.51
ap05 - pp22,23	19,278.90				3,392.93	1,927.86	1,374.52		212.59				26,186.80	26,186.80
ap06 - pp24, 25	32,059.52			237.43	268.92	3,860.47	1,741.49		694.09	10,319.10			49,181.02	49,181.02
ap07 - pp26,01,2	14,947.53				0.00	853.16			1,437.55	10,319.10			27,557.34	27,557.34
ap08 - pp03,04	12,039.69					2,867.53	1,792.80		1,769.06				18,469.08	18,469.08
ap09 - pp05,06	10,677.65				59.77	2,515.96	1,331.77		1,271.20				15,856.35	15,856.35
ap10 - pp07,08	12,538.69			746.41	358.56	2,457.57	418.33		1,684.54	10,319.10			28,523.20	28,523.20
ap11 - pp9,10													0.00	
ap12 - pp11,12													0.00	
AP13-PP13,14													0.00	
Total WW	158,928.95	0.00	0.00	983.84	71,353.27	23,075.67	8,822.14	1,995.74	12,296.27	41,276.40	0.00	0.00	**318,732.28**	**318,732.28**
Real Estate Services (various projects)														
ap01 - RE													**0.00**	**0.00**
ap09 - RE													**0.00**	**0.00**
ap10 - RE													**0.00**	**0.00**
ap11 - RE													**0.00**	**0.00**
ap12 - RE													**0.00**	**0.00**
Total RE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
grand total	**158,928.95**	**0.00**	**0.00**	**983.84**	**71,353.27**	**23,075.67**	**8,822.14**	**1,995.74**	**12,296.27**	**41,276.40**	**0.00**	**0.00**	318,732.28	**318,732.28**
AVE PER PP														
21.7857													**12,735.68**	Average Labor Charges/PP
REM #PP TO YE													**318,732.28**	Actual/VCFMS
4.2857													**114,581.48**	Est to YE Labor
FIXED										**15,123.60**			**15,123.60**	Est to YE Billing Alloc
REAL ESTATE											**3,000.00**	**0.00**	**3,000.00**	Est to YE Real Estate
PROJ TOTAL													**451,437.36**	PROJECTED TOTAL FOR FY21

WATERWORKS DISTRICT #17									
FUND E120, ORG 4330									
BUDGET REQUEST FOR FY 2022			FY 2022 BUDGET REQUEST						
		REQUEST	O & M	O&M	CAP(A)	CAP(R)	REQUEST	%	$
ACCT NO.	SERVICE REQUIRED AND JUSTIFICATON	TOTAL	Detail	Total		(DEPR)	TOTAL	VARIANCE	VARIANCE
	PROJECTED ENDING FUND BAL/AP8FY21 FSR	1,955.80	**1,169.1**	**1,130.6**	**0.0**	**1,058.7**	**2,189.3**		
	DEPRECIATION EXPENSE RECOGNIZED	(104.10)		**0.0**	**0.0**	**(104.2)**	**(104.2)**		
	FIXED ASSETS CAPITALIZED IN FMS	747.40		**0.0**	**682.8**	**0.0**	**682.8**		
	FMS RECONCILED FUND BALANCE	**2,599.1**	**1,169.1**	**1,130.6**	**682.8**	**954.5**	**2,767.9**		
	TRANSFERs (To balance budget purpose)	-		**0.0**			-		
	RESERVED FOR FUTURE YEAR FINANCING	(2,030.61)	**(1,150.3)**	**(1,111.8)**	**(281.09)**	**(939.50)**	**(2,332.4)**		
	BEGINNING FUND BALANCE	**568.49**	**18.8**	**18.8**	**401.7**	**15.0**	**435.5**		
	REVENUE								
8911	INVESTMENT INCOME	46.9			6.9		6.9	-85%	(40.0)
	Avg Cash $1,378k X .50% = $6,890								
9191	STATE AID FOR DISASTER	0.0	0.0	0.0			-	#DIV/0!	0.0
	FEMA-Wolsey fire								
9421	**SPECIAL ASSESSMENTS**	**7.0**	**6.9**	**6.9**			**6.9**	**-1%**	**(0.0)**
	Special Assessment Tax Rolls,								
	$46.82 per acre standby charge for								
	availability of water (46.82 x 149.115 acres)								
9613	METER SALES AND INSTALL FEE	1.6	1.6	1.6			1.6	0%	0.0
9614	**WATER SALES**	**2,859.8**		**3,338.0**			**3,338.0**	**17%**	478.2
	Est. 1,128AF @ Current Rates		**3,054.5**						
	Service Charges		**283.5**						
9615	CAPITAL IMPR CHARGES	1.4	0.0	0.0	1.4		1.4	0%	0.0
9708	PERMIT FEES	0.4	0.4	0.6			0.6	50%	0.2
9708	LINE EXTENSION FEE		0.2						
9751	**OTHER SALES**	**2.3**		**6.9**			**6.9**	**194%**	**4.5**
	Fire Protection; Consumption Surcharge		**6.9**						
9790	MISCELLANEOUS REVENUE	27.0		27.0			27.0	0%	0.0
	Late Charges, NSF & other Adjustments		27.0						
9843	LOAN PROCEEDS	275.0			625.0		625.0	127%	350.0
	1.74 MG Reservoir with piping within Zone 1924								
	TOTAL REVENUE	**3,221.4**	**3,381.0**	**3,381.0**	**633.3**	**0.0**	**4,014.3**	24.6%	792.9
	TRANSFER FROM CONS TO O&M	**0.0**		**0.0**			-		
	FUNDS AVAILABLE	**3,789.9**	**3,399.8**	**3,399.8**	**1,035.0**	**15.0**	**4,449.8**	17.4%	659.9
	EXPENDITURES								
2032	VOICE DATA ISF	0.8	1.2	1.2			1.2	51%	0.4
2033	RADIO COMM ISF	4.1	4.1	4.1			4.1	0%	0.0
2071	GENERAL INSURANCE ALLOCATION ISF	1.0	1.1	1.1			1.1	10%	0.1
2101	EQUIPMENT MAINTENANCE	0.5		0.5			0.5	0%	0.0
	Base Station		0.5						
2102	EQUIPMENT MAINTENANCE CONTRACTS	155.5		127.4			127.4	-18%	(28.1)
	AMI Maintenance & Support		3.0						
	Valve Replacement		40.0						
	Adjust Valve Stacks		8.0						
	Emergency Repairs		53.0						

WATERWORKS DISTRICT #17									
FUND E120, ORG 4330									
BUDGET REQUEST FOR FY 2022			FY 2022 BUDGET REQUEST						
		REQUEST	O & M	O&M	CAP(A)	CAP(R)	REQUEST	%	$
ACCT NO.	SERVICE REQUIRED AND JUSTIFICATON	TOTAL	Detail	Total		(DEPR)	TOTAL	VARIANCE	VARIANCE
	Welding		6.0						
	SCADA Integrating & Troubleshooting (HP mainline monitoring)		10.0						
	Instrument Mainteance (HACH)		0.0						
	Utility Billing System Maint (4451 3/29/21)		7.4						
2104	MAINTENANCE SUPPLIES	40.0		40.0			40.0	0%	0.0
	CLA Valves / PR Station Maint.		7.0						
	Gate Valves		14.0						
	Piping		8.0						
	Construction Materials		5.0						
	Flex Couplings		4.0						
	Meter Boxes		2.0						
	Others		0.0						
2112	BUILDINGS AND IMPROVEMENTS MAINTENANCE	15.0		0.0			15.0	0%	0.0
	Reservoirs Overhead Fill/Mixer					0.0			0.0
	Reservoir & Facilities Security/Fencing		0.0			15.0			0.0
	SCADA Upgrades-Dapplegray, Zanja		0.0	0.0		0.0			0.0
2158	COST ALLOCATION PLAN CHARGES	16.1		9.0			9.0	-44%	(7.1)
	BDM		9.0						0.0
2159	MISCELLANEOUS EXPENSE	8.5		8.5			8.5	0%	0.0
	Bad debts , Water Quality Reports, Misc.		1.0						
2159	FEDERAL STATE PERMITS AND FEES								
	CONS(2.0) APCD(5.0)		5.0						
2159	CROSS CONNECTION FEES								
	RMA-EHD Estimated hours		0.5						
2159	CONSERVATION PROGRAM								
	Water Audits & Education		2.0						
2162	PRINTING AND BINDING NON ISF	0.0		0.0			-	0%	0.0
	Customer notices		0.0						0.0
2164	MAIL CENTER ISF	4.1	3.6	3.6			3.6	-11%	(0.5)
2165	PURCHASING CHARGES ISF	1.3		1.1			1.1	-15%	(0.2)
	FY22 BDM $1,102		1.1						0.0
2166	GRAPHICS CHARGES ISF	3.2		3.2			3.2	0%	0.0
	Printing of billings		3.2						0.0
2168	STORES ISF	0.8	0.8	0.8			0.8		
2183	ENGINEERING AND TECHNICAL SURVEYS	52.0		27.0			27.0	-48%	(25.0)
	Reservoir Inspections		6.0						
	Sedaru Water Loss		21.0						
2185	ATTORNEY SERVICES	6.0		6.0			6.0	0%	0.0
	COUNTY COUNSEL CHARGES		6.0						0.0
2188	LAB SERVICES	5.0		5.0			5.0	0%	0.0
	Outside lab testing, water analysis(contract)		5.0						0.0
2191	COLLECTION AND BILLING SERVICES	1.2		2.8			2.8	133%	1.6
	Collection Agencies (708 Customers)		2.8						0.0

WATERWORKS DISTRICT #17									
FUND E120, ORG 4330									
BUDGET REQUEST FOR FY 2022			FY 2022 BUDGET REQUEST						
		REQUEST	O & M	O&M	CAP(A)	CAP(R)	REQUEST	%	$
ACCT NO.	SERVICE REQUIRED AND JUSTIFICATON	TOTAL	Detail	Total		(DEPR)	TOTAL	VARIANCE	VARIANCE
2194	SOFTWARE MAINT AGREEMENTS	20.0	20.0	20.0			20.0	0%	0.0
	1128								
2199	OTHER PROFESSIONAL AND SPECIALIZED NON ISF	24.0		30.0			30.0	25%	6.0
	CCR's		5.0						0.0
	Alternate Source of Supply		25.0						0.0
	AMI Annual RNI SaaS (8), and Annual Sensus "Analytics" (101)		0.0						
2204	MANAGEMENT AND ADMIN SURVEY ISF	101.2		120.1			120.1	19%	18.9
	PWA Central Services Allocation/Rprt 3/26/19		103.9						0.0
2204	PWA ENGINEERING CONTRACT SERVICES		16.2						
2205	PUBLIC WORKS ISF CHARGES	571.1		578.6			578.6	1%	7.5
	PW Service Charges		522.9						0.0
	O & M Billing allocation- rpt 3/29/21		53.3						0.0
	Real Estate Services (4411-4412FY22 ReqBudget)		2.4						0.0
2231	RENT AND LEASES EQUIPMENT NONCOUNTY OWN	2.0	2.0	2.0			2.0	0%	0.0
2261	COMPUTER EQUIPMENT (<$ 5,000)	8.0	8.0	8.0			8.0	0%	0.0
	GIS Tablets		-						
	GIS Asset Mgmt		-						
2264	MINOR EQUIPMENT	35.0		24.0			24.0	-31%	(11.0)
	Meter installations, replacements & changeouts:		24.0						0.0
			-						
2312	WATER SUPPLY COST	2,015.5		**2,264.1**			**2,264.1**	12%	248.6
	1200 AF @ Calleguas Rates		**2,264.1**						0.0
2313	WATER AND SEWER SYSTEM POWER	1.0		3.0			3.0	200%	2.0
	Lighting of PR Stations		1.5						
	Reservoir site power		1.5						0.0
	SUBTOTAL SERVICES AND SUPPLIES	**3,092.9**	**3,291.1**	**3,291.1**	**0.0**	**15.0**	**3,306.1**	6.9%	213.2
3611	DEPRECIATION EXPENSE	104.2	104.2	104.2			104.2	0%	(0.0)
4112	WATER SYSTEM IMPROVEMENT	310.0					200.0	-35%	(110.0)
	Resv. No. 2 - Floor Repair, Re-Line, & Coat 2MG tank				0.0				
	Flintlock PR & Hackmore PR (2)								
	SCADA "Hop" Tower								
	General System Improvements				200.0				
4114	WATER CONSTRUCTION PROJECT	275.0					745.0	171%	470.0
	1.74 MG Reservoir with piping within Zone 1924				625.0				0.0
	Chrlorine Generation				120.0				
4601	OTHER EQUIPMENT>5000						90.0		
	AMI Zone Meter 3@$30K)		0.0	0.0	90.0				
5111	CONTRIBUTIONS TO OTHER FUNDS	7.8		4.5			4.5	-42%	(3.3)
	Contrib to 4451 for Fixed Assets (rpt 4/22/20)		4.5						0.0
6101	CONTINGENCIES	0.0		0.0			-	0%	0.0
	TOTAL EXPENDITURES & CONTINGENCY	**3,789.9**	**3,399.8**	**3,399.8**	**1,035.0**	**15.0**	**4,449.8**	**17%**	**659.9**
	NET COST	568.5	18.8	18.8	401.7	15.0	435.5		

4. DISTRICT STAFF REPORT

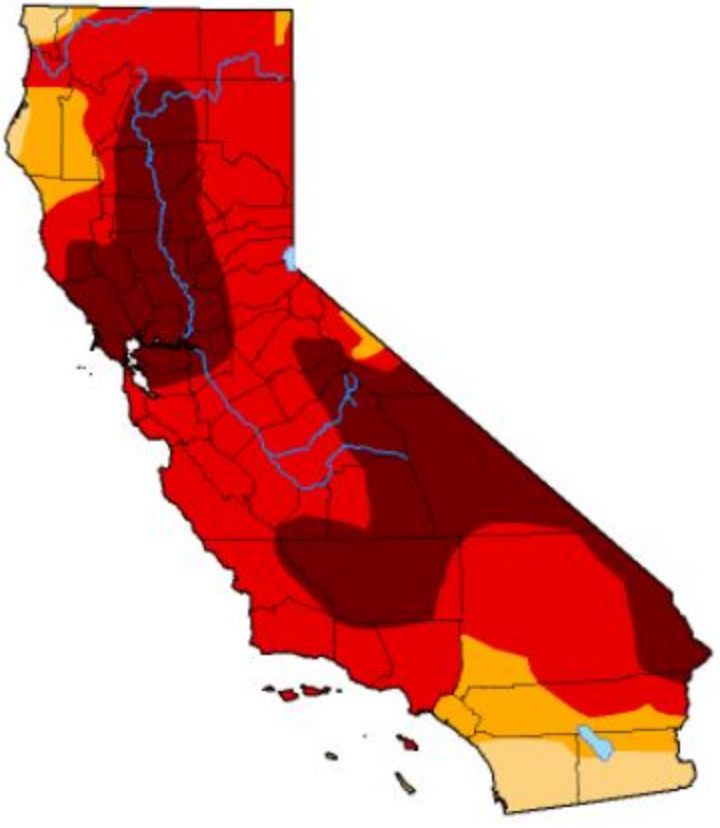
B. WATER QUALITY REPORT – A report regarding water quality complaints, if any, received by the District since the previous CAC meeting and how these complaints were resolved.

4. DISTRICT STAFF REPORT

C. WATER SUPPLY CONDITIONS – An update on water supply conditions within the District, Southern California, and throughout the State.

Drought Classification

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data



June 29, 2021

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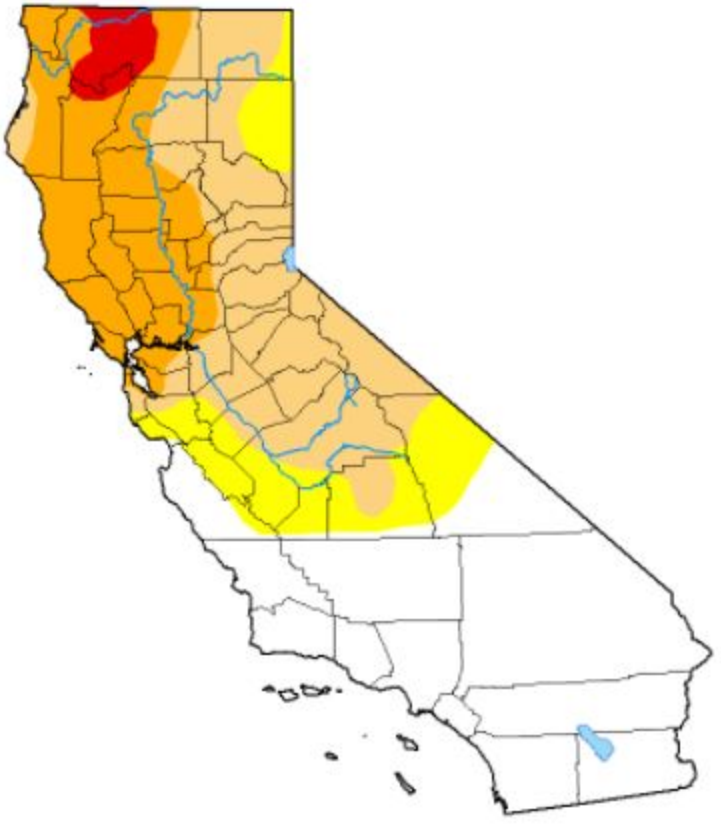

June 30, 2020

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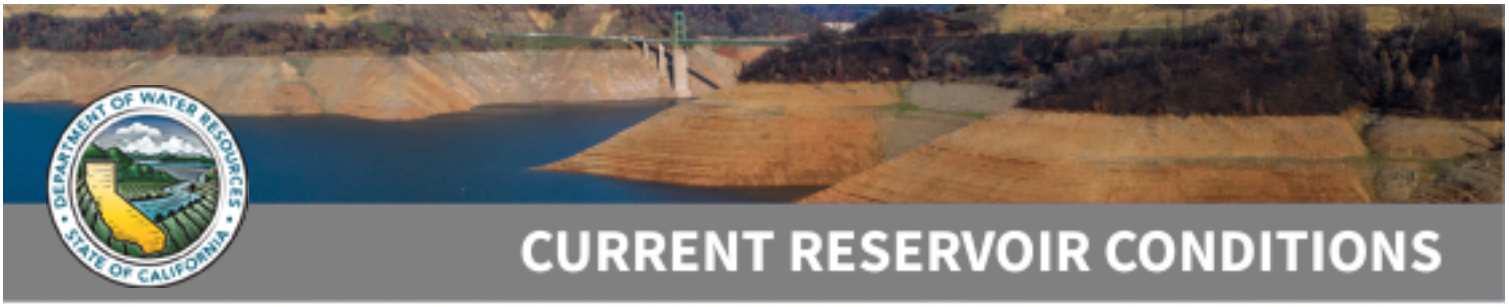
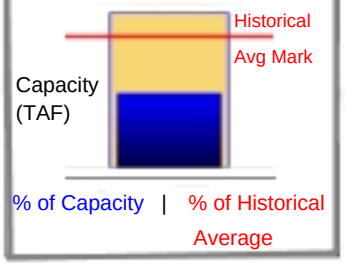
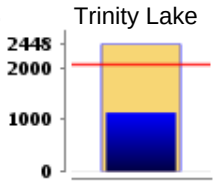


SELECTED WATER SUPPLY RESERVOIRS

Midnight: July 5, 2021

LEGEND
Red Line: Historic level for date
Gold Bar: Total Reservoir Capacity
Blue Bar: Storage Level for date





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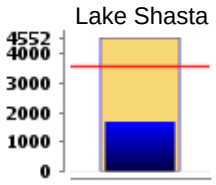

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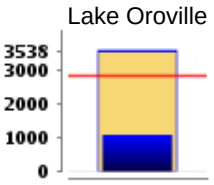

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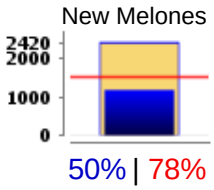

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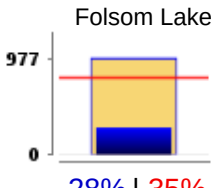

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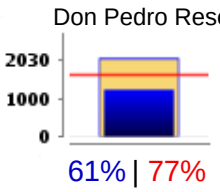

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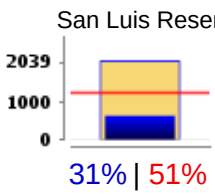

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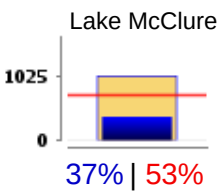

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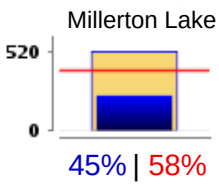

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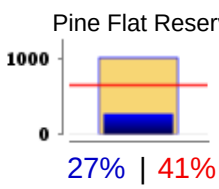

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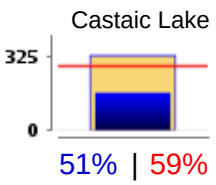

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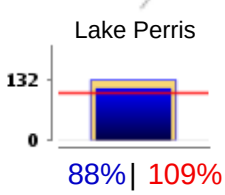

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4. DISTRICT STAFF REPORT

D. CALLEGUAS MUNICIPAL WATER DISTRICT / METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA UPDATE – An update on decisions and rulings by these agencies which may impact the District.

4. DISTRICT STAFF REPORT

E. UPDATE ON AVENUES OF PUBLIC OUTREACH – How the District is reaching out to its customers concerning water conservation.

4. DISTRICT STAFF REPORT

F. BOARD LETTER TRACKER - UPDATE ON VENTURA COUNTY BOARD OF SUPERVISORS AGENDA ITEMS RELATED TO THE DISTRICT – A status report on what items District staff has recently presented, or may be presented, before the Ventura County Board of Supervisors.

- 9/14/2021 – Engineering and Development Updates (All Waterworks Districts)
- 9/14/2021 – Rules and Regulations Updates (All Waterworks Districts)

4. DISTRICT STAFF REPORT

G. UPDATE ON ADVANCED METERING INFRASTRUCTURE (AMI) IMPLEMENTATION - The AMI project is an integrated system of smart meters, communications networks, and data management systems that enables two-way communication between utilities and customers which is being implement within the District. The estimated cost to the District is $53,000.

4. DISTRICT STAFF REPORT

H. DIRECTOR'S INFORMATIONAL ITEMS – Provides the opportunity for the Director to present items that are not within the subject matter of the District's Staff Report.

- Aged Report
- COVID-19 Waived Fees Report
- Draft Woolsey Canyon Alternative Water Supply Study
- District 17, Bell Canyon Quarterly Operations and Maintenance Report

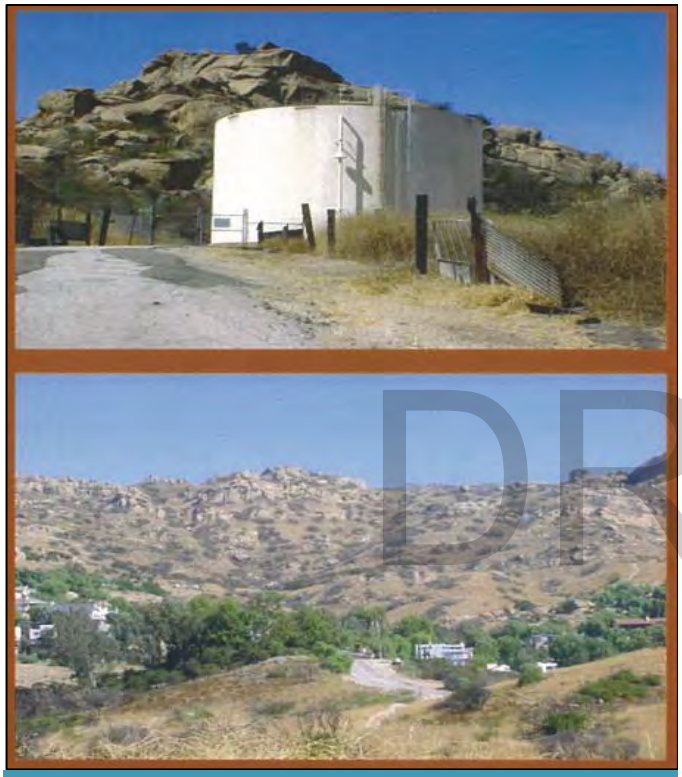
Aged Report

Row Labels	Sum of Y_CURRE	Sum of 0-30 Days	Sum of 31-60 Days	Sum of 61-90 Days	Sum of 91-120 Days	Sum of 121+ Days	61 > DAYS
CUE	**$593.28**	**$365.00**	**$228.28**	**$0.00**	**$0.00**	**$0.00**	$0
Commercial	$483.54	$290.13	$193.41	$0.00	$0.00	$0.00	
Institutional	$109.74	$74.87	$34.87	$0.00	$0.00	$0.00	
VCWWD No. 1	**$2,172,207.72**	**$1,887,506.30**	**$84,930.50**	**$48,949.42**	**$28,039.14**	**$122,782.36**	$199,771
Agricultural	$444,396.04	$381,597.75	$8,642.36	$9,050.26	$5,326.60	$39,779.07	
Commercial	$199,738.70	$186,081.92	$4,213.52	$3,676.03	$1,454.19	$4,313.04	
Industrial	$26,219.31	$15,551.62	$3,807.92	$2,747.36	$1,936.38	$2,176.03	
Institutional	$139,678.49	$139,678.49	$0.00	$0.00	$0.00	$0.00	
Residential	$1,267,980.57	$1,070,401.91	$68,266.70	$33,475.77	$19,321.97	$76,514.22	
Residential Multi Family	$94,194.61	$94,194.61	$0.00	$0.00	$0.00	$0.00	
VCWWD No. 16	**$196.68**	**$196.68**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	$0
Residential	$196.68	$196.68	$0.00	$0.00	$0.00	$0.00	
VCWWD No. 17	**$311,769.63**	**$263,850.10**	**$17,871.69**	**$5,977.76**	**$3,491.76**	**$20,578.32**	$30,048
Commercial	$4,128.09	$4,128.09	$0.00	$0.00	$0.00	$0.00	
Industrial	$21,755.94	$21,755.94	$0.00	$0.00	$0.00	$0.00	
Institutional	$1,199.61	$460.20	$739.41	$0.00	$0.00	$0.00	
Residential	$284,685.99	$237,505.87	$17,132.28	$5,977.76	$3,491.76	$20,578.32	
VCWWD No. 19	**$208,017.95**	**$191,568.09**	**$11,078.15**	**$2,986.90**	**$1,113.33**	**$1,271.48**	$5,372
Agricultural	$89,856.69	$86,450.08	$3,406.61	$0.00	$0.00	$0.00	
Commercial	$5,173.04	$4,803.88	$139.81	$157.19	$72.16	$0.00	
Industrial	$2,108.93	$2,108.93	$0.00	$0.00	$0.00	$0.00	
Institutional	$2,213.27	$2,213.27	$0.00	$0.00	$0.00	$0.00	
Residential	$106,703.69	$94,029.60	$7,531.73	$2,829.71	$1,041.17	$1,271.48	
Residential Multi Family	$1,962.33	$1,962.33	$0.00	$0.00	$0.00	$0.00	
VCWWD No. 38	**$442,425.41**	**$424,579.79**	**$12,356.97**	**$3,373.93**	**$765.29**	**$1,349.43**	$5,489
Commercial	$161,299.57	$161,299.57	$0.00	$0.00	$0.00	$0.00	
Institutional	$616.13	$616.13	$0.00	$0.00	$0.00	$0.00	
Residential	$280,509.71	$262,664.09	$12,356.97	$3,373.93	$765.29	$1,349.43	
Grand Total	**$3,135,210.67**	**$2,768,065.96**	**$126,465.59**	**$61,288.01**	**$33,409.52**	**$145,981.59**	$240,679
						% 60 > to total	8%
						Last month	8%

COVID-19 Waived Fees Report

Sum of Y_A Column Labels	2020									
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Row Lab										
01	($18,555)	($50,968)	($33,794)	($55,684)	($45,894)	($54,836)	($100,101)	($59,998)	($75,601)	($94,004)
16	($30)	($50)	($40)	($40)	($10)	($20)	($10)		($10)	($30)
17	($2,606)	($3,684)	($6,178)	($5,535)	($6,930)	($5,545)	($7,579)	($6,697)	($10,423)	($5,584)
19	($2,467)	($6,051)	($5,358)	($4,722)	($8,165)	($6,160)	($5,284)	($9,495)	($6,955)	($7,104)
38	($1,464)	($2,741)	($1,277)	($3,519)	($3,836)	($3,827)	($7,451)	($5,039)	($8,028)	($3,667)
Grand Tota	**($25,123)**	**($63,494)**	**($46,647)**	**($69,499)**	**($64,835)**	**($70,388)**	**($120,425)**	**($81,229)**	**($101,017)**	**($110,389)**

2021						Grand Total
Jan	Feb	Mar	Apr	May	Jun	
($89,827)	($79,022)	($76,583)	($62,923)	($89,437)	($84,132)	($1,071,360)
	($30)	($70)		($40)	($70)	($450)
($8,256)	($7,528)	($9,134)	($8,828)	($11,796)	($9,224)	($115,526)
($13,216)	($7,535)	($7,012)	($9,470)	($3,040)	($5,437)	($107,471)
($6,806)	($7,169)	($7,733)	($6,260)	($6,426)	($4,629)	($79,873)
($118,104)	**($101,285)**	**($100,532)**	**($87,481)**	**($110,739)**	**($103,492)**	**($1,374,680)**



Alternative Water Supply Study

Bell & Woolsey Canyons

Las Virgenes Municipal Water District
Ventura County Waterworks District 17

June 11, 2021

hdrinc.com 200 E Santa Clara St., Suite 220, Ventura, CA 93001-2795

Table of Contents

Executive Summary

This study examines alternatives for supplying water from the Las Virgenes Municipal Water District (LVMWD) to Ventura County Waterworks District 17 (District 17). District 17 serves the Bell Canyon Community and the Rocketdyne complex, across the county line from the LVMWD service area. District 17 is also the current source of water for LVMWD customers in Woolsey Canyon.

This screening-level study investigates four alternatives for providing an alternative (emergency or supplemental) supply to District 17 from the LVMWD system.

Alternative 1	Woolsey Canyon Road
Alternative 2A	Bell Canyon Boulevard, from Valley Circle Boulevard to Hacienda Road
Alternative 2B	Similar to Alternative 2A, except would also serve Tentative Tract 73766
Alternative 2C	Similar to Alternative 2B, except would connect to District 17 system at Appaloosa Lane
Alternative 2D	Similar to Alternative 2B, except with shared ownership of a proposed Bell Canyon Tank 3

Each of these alternatives would draw water from the LVMWD system via the "30-inch Conduit" in Valley Circle Boulevard and require a high-lift pumping station to deliver water to existing tanks in the Woolsey or Bell Canyon communities.

Alternatives 2B, 2C, and 2D hinge on the development of Tentative Tract 73766. At the current time, the status of this development is unknown. Due to the lack of response by the developer to recent inquiries, it should be assumed that the developer's participation is unlikely in the foreseeable future.

Based on the analysis presented in this report, Alternative 1 appears to be the most cost-effective and benefits both agencies, by improving the water system reliability to both the Bell Canyon and Woolsey Canyon communities.

Should the agencies determine that Alternative 1 appears feasible, the following steps are suggested:

(1) Develop a preliminary memorandum of understanding

(2) Prepare a preliminary engineering report, including a CEQA initial study.

(3) Develop a formal interagency agreement addressing financing, project management, and operations.

Background

The reliability of the water supply to Bell Canyon, an unincorporated community in eastern Ventura County, has been a concern for many years. The supply to Bell Canyon may be jeopardized by an extended outage of a 5-mile transmission pipeline that crosses rugged, mountainous terrain, or by an outage at any one of three pumping stations that lifts the water from Simi Valley. Recent wildfires in the area have highlighted the risks associated with water supply disruptions.

The supply originates at the Calleguas Municipal Water District System, near the west portal of the Santa Susana Tunnel. Water is lifted from a gradient of about 1,100 feet to over 2,000 feet using a series of pumping stations and pipelines that are owned and operated by Ventura County Waterworks District No. 8 (City of Simi Valley). A 0.42 million gallon (MG) tank, described in this report as the "Simi Tank"[1], resides at the top of this system. This tank is at a hydraulic grade line (HGL) of 2,106 feet.

At a master meter south of the Simi Tank, District 17 assumes responsibility for a system that delivers water to Bell Canyon, Boeing's Rocketdyne complex, a Mountains Recreation and Conservation Agency (MRCA) meter, and LVMWD customers in Woolsey Canyon. Tanks in this system are shown in Table 1.

Table 1. Tanks Receiving Water from District 17 via District 8

Tank Name	Approx. HGL (ft)	Size (MG)	Tank Owner
Rocketdyne	1,945	0.1	Boeing
Upper Woolsey	1,845	0.5	LVWMD
Bell Canyon 1	1,924	1.0	District 17
Bell Canyon 2	1,924	2.0	District 17

In a ***2010 Water System Master Plan Report*** prepared by Penfield & Smith, both the District 8 conveyance system and Bell Canyon storage were determined to be adequately sized for expected buildout demands served by this system, but concerns were expressed regarding system reliability. With three pumping stations operating in series, and a non-redundant transmission pipeline, the system is particularly vulnerable.

Because water supply to Woolsey Canyon currently comes from the same system, LVMWD shares similar reliability concerns. Although LVMWD has a storage tank (Upper Woolsey) at the top of the canyon, the pump station and main needed to connect this isolated area to the rest of the LVMWD system has never been constructed due to their cost. Current plans do not foresee a need for construction of a "Lower Woolsey Tank", which was originally planned to supply water to additional developments, due to restrictions on future development in Woolsey Canyon.

[1] The 2007 Alternative Water Supply Study (Woolsey Canyon) by Boyle Engineering and other documents call this the "Rocketdyne Tank". However, as shown in Table 1, another (smaller, lower) tank has "Boeing" painted on it and is commonly called the "Rocketdyne Tank". District 17 staff refer to the higher tank as the "Simi Tank".

Additionally, the connection from District 17 to the LVMWD system was intended to be temporary, and the agreement between the two agencies allows District 17 to cancel with a one-year notice.

There are also several homes in the nearby Box Canyon area which are inside the LVMWD service area but are too high in elevation to receive water from the LVMWD's 1,135-ft service zone. These homes are currently supplied by District 8 from a gradient of 1,326 feet.

Prior Studies

This study draws from two previous studies prepared by Dan Ellison, the *2007 Alternative Water Supply Study (Woolsey Canyon)*, Boyle Engineering, and the *2017 Preliminary Water System Design Report, Tentative Track 73766 (Bell Canyon)*, HDR. Additionally, information is taken from the *2010 Bell Canyon Area Water System Master Plan*, prepared by Penfield and Smith, and the *2007 and 2014 LVMWD Potable Water Master Plans*, prepared by Boyle Engineering and Kennedy/Jenks Consultants, respectively.

Project Alternatives

Two alternatives for providing an alternative water supply to District 17 from LVMWD have been identified.

- Alternative 1 (Woolsey Canyon Alternative) would connect District 17 and LVMWD via Woolsey Canyon Road. This alternative would also benefit LVMWD, providing a permanent source of water to LVMWD customers in Woolsey Canyon.
- Alternative 2 (Bell Canyon Alternative) would connect District 17 and LVMWD via Bell Canyon Boulevard. This alternative, which has several variations, could also benefit a proposed development east of the Bell Canyon community.

Alternative 1 – Woolsey Canyon Road

In 2007, Boyle Engineering studied the feasibility of a project to jointly serve the needs of District 17 and LVMWD, providing water on an emergency (or intermittent) basis to the Bell Canyon residents of District 17 and on a regular basis to the Woolsey Canyon and upper Box Canyon customers of LVMWD. That study concluded that a high-lift pump station would be needed along with 12,000 feet of 18-inch pipeline [1]. The 2007 study included a proposed location for a pump station and other details for a "preferred" system. Alternative 1 (Woolsey Canyon) is the "preferred project" identified in the 2007 Supply Study, prepared by Boyle Engineering. This system is shown in Figure 1 (generally) and Plate 1 (in detail).

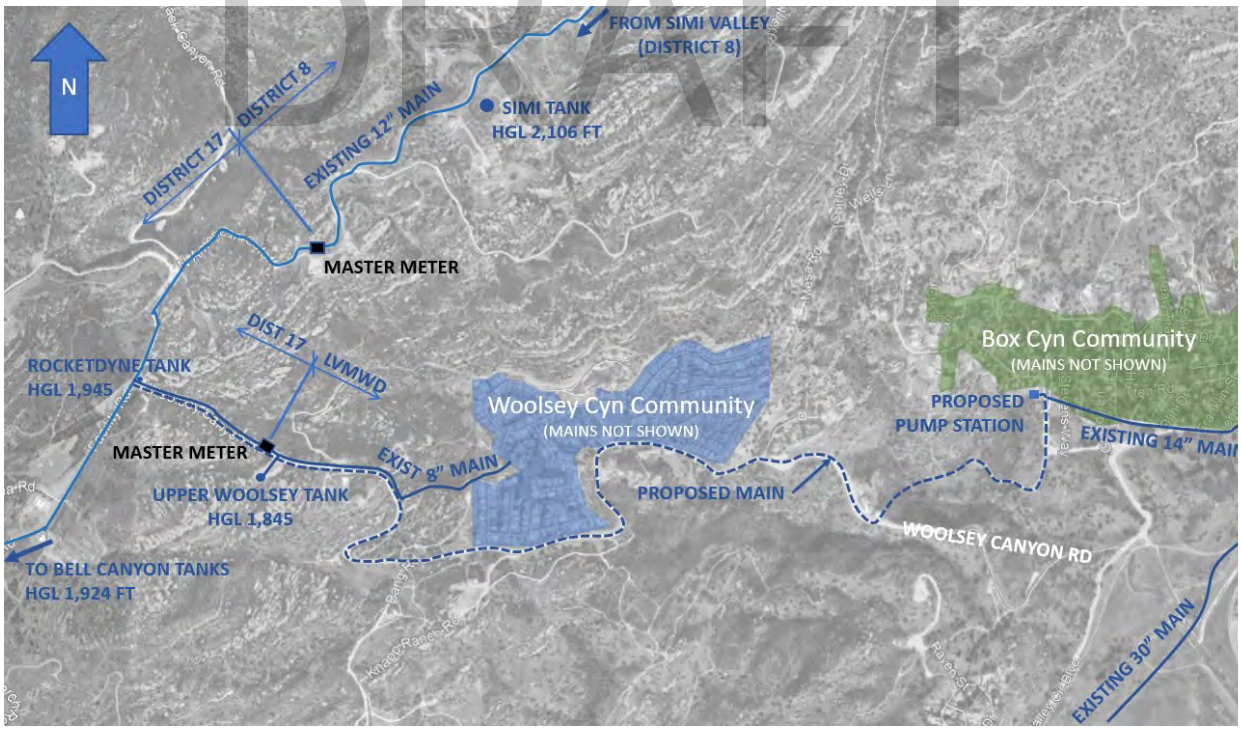


Figure 1. Alternative 1 (Woolsey Canyon)

Alternative 2 – Bell Canyon Boulevard

In 2017, HDR studied concepts for serving Tentative Tract 73766, a proposed development just east of the Bell Canyon Community, in Los Angeles County [2]. To serve the proposed 45-home development, a 12-inch pipeline would connect to LVMWD's "30-inch Conduit" in Valley Circle Boulevard, extending west in Bell Canyon Boulevard to near the county line, where a pump station would be constructed to lift water to the homes at an HGL of approximately 1,780 feet. This proposed new pressure zone would be without a water storage tank, relying on variable-speed pumps and a hydropneumatic tank to regulate pressures and flows. A water storage tank to serve the proposed development was not proposed because a suitable site near the development was not available.

By extending the mains and enlarging the facilities planned for Tentative Tract 73766, the Bell Canyon Community can also be served. This is the basis of Alternative 2, shown in Figure 2. The proposed water system for the Tentative Tract 73766 development is shown in Plate 2.

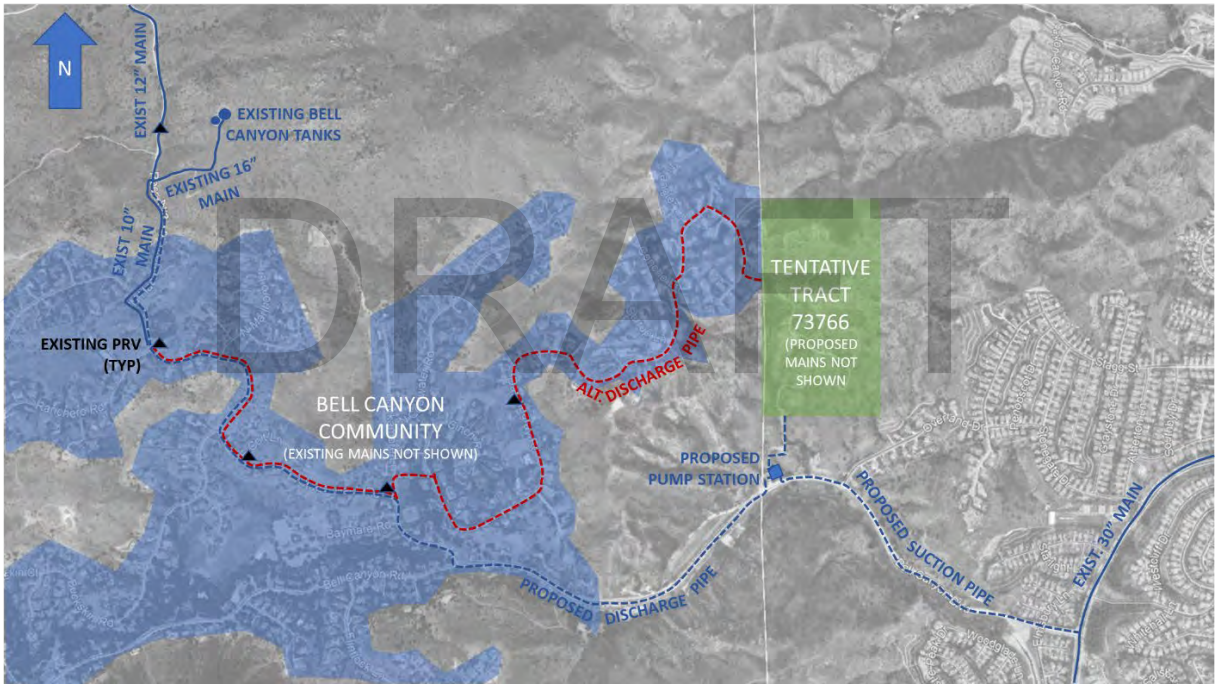


Figure 2. Alternative 2 (Bell Canyon)

Alternative 2 has four variations:

- Alternative 2A would only serve the Bell Canyon Community. This is appropriate if Tentative Tract 73766 does not develop, or development does not occur within a time frame that meets the needs of District 17.
- Alternative 2B involves facilities that serve both Bell Canyon and Tentative Tract 73766.
- Alternative 2C is similar to Alternative 2B, except that the pipeline route is different (dashed red line versus dashed blue line in Figure 2).

- Alternative 2D is similar to Alternatives 2B, except that ownership of a proposed Bell Canyon Tank 3 would be shared. This tank was recommended in the 2010 District 17 Master Plan, prepared by Penfield and Smith to mitigate a storage deficit [3].

Analysis of Demands

In water facility planning, the sizes of production facilities (transmission pipelines, pump stations, tanks, etc.) are typically based on the "maximum day demand" (MDD). This is the estimated volume of water used during the highest-demand day, typically a hot summer day, when irrigation demands are high. Although statistical methods can be used to estimate this demand, more commonly it is conservatively estimated by examining water demand data for recent years.

Additionally, local pipelines must be designed to convey either peak-hour demand (PHD) or a combination of MDD plus fire flow. PHD is typically 2 to 3 times MDD. The portion of PHD that exceeds MDD generally comes from tank storage, where it is available. Fire flow also comes from tank storage, where it is available. The minimum "fire storage" reserve in the tank is based on the fire flow and duration designated by ordinance.

For the alternatives studied in this report, the pumping and pipeline facilities are generally delivering water to storage tanks and to the communities as a whole. Alternatives that include storage tanks can supply water for PHD and fire flow from those tanks. However, the system planned for Tentative Tract 73766 is an exception. Because current plans for this development do not include a storage tank, the pipelines and pumping facility serving this tract will need to be designed for fire flow in addition to the MDD.

Bell Canyon Demands

For Bell Canyon, demands in recent years have been reduced because many homes were lost in the Woolsey Fire of November 2018. These homes are expected to be rebuilt. Additionally, demands need to consider the eventual construction of homes on unrestricted parcels.

Because the alternative water supply to Bell Canyon is intended as an emergency supply (for times when the primary supply is out of service), the facilities could be designed for demands less than MDD, under the assumption that orders to reduce water consumption could be issued. However, this is not recommended. It is precisely in the high-demand periods when the primary system is most likely to be interrupted by power outages and fires, during a Santa Ana wind event.

Table 2 shows various demands for Bell Canyon, both historical and estimated future demands. Based on this table, future demands of **2,660 gpm** will be used for the Bell Canyon community.

Table 2. Various Recent and Projected Bell Canyon Demands

	Average (gpm)	MDD[(1)] (gpm)	Comments
Peak Year (2007)	997	2,490	Includes Boeing and LVMWD Woolsey Canyon demands. Calculated from production data provided this year by District 17 (Appendix 1).
Fire Year – 2018	829	2,070	
Pre-Fire Year – 2017	780	1,950	
Future Build-out	1,056	2,660	2010 District 17 Master Plan [3]
Future Build-out	900	2,250	2007 District 17 Supply Study [1]

(1) MDD based on peaking factor of 2.5 from 2010 District 17 Water Master Plan [3].

Woolsey Canyon Demands

Existing demands in Woolsey Canyon come from a mobile home community that has been relatively stable for more than 20 years. Although the community is surrounded by undeveloped parcels, development of these parcels has been hindered by various restrictions, including concerns of the L.A. County Fire Department regarding escape routes during a wildfire.

Table 3 shows various demands for Woolsey Canyon, both historical and estimated future demands. Based on this table, future demands of **320 gpm** will be used for the Woolsey Canyon community. Although the LVMWD 2014 Master Plan Update projected a much higher MDD demand at build-out, elsewhere in the report it says, “These increases (in demand) are no longer expected to occur due to the surrounding area having been zoned by Los Angeles County as 'significant ecological area’, reducing projections of future demand." [4]

Table 3. Various Recent and Projected Woolsey Canyon Demands

	Average (gpm)	MDD (gpm)	Source
2009 Demands	73	182	2010 District 17 Master Plan [3]
2007 Historical	76	190	2007 LVMWD Master Plan [5]
2014 Historical	78	228	2014 LVMWD Master Plan [4]
Future Build-out	110	320	2007 LVMWD Master Plan [5]
Future Build-out	260	747	2014 LVMWD Master Plan [4]

Tentative Tract 73766

The 2017 Preliminary Water System Design Report for Tentative Tract 73766 prepared by HDR is the basis for the estimated demands for Tentative Tract 73766 shown in Table 4.

Because a storage tank is not currently planned for this development, pipelines and pumping facilities will need to accommodate fire flows and peak-hour demands. The table shows that MDD plus fire flow is larger and therefore governs over PHD.

For Alternative 2D (only), where the ownership of a new tank would be shared between Tentative Tract 73766 and District 17, fire flows and PHD would not apply.

Table 4. Estimated Demands for Tentative Tract 73766

	Average (gpm)	MDD (gpm)	PHD (gpm)
45 single-family homes	34	108	324
General area landscaping	57	182	546
Totals w/o fire flow	118	290	870
Fire flow	n/a	1,500	n/a
MDD plus fire flow	n/a	1,800	n/a

Other Demands

District 17 also serves minor demands from Boeing's Rocketdyne facility and the Mountains Recreation and Conservation District. An environmental cleanup project is currently underway at the Rocketdyne facility, after which the land is expected to be conserved, with little or no demands expected. Table 5 shows demands for these customers to be used in this analysis.

Table 5. Recent and Projected Woolsey Canyon Demands

	Average (gpm)	MDD (gpm)	Source
Boeing Rocketdyne	7	20	2010 District 17 Master Plan [3]
MRCA	1	5	2007 District 17 Supply Study [1]
Totals	8	25	-

Combined Demands

Table 6 shows the combinations of demands that apply to Alternatives 1 and 2. Because Alternative 2D involves tank storage for Tentative Tract 73766, fire flows are not included for this case.

Table 6. Combined Demands for Alternatives 1 and 2

	Alternative 1 (gpm)	Alternative 2A (gpm)	Alternatives 2B & 2C (gpm)	Alternative 2D (gpm)
Bell Canyon Community	2,660	2,660	2,660	2,660
Woolsey Canyon Community	320	-	-	-
Rocketdyne and MRCA	25	-	-	-
Tentative Tract 73766	-	-	1,800	290
Totals	**3,005**	**2,660**	**4,460**	**2,950**
District 17 / LVMWD Spit	89% / 11%	100% / 0%	60% / 40%	90% / 10%

Facility Requirements

To serve the demands shown in Table 6, various sizes of pipelines and pumping facilities are required. In all cases, water must be lifted from the LVMWD 1,135-ft zone to existing tanks that are at Elevation 1,924 feet (or higher).

Pumping Requirements

Criteria for the pumping facility needed for each alternative are shown in Table 7.

For Alternative 1, this analysis assumes water must be lifted to an elevation equal to the Simi Tank (HGL 2,106 feet). However, if a zone valve is added between the Simi Tank and the Rocketdyne Tank, the required lift would be considerably lower (HGL 1,945 feet), provided the zone valve is closed. For a zone valve to function as intended, it would need to be opened quickly in an emergency, without utility power. An alternative electrical supply may be required. Another alternative would involve a check valve that would open when the Simi Tank drains, allowing flows from Woolsey Canyon to reach Bell Canyon.

Table 7. Pumping Requirements

	Alternative 1	Alternative 2A	Alternative 2B	Alternative 2C	Alternative 2D
Pumping Flows (gpm) from Table 6	3,005	2,660	4,460	4,660	2,950
Approx. Min. Suction HGL (ft) (1)	1,105	1,070	1,070	1,070	1,070
HGL of Discharge (ft) (2)	2,106	1,924	1,924	1,924	1,924
Static Lift (ft)	1,000	854	854	854	854
Approx. Headloss (ft) (3)	60	91	88	104	101
Total Dynamic Head (ft)	1,060	945	942	958	955
Approx. Total Horsepower Req'd (4)	1,200	1,000	1,500	1,500	1,100

(1) Per 2007 District 17 Supply Study [1] and 2017 LVMWD Water System Design Report [2]
(2) Discharge to Simi Tank (Alternative 1) or Bell Canyon Tanks (Alternative 2)
(3) Hazen-Williams headloss (C=120) +20 feet for pump station. For Alt. 2B & 2C, headloss is averaged between zones.
(4) 65 percent wire-to-water efficiency, rounded.

Another challenge with Alternative 1 is the different discharge heads required for delivery to the Bell Canyon Tanks and Upper Woolsey Tank. At an HGL of 1,845 feet, Upper Woolsey Tank is considerably lower than either the Rocketdyne Tank (HGL 1,945 feet) or Simi Tank (HGL 2,106 feet). Because service to Woolsey would occur daily, while service to Bell Canyon would be only in case of an emergency, avoiding the added cost of the higher lift would be preferred.[2] For efficient operations, variable-speed pumping is assumed.

Pipeline Requirements

The recommended sizes of pipelines are shown in Table 8 and are based on maximum flow velocities of 5 feet per second and maximum headlosses of 5 feet per 1000 feet of pipeline. These

[2] Although water currently delivered to Woolsey Canyon is already lifted to the Simi Tank HGL.

criteria apply to MDD flows in transmission pipelines.[3] The lengths of pipelines required are based on Google Earth measurements.

Table 8. Pipeline Criteria and Recommended Sizes

	Alternative 1	Alternative 2A	Alternative 2B	Alternative 2C	Alternative 2D
Suction piping flows (gpm)	3,005	2,660	4,460	4,460	2,950
Suction piping size (inch)	18	16	20	20	16
Suction piping length (ft)	100	4,300	4,300	4,300	4,300
Discharge flows (gpm)	3,005	2,660	2,660	2,660	2,950
Discharge pipe size (inch) (1)	18	16 / 14	16 /14	16 / 14	16 / 14
Discharge pipe length (ft) (1)	12,700	9,500 + 1,900	9,500 + 1,900	12,900 + 1,900	9,500 + 1,900

(1) See discussion below regarding the discharge piping for Alternatives 2A, B, C, & D.

Discharge Piping for Alternative 2

The Bell Canyon water system was designed to receive water at the top of the system and distribute it to successively lower pressure zones. (The triangular symbols on Figure 2 show the approximate locations of existing pressure reducing valves (PRVs).) As such, water entering the bottom of the system must be piped to the upper zone for system-wide distribution and for storage in the existing tanks.

Unfortunately, after entering the highest zone, water will need to be piped another 1,900 feet due to the unusually small (10-inch) pipe between the tank access road and the PRV. A more appropriate pipe size would be 16 inches, matching the size of the pipe in the tank access road. If the 10-inch pipe remains in service, it can be combined with a 14-inch pipe, to produce equivalent capacity.

Proposed New Tank for Alternative 2D

The 2010 District 17 Master Plan recommended adding a new tank at a new site to improve system reliability and provide a larger volume of emergency storage. The recommended size of the tank was 1.74 million gallons to offset a storage deficit. With construction of an alternative supply from LVMWD, this storage deficit would not be eliminated, but the urgency of the need would be somewhat reduced.

As mentioned earlier, preliminary plans for Tentative Tract 73766 do not include a tank storage, primarily because a suitable site near the tract was not available. However, tank storage is certainly preferred versus the alternative of a variable-speed, hydropneumatic pumping station. The latter alternative is considerably less reliable. If the Bell Canyon and Tract 73766 water systems were connected, tank storage could be shared.

[3] For fire flows in local distribution piping, higher velocities (up to 15 fps) and higher headlosses are generally permitted, provided that minimum pressures of 20 psi are maintained at each service connection, and 5 psi are maintained within the pipeline at other locations.

Because District 17 has a storage deficit (not a surplus), any storage provided to Tract 73766 would have to be constructed. Per LVMWD standards, the minimum size of tank required for Tract 73766 is 0.62 MG. This is based on 5 hours of emergency storage, 20 hours of operational storage, and a fire flow storage requirement of 1,500 gpm for 2 hours during MDD. Although Bell Canyon and Tract 73766 could theoretically share fire flow storage, given the high risk and the history of wildfires in this area, it is appropriate that Tract 73766 provide its own fire flow storage.

Adding the storage need of Tract 73766 to the storage deficit of District 17, the minimum size of a jointly financed water storage tank is 1.74 + 0.62 = 2.36 million gallons (MG).

Planning-Level Facility Costs

Planning-level estimated costs for these alternatives are presented in Table 9. These figures are for comparison of the alternatives and for determining the general feasibility of the project. If any project alternative is deemed feasible, a more detailed analysis of costs, environmental issues, permits, and other factors will be needed.

Unit pipeline costs assume somewhat difficult trenching conditions due to shallow bedrock in both Woolsey Canyon and Bell Canyon. Compared to Woolsey Canyon Road, Bell Canyon Boulevard is expected to have heavier traffic and greater utility congestion, so slightly higher unit prices are applied. Welded steel pipe is assumed for discharge piping, where high pressures will exist.

The pump station costs are based on updates from the 2007 District 17 Supply Study, which investigated the pumping station costs in moderate detail [1]. For all alternatives, a high-lift pumping station is required, necessitating specialized valves, pumps, and other equipment. Variable frequency drives (VFDs) are assumed due to variations in head requirements. VFDs require a pump house building that is air conditioned.

Table 9. Planning-Level Comparison of Costs ($ Millions) [(1)]

	Alternative 1	Alternative 2A	Alternative 2B	Alternative 2C	Alternative 2D
Pump Station	2.69	3.41	4.11	4.18	2.78
Suction / Discharge Pipes	6.00	7.09	7.74	9.31	7.07
Tank, including Pipe & Road	n/a	n/a	n/a	n/a	5.95
Project Contingency	1.30	1.58	1.78	2.02	2.37
Construction Subtotal	**9.99**	**12.08**	**13.62**	**15.51**	**18.17**
Engineering, inspect, admin	1.50	1.81	2.04	2.33	2.73
Environmental / Permitting	0.25	0.30	0.30	0.30	0.35
Indirect Costs Subtotal	**1.75**	**2.11**	**2.34**	**2.63**	**3.08**
Project Total	**11.7**	**14.2**	**16.0**	**18.1**	**21.3**

[(1)] For more details, see cost estimates found in Appendix 2.

Cost Sharing Between Districts

Except for Alternative 2A, which only serves District 17, these costs would be shared between District 17 and LVMWD. The proportioning of costs is not within the scope of this study, but general principals are discussed below.

For most projects constructed for the benefits of two agencies, costs are divided based on the proportion of each facility that is needed to serve each utility. For instance, if a portion of a pipeline only serves District 17, the cost of that portion would be paid solely by District 17. But where a facility serves both agencies, the costs would be split. For instance, a new 2.36 MG tank is proposed is proposed in Alternative 2D. The tank volume intended for Tentative Tract 73766 is 0.62 MG. Therefore 26 percent (0.62 MG of 2.36 MG total) of the cost of the tank would be paid

by LVMWD.[4] This division of cost would apply to both the direct (construction) costs and the indirect (engineering, inspection, and administration) costs.

In the case of the Woolsey Canyon Alternative, LVMWD may be required to pay a higher proportion of costs, since service from District 17 could possibly be terminated with a one-year notice. Under this scenario, LVMWD might be obligated to build a pumping station and pipeline to connect the Woolsey system. District 17 might then be obligated to pay for only the added cost of increasing the size of the pumping station, increasing the size of pipeline, and extending the pipeline to serve District 17. (Note: the conditions upon which service to Woolsey Canyon could be terminated were not investigated and may be subject to some restrictions.)

Legal counsel guidance will be required in determining how costs of a joint project are to be divided in accordance with governing law.

Uncertainty Regarding Tentative Tract 73766

Unless funding or bonds are provided in advance by the developer of Tentative Tract 73766, LVMWD is not likely to participate in costs for Alternatives 2B, 2C or 2D (Alternative 2A only serves District 17). Currently, the status of this development is unknown.

In accordance with its Administrative Code, LVMWD would require reimbursement from the developer of Tentative Tract 73766 for all improvements that serve the development and do not benefit the LVMWD system or other LVMWD customers. This includes costs for pipelines, pumping stations, water tanks, appurtenances, and related costs such as easements, fee parcels, engineering, permitting, environmental studies, and inspection.

A Preliminary Water System Design Report was prepared for Tentative Tract 73766 in April 2017, which outlined the requirements for providing water service to the proposed development. The report was intended to inform the planning, environmental review, and permitting of the development. When the report was written, the developer expressed eagerness to start work on the design of these facilities, confident that the development was already entitled. Since 2017, however, no communications have occurred between the developer, HDR, or LVMWD.

According to the 2017 report, the owner/developer of the tentative tract is Universal Property Investments, Beverly Hills. Emails sent to the developer contacts (Mike Perry and Judy Hernandez) have bounced back as undeliverable, and voice mail messages left at Universal Property Investments (310.929.2505) have not been returned. Contact was made with the developer's engineer, Ramy Awad, B&E Engineers, who responded, "Sorry, I have no information on the project or the client." It appears that this development may be on hold.

[4] LVMWD would require the tract developer to fund this cost, as explained below.

Comparison of Alternatives

The alternatives outlined in this report would serve different consumers, as noted in Table 10.

Table 10. Summary of Available Water Supplies for Viable Alternatives

Community	Service Area	Existing System		Alternative 1		Alternative 2	
		Primary Supply	Alt Supply (1)	Primary Supply	Alt Supply (1)	Primary Supply	Alt Supply (1)
Bell Canyon	District 17	District 17	none	District 17	LVMWD	District 17	LVMWD
Woolsey Canyon	LVMWD	District 17	none	LVMWD	District 17	District 17	none
Tract 73766	LVMWD	n/a	n/a	LVMWD	none	LVMWD	District 17(3)
Box Canyon (2)	LVMWD	LVMWD / District 8	District 8	LVMWD	District 8	LVMWD / District 8	District 8

(1) Alternative supply is defined as emergency or supplemental supply.

(2) Currently, District 8 provides supply to select homes in the Box Canyon Community (in the LVMWD service area) that are too high in elevation to receive water from LVMWD. As part of Alternative 1, the pumping station would allow Las Virgenes to serve those homes. Under emergency situations, District 8 could supply these and other homes in Box Canyon, when LVMWD system disruptions occur.

(3) This assumes that the pumping station is designed appropriately or a shared water storage tank is constructed.

A general comparison of costs, advantages, and disadvantages is shown in Table 11.

Table 11. General Comparison of Alternatives

Alt	Cost ($M)	Capacity Split (District 17 / LVMWD)	Advantages	Disadvantages
1	11.7	89% / 11%	- Lowest cost - Benefits existing LVMWD Woolsey Canyon customers - Potential cost sharing - Pipeline construction is less impactful to traffic than other alternatives	- District 17 would still be vulnerable to outage downstream of Facility Road and Woolsey Canyon Road intersection - Requires interagency agreement for cost sharing
2A	14.2	100% / 0%	- Single agency involvement	- No cost sharing
2B	16.0	60% / 40%	- Cost sharing with developer (private financing)	- Cost sharing depends on development, with is uncertain
2C	18.1	60% / 40%	- Cost sharing with developer (private financing) - Less construction in Bell Canyon Boulevard	- Highest cost when tank is excluded - Cost sharing depends on development, with is uncertain
2D	21.3	90% / 10%	- Cost sharing with developer (private financing) - Helps finance tank needed by District 17 - Tank storage for proposed new LVMWD zone is preferred	- Cost sharing depends on development, with is uncertain

Based on these comparisons, Alternative 1 appears to be the feasible. It has the lowest overall cost, which would likely be shared, would benefit existing customers of both agencies. It is also believed to be less impactful to traffic, as Bell Canyon Boulevard serves more homes than Woolsey Canyon Road.

Summary of Findings and Recommendations

This study investigated alternatives for providing emergency or supplemental water supply from the LVMWD system to District 17. Two basic alternatives were studied, with several variations.

Alternative 1 appears to be the most cost-effective and provides benefits to both the District 17 (Bell Canyon) and LVWMD (Woolsey Canyon) systems. Cost sharing is a possibility.

Alternative 2 is more costly, particularly if the developer of Tentative Tract 73766 does not participate. Due to the lack of response by the developer to recent inquiries, it should be assumed that the developer's participation is unlikely in the foreseeable future. Alternative 2 provides no benefits to existing LVMWD customers.

Preliminary budgets were developed based on concepts for systems needed to meet projected water demands. These budgets are intended to compare the alternatives and determine general feasibility. Should the agencies determine that Alternative 1 appears feasible, the following is suggested:

(4) Develop a preliminary memorandum of understanding between District 17 and Las Virgenes MWD that in general terms addresses how the project will be accomplished, including which agency will lead, how costs will be shared, and schedule milestones.

(5) Prepare a preliminary engineering report, investigating in greater detail the engineering criteria, facility features, estimated costs, and the permit and regulatory requirements, including a CEQA initial study.

(6) Based on the results of the preliminary engineering report, confirm project feasibility and budget. Develop a formal interagency agreement addressing financing, project management, and operations.

* * *

HDR appreciates the opportunity to work on this study for LVMWD and District 17. Please direct questions to Dan.Ellison@HDRinc.com; 213.200.5152.

References

[1] *Ventura County Waterworks District 17, Alternative Water Supply Study (Woolsey Canyon)*. Boyle Engineering. 2007.

[2] *Las Virgenes Municipal Water District, Preliminary Water System Design Report, Tentative Tract 73766 (Bell Canyon).* HDR. 2017.

[3] *Ventura County Waterworks District 17, Water System Master Plan*. Penfield & Smith. 2010.

[4] *Las Virgenes Municipal Water District, Potable Water Master Plan*. Kennedy/Jenks Consultants. 2014.

[5] *Las Virgenes Municipal Water District, Potable Water Master Plan*. Boyle Engineering. 2007.

APPENDIX A – DEMAND CALCULATIONS

DEMAND SUMMARY TABLE

District 17	Demand	Units
Peak Year 2007 [1]	997	gpm
YEAR 2018 (Fire Year)[2]	829	gpm
YEAR 2014 (Pre-Fire)	780	gpm
2009 Master Plan ADD	923	gpm
2009 Master Plan MDD[3]	2325	gpm
2009 MDD at Buildout	2664	gpm
Boeing		
2009 Master Plan ADD	7	gpm
Woolsey Canyon		
2009 Dist 17 Master Plan ADD	73	gpm
2007 District 17 Report ADD	152	gpm
2007 LVMWD EXIST MDD	190	gpm
2007 LVMWD FUTURE MDD	320	gpm
2014 LVMWD MP EXIST MDD	228	gpm
2014 LVMWD MP FUTURE MDD[4]	747	gpm
Tentative Tract 73766		
MDD	290	gpm
5 hour emergency storage	87000	gal
20 hours of operational storage	348000	gal
Fire flow, 1500 gpm, 2 hours	180000	gal
Total Storage Requirement	615000	gal

[1] Based on District 17 Production Data

[2] Based on November 8, 2018 Woolsey Fire

[3] MDD / ADD = Peaking Factor of 2.52

[4] On p. 5-23, 2014 LVMWD MP states "increases are no longer expected to occur due to the surrounding area having been zoned by Los Angeles County as 'significant ecological area", reducing projectoins of future demand."

HAZEN-WILLIAMS HEAD LOSS CALCULATION

Alternative 1 Discharge		
C =	120	
L =	12700	feet
Q =	3005	gpm
D =	18	inches
Pipe headloss	40.3	feet
Static lift	1000.0	feet
PS headloss	20.0	feet
Total	1060.3	feet

Hazen-Williams
SI Units Coeff = 10.65

Alternative 2A Suction		
C =	120	
L =	4300	feet
Q =	2660	gpm
D =	16	inches
Pipe headloss	19.3	feet
Static lift	854.0	feet
PS headloss	20.0	feet
Total	893.3	feet

Alternative 2A discharge		
C =	120	
L =	11400	feet
Q =	2660	gpm
D =	16	inches
Pipe headloss	51.3	feet
Total	944.6	feet

Alternative 2B Suction		
C =	120	
L =	4300	feet
Q =	4460	gpm
D =	20	inches
Pipe headloss	17.0	feet
Static lift	854.0	feet
PS headloss	20.0	feet
Total	891.0	feet

Alternative 2B Discharge to Bell		
C =	120	
L =	11400	feet
Q =	2660	gpm
D =	16	inches
Pipe headloss	51.3	feet
Total	942.2	feet

Alternative 2B Discharge to TT73766		
C =	120	
L =	2500	feet
Q =	1800	gpm
D =	12	inches
Pipe headloss	39.1	feet
Static lift	690.0	feet
PS headloss	20.0	feet
Total	749.1	feet

Alternative 2C Suction		
C =	120	
L =	4300	feet
Q =	4460	gpm
D =	20	inches
Pipe headloss	17.0	feet
Static lift	854.0	feet
PS headloss	20.0	feet
Total	891.0	feet

Alternative 2B Discharge to Bell		
C =	120	
L =	14800	feet
Q =	2660	gpm
D =	16	inches
Pipe headloss	66.5	feet
Total	957.5	feet

Alternative 2B Discharge to TT73766		
C =	120	
L =	2500	feet
Q =	1800	gpm
D =	12	inches
Pipe headloss	39.1	feet
Static lift	690.0	feet
PS headloss	20.0	feet
Total	749.1	feet

Alternative 2D Suction		
C =	120	
L =	4300	feet
Q =	2660	gpm
D =	16	inches
Pipe headloss	19.3	feet
Static lift	854.0	feet
PS headloss	20.0	feet
Total	893.3	feet

Alternative 2D Discharge		
C =	120	
L =	11400	feet
Q =	2950	gpm
D =	16	inches
Pipe headloss	62.1	feet
Total	955.4	feet

HORSE POWER REQUIREMENT CALCULATION

Alternative 1			
Head	1060.3	ft max	
Flow	3005.0	gpm	
=	6.70	cfs	
=	417.81	lbs of wtr/sec	
Power	443,009	ft lbs/sec	
Efficiency	65%		
Motor	1,200.0	HP, rounded	
	890.00	kW, rounded	

Alternative 2A			
Head	944.6	ft max	
Flow	2660.0	gpm	
=	5.93	cfs	
=	369.84	lbs of wtr/sec	
Power	349,346	ft lbs/sec	
Efficiency	65%		
Motor	1,000.0	HP, rounded	
	750.00	kW, rounded	

Alternative 2B - BELL			
Head	942.2	ft max	
Flow	2660.0	gpm	
=	5.93	cfs	
=	369.84	lbs of wtr/sec	
Power	348,471	ft lbs/sec	
Efficiency	65%		
Motor	1,000.0	HP, rounded	
	750.00	kW, rounded	

Alternative 2C - BELL			
Head	957.5	ft max	
Flow	2660.0	gpm	
=	5.93	cfs	
=	369.84	lbs of wtr/sec	
Power	354,124	ft lbs/sec	
Efficiency	65%		
Motor	1,000.0	HP, rounded	
	750.00	kW, rounded	

Alternative 2D			
Head	955.4	ft max	
Flow	2950.0	gpm	
=	6.57	cfs	
=	410.16	lbs of wtr/sec	
Power	391,868	ft lbs/sec	
Efficiency	65%		
Motor	1,100.0	HP, rounded	
	820.00	kW, rounded	

Alternative 2B - TT 73766			
Head	749.1	ft max	
Flow	1800.0	gpm	
=	4.01	cfs	
=	250.27	lbs of wtr/sec	
Power	187,480	ft lbs/sec	
Efficiency	65%		
Motor	500.0	HP, rounded	
	370.00	kW, rounded	

Alternative 2C - TT 73766			
Head	749.1	ft max	
Flow	1800.0	gpm	
=	4.01	cfs	
=	250.27	lbs of wtr/sec	
Power	187,480	ft lbs/sec	
Efficiency	65%		
Motor	500.0	HP, rounded	
	370.00	kW, rounded	

Total for both	1,500.00	HP, rounded

Total for both	1,500.00	HP, rounded

APPENDIX B – COST ESTIMATES

Las Virgines Municipal Water District
Bell & Woolsey Canyons Alternative Water Supply Study
Opinion of Probable Construction Cost - Summary, April 26, 2021

Description	Alternative 1	Alternative 2A	Alternative 2B	Alternative 2C	Alternative 2D
Pump Station	$ 2,690,000	$ 3,410,000	$ 4,110,000	$ 4,180,000	$ 2,780,000
Pipeline	$ 6,000,000	$ 7,090,000	$ 7,740,000	$ 9,310,000	$ 7,070,000
Tank	$ -	$ -	$ -	$ -	$ 5,950,000
Project Contingency (15%)	$ 1,300,000	$ 1,580,000	$ 1,780,000	$ 2,020,000	$ 2,370,000
Construction Subtotal (rounded)	**$ 9,990,000**	**$ 12,080,000**	**$ 13,630,000**	**$ 15,510,000**	**$ 18,170,000**
Additional Items					
Engineering, Admin., Inspection (15% of Construction Total)	$ 1,500,000	$ 1,810,000	$ 2,040,000	$ 2,330,000	$ 2,730,000
Environmental & Permiting	$ 250,000	$ 300,000	$ 300,000	$ 300,000	$ 350,000
Additional Items Subtotal (rounded)	**$ 1,750,000**	**$ 2,110,000**	**$ 2,340,000**	**$ 2,630,000**	**$ 3,080,000**
Total Project (rounded)	**$ 11,700,000**	**$ 14,200,000**	**$ 16,000,000**	**$ 18,100,000**	**$ 21,300,000**

Alternative 1 - Pump Station

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 68,000	$ 68,000
2	Site work	LS	1	$ 27,000	$ 27,000
3	Land Acquisition	SF	5,000	$ 55	$ 273,704
4	Off-site utiltities	LS	1	$ 27,000	$ 27,000
5	Pump house building	LS	1	$ 300,000	$ 300,000
6	HVAC	LS	1	$ 7,000	$ 7,000
7	Pumps	EA	4	$ 205,000	$ 820,000
8	On-site Suction and Discharge Piping	LS	1	$ 68,000	$ 68,000
9	Flow meter	EA	1	$ 21,000	$ 21,000
10	Control valves	EA	4	$ 21,000	$ 84,000
11	Butterfly valves and misc. accessories	LS	1	$ 68,000	$ 68,000
12	Instrumentation, PLC, controls	LS	1	$ 100,000	$ 100,000
13	Variable Frequency Drives	EA	4	$ 68,000	$ 272,000
14	Service switchboard	EA	1	$ 123,000	$ 123,000
15	Misc. electrical	LS	1	$ 68,000	$ 68,000
16	Testing and Start up	LS	1	$ 6,800	$ 6,800
17	Record Drawings	LS	1	$ 2,700	$ 2,700
18	Allowance for items not listed	-	15%	-	$ 350,431
				TOTAL (rounded)	**$ 2,690,000**

Alternative 1 - Pipeline

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 103,000	$ 103,000
2	Tie-in connections	EA	3	$ 14,000	$ 42,000
3	18-inch welded steel pipeline & appurtenances	LF	11,400	$ 410	$ 4,674,000
4	18-inch PVC pipeline & appurtenances	LF	1,500	$ 340	$ 510,000
5	Rock Excavation	LF	3,000	$ 40	$ 120,000
6	Record Drawings	LS	1	$ 3,000	$ 3,000
7	Allowance for items not listed	-	10%	-	$ 545,200
				TOTAL (rounded)	**$ 6,000,000**

Alternative 2A - Pump Station

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 68,000	$ 68,000
2	Site work	LS	1	$ 27,000	$ 27,000
3	Land Acquisition	SF	5,000	$ 82	$ 410,555
4	Off-site utiltities	LS	1	$ 27,000	$ 27,000
5	Pump house building	LS	1	$ 380,000	$ 380,000
6	HVAC	LS	1	$ 7,000	$ 7,000
7	Pumps	EA	4	$ 164,000	$ 656,000
8	Fire pump	LS	1	$ 200,000	$ 200,000
9	Emergency generator	LS	1	$ 250,000	$ 250,000
10	Hydropneumatic tank	LS	1	$ 150,000	$ 150,000
11	On-site Suction and Discharge Piping	LS	1	$ 68,000	$ 68,000
12	Flow meter	EA	1	$ 21,000	$ 21,000
13	Control valves	EA	4	$ 21,000	$ 84,000
14	Butterfly valves and misc. accessories	LS	1	$ 68,000	$ 68,000
15	Instrumentation, PLC, controls	LS	1	$ 100,000	$ 100,000
16	Variable Frequency Drives	EA	4	$ 68,000	$ 272,000
17	Service switchboard	EA	1	$ 99,000	$ 99,000
18	Misc. electrical	LS	1	$ 68,000	$ 68,000
19	Testing and Start up	LS	1	$ 6,800	$ 6,800
20	Record Drawings	LS	1	$ 2,700	$ 2,700
21	Allowance for items not listed	-	15%	-	$ 444,758
				TOTAL (rounded)	**$ 3,410,000**

Alternative 2A - Pipeline

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 103,000	$ 103,000
2	Tie-in connections	EA	3	$ 14,000	$ 42,000
3	16-inch PVC pipeline & appurtenances	LF	4,300	$ 340	$ 1,462,000
4	16-inch welded steel pipeline & appurtenances	LF	11,400	$ 410	$ 4,674,000
5	Rock Excavation	LF	4,000	$ 40	$ 160,000
6	Record Drawings	LS	1	$ 3,000	$ 3,000
7	Allowance for items not listed	-	10%	-	$ 644,400
				TOTAL (rounded)	**$ 7,090,000**

Alternative 2B - Pump Station

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 68,000	$ 68,000
2	Site work	LS	1	$ 27,000	$ 27,000
3	Land Acquisition	SF	5,000	$ 55	$ 273,704
4	Off-site utiltities	LS	1	$ 27,000	$ 27,000
5	Pump house building	LS	1	$ 380,000	$ 380,000
6	HVAC	LS	1	$ 14,000	$ 14,000
7	Pumps	EA	4	$ 342,000	$ 1,368,000
8	Fire pump	LS	1	$ 200,000	$ 200,000
9	Emergency generator	LS	1	$ 250,000	$ 250,000
10	Hydropneumatic tank	LS	1	$ 150,000	$ 150,000
11	On-site Suction and Discharge Piping	LS	1	$ 68,000	$ 68,000
12	Flow meter	EA	1	$ 21,000	$ 21,000
13	Control valves	EA	4	$ 21,000	$ 84,000
14	Butterfly valves and misc. accessories	LS	1	$ 68,000	$ 68,000
15	Instrumentation, PLC, controls	LS	1	$ 100,000	$ 100,000
16	Variable Frequency Drives	EA	4	$ 68,000	$ 272,000
17	Service switchboard	EA	1	$ 123,000	$ 123,000
18	Misc. electrical	LS	1	$ 68,000	$ 68,000
19	Testing and Start up	LS	1	$ 6,800	$ 6,800
20	Record Drawings	LS	1	$ 2,700	$ 2,700
21	Allowance for items not listed	-	15%	-	$ 535,681
				TOTAL (rounded)	**$ 4,110,000**

Alternative 2B - Pipeline

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 103,000	$ 103,000
2	Tie-in connections	EA	2	$ 14,000	$ 28,000
3	20-inch PVC pipeline & appurtenances	LF	4,300	$ 480	$ 2,064,000
4	16-inch welded steel pipeline & appurtenances	LF	11,400	$ 410	$ 4,674,000
5	Rock Excavation	LF	4,000	$ 40	$ 160,000
6	Record Drawings	LS	1	$ 3,000	$ 3,000
7	Allowance for items not listed	-	10%	-	$ 703,200
				TOTAL (rounded)	**$ 7,740,000**

Alternative 2C - Pump Station

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 68,000	$ 68,000
2	Site work	LS	1	$ 27,000	$ 27,000
3	Land Acquisition	SF	5,000	$ 55	$ 273,704
4	Off-site utiltities	LS	1	$ 27,000	$ 27,000
5	Pump house building	LS	1	$ 380,000	$ 380,000
6	HVAC	LS	1	$ 14,000	$ 14,000
7	Pumps	EA	4	$ 342,000	$ 1,368,000
8	On-site Suction and Discharge Piping	LS	1	$ 68,000	$ 68,000
8	Fire pump	LS	1	$ 200,000	$ 200,000
9	Emergency generator	LS	1	$ 250,000	$ 250,000
10	Hydropneumatic tank	LS	1	$ 150,000	$ 150,000
11	Flow meter	EA	1	$ 21,000	$ 21,000
12	Control valves	EA	4	$ 21,000	$ 84,000
13	Butterfly valves and misc. accessories	LS	1	$ 68,000	$ 68,000
14	Instrumentation, PLC, controls	LS	1	$ 100,000	$ 100,000
15	Variable Frequency Drives	EA	4	$ 68,000	$ 272,000
16	Service switchboard	EA	1	$ 185,000	$ 185,000
17	Misc. electrical	LS	1	$ 68,000	$ 68,000
18	Testing and Start up	LS	1	$ 6,800	$ 6,800
19	Record Drawings	LS	1	$ 2,700	$ 2,700
20	Allowance for items not listed	-	15%	-	$ 544,981
				TOTAL (rounded)	**$ 4,180,000**

Alternative 2C - Pipeline

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 103,000	$ 103,000
2	Tie-in connections	EA	2	$ 14,000	$ 28,000
3	20-inch PVC pipeline & appurtenances	LF	4,300	$ 480	$ 2,064,000
4	16-inch welded steel pipeline & appurtenances	LF	14,800	$ 410	$ 6,068,000
5	Rock Excavation	LF	5,000	$ 40	$ 200,000
6	Record Drawings	LS	1	$ 3,000	$ 3,000
7	Allowance for items not listed	-	10%	-	$ 846,600
				TOTAL (rounded)	**$ 9,310,000**

Alternative 2D - Pump Station

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 68,000	$ 68,000
2	Site work	LS	1	$ 27,000	$ 27,000
3	Land Acquisition	SF	5,000	$ 55	$ 273,704
4	Off-site utiltities	LS	1	$ 27,000	$ 27,000
5	Pump house building	LS	1	$ 380,000	$ 380,000
6	HVAC	LS	1	$ 7,000	$ 7,000
7	Pumps	EA	4	$ 205,000	$ 820,000
8	On-site Suction and Discharge Piping	LS	1	$ 68,000	$ 68,000
9	Flow meter	EA	1	$ 21,000	$ 21,000
10	Control valves	EA	4	$ 21,000	$ 84,000
11	Butterfly valves and misc. accessories	LS	1	$ 68,000	$ 68,000
12	Instrumentation, PLC, controls	LS	1	$ 100,000	$ 100,000
13	Variable Frequency Drives	EA	4	$ 68,000	$ 272,000
14	Service switchboard	EA	1	$ 123,000	$ 123,000
15	Misc. electrical	LS	1	$ 68,000	$ 68,000
16	Testing and Start up	LS	1	$ 6,800	$ 6,800
17	Record Drawings	LS	1	$ 2,700	$ 2,700
18	Allowance for items not listed	-	15%	-	$ 362,431
				TOTAL (rounded)	**$ 2,780,000**

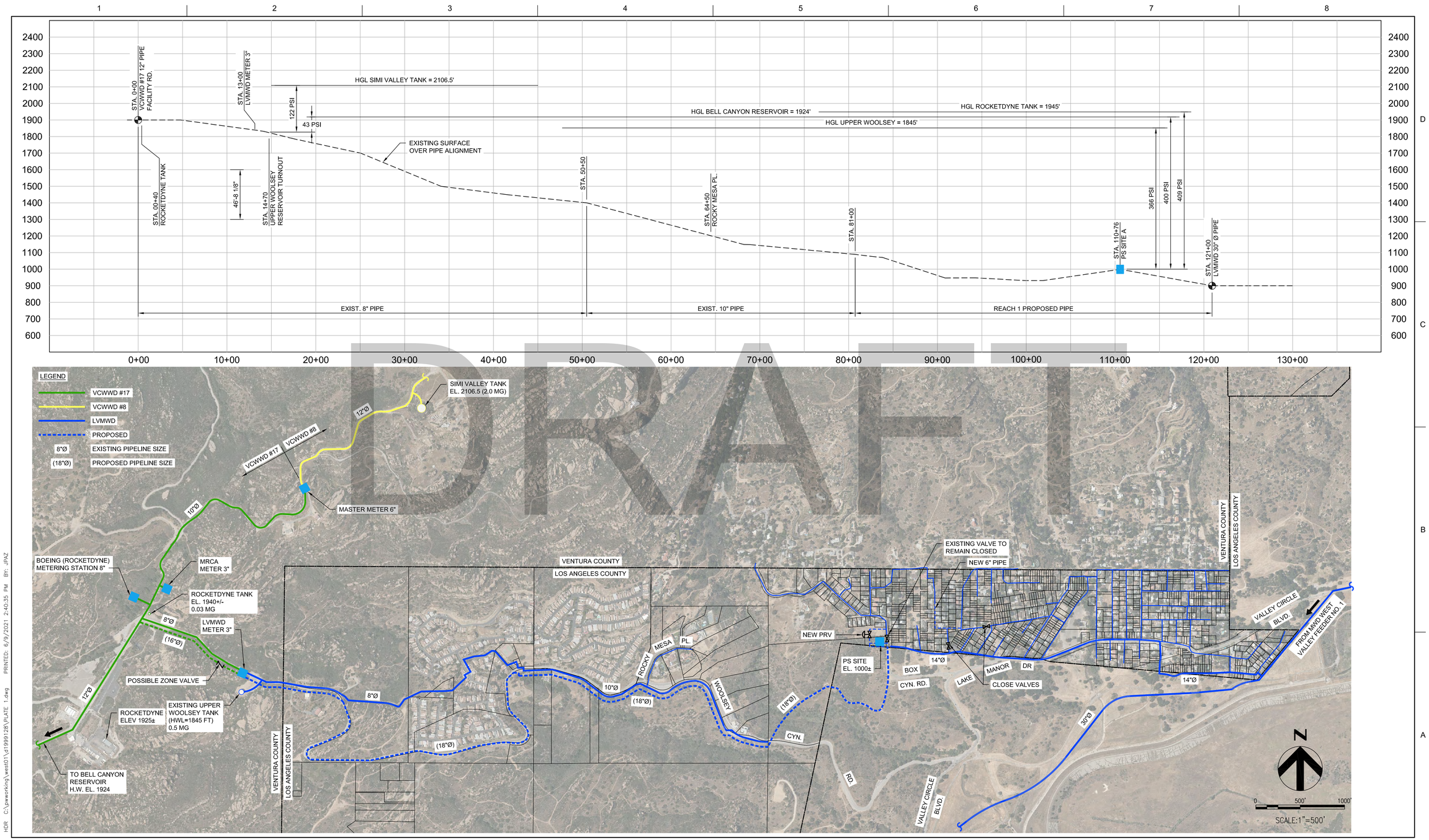
Alternative 2D - Pipeline (suction and discharge)

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 103,000	$ 103,000
2	Tie-in connections	EA	2	$ 14,000	$ 28,000
3	16-inch PVC pipeline & appurtenances	LF	4,300	$ 340	$ 1,462,000
4	16-inch welded steel pipeline & appurtenances	LF	11,400	$ 410	$ 4,674,000
5	Rock Excavation	LF	4,000	$ 40	$ 160,000
6	Record Drawings	LS	1	$ 3,000	$ 3,000
7	Allowance for items not listed	-	10%	-	$ 643,000
				TOTAL (rounded)	**$ 7,070,000**

Alternative 2D - TANK (including road and pipe)

NO.	WORK ITEM	UNIT OF MEASURE	EST. QUANTITY	2021 UNIT PRICE	TOTAL COST
1	Mobilization, bonds, insurance	LS	1	$ 100,000	$ 100,000
2	Land acquistion	LS	1	$ 400,000	$ 400,000
3	Site work	LS	1	$ 50,000	$ 50,000
4	Pipeline, 12-inch	FT	5,700	$ 300	$ 1,710,000
5	Road	LS	1	$ 150,000	$ 150,000
6	Storage tank, 2 MG	GAL	2,360,000	$ 1.25	$ 2,950,000
7	Rock Excavation	LS	1	$ 50,000	$ 50,000
8	Record Drawings	LS	1	$ 3,000	$ 3,000
9	Allowance for items not listed	-	10%	-	$ 541,300
				TOTAL (rounded)	**$ 5,950,000**

APPENDIX C – PLATES 1 AND 2



HDR C:\pwworking\west01\d1999128\PLATE 1.dwg PRINTED: 6/9/2021 2:40:35 PM BY: JPAZ

C:\pwworking\west01\d1999128\PLATE 1.dwg, Plot: 6/9/2021 2:40:35 PM, JPAZ

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	D. ELLISON
DESIGNED BY	J.PAZ
CHECKED BY	D. ELLISON
DRAWN BY	A. HAIDARI
PROJECT NUMBER	10278314

NOT FOR CONSTRUCTION OR RECORDING

LAS VIRGENES MUNICIPAL WATER DISTRICT
ALTERNATIVES WATER SUPPLY STUDY

WOOLSEY CANYON ALTERNATIVE

0 1" 2"

FILENAME PLATE 1.dwg
SCALE 1"=500'

SHEET
PLATE 1

TENTATIVE TRACT NO. 73766

FROM 30" CONDUIT ON VALLEY CIRCLE BLVD

OVERLAND DRIVE

PIPE SIZE WILL INCREASE IF DISTRICT 17 PARTICIPATES

PROPOSED PS

BELL CANYON ROAD

8"

8"

8"

8"

4"

8"

8"

12"

8"

8"

12"

12"

LEGEND:

HYDRANT

1135' ZONE 12" NEW WATER LINE

VALVE

VALVE HYDRANT

1740' ZONE 12" NEW WATER LINE

N

PRELIMINARY

LAS VIRGENES MUNICIPAL WATER DISTRICT – TENTATIVE TRACT 73766

PROPOSED POTABLE WATER SYSTEM

Dan Ellison
PROJECT MANAGER

–
PROJECT NUMBER

1"=250'
SCALE

FEB 2017
DATE

PLATE 2

PUBLIC
VENTURA COUNTY
WORKS

District 17 O&M Updates

FY 2021 – Fourth Quarter (April 1, 2021 – June 30, 2021)

Operations & Maintenance – Distribution Repairs

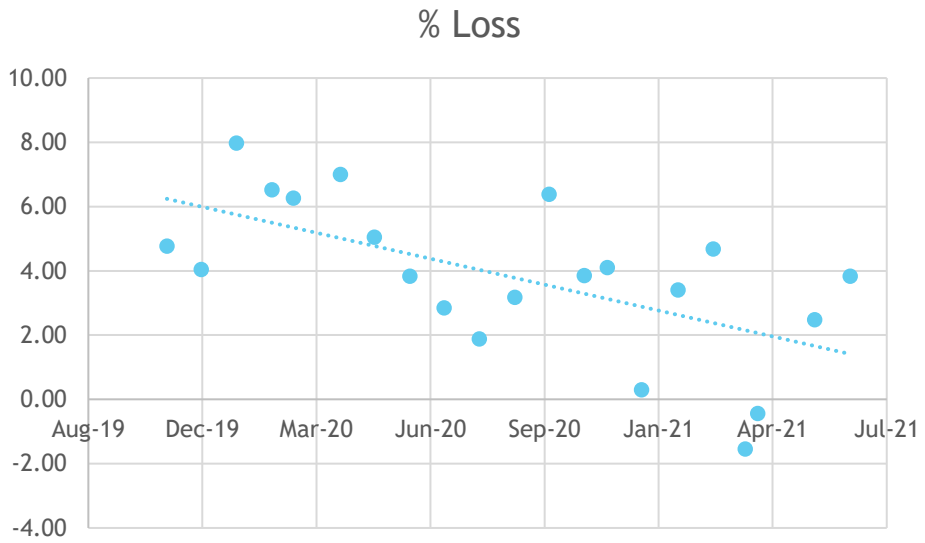
- Number of Main Line Repairs: 0
- Meter Upsizing: 0
- Hydrant and Hydrant Lateral Leaks: 0
- Fire Flow Tests: 0
- Valve Maintenance: 0
- Air/Vac Maintenance: 100% completed

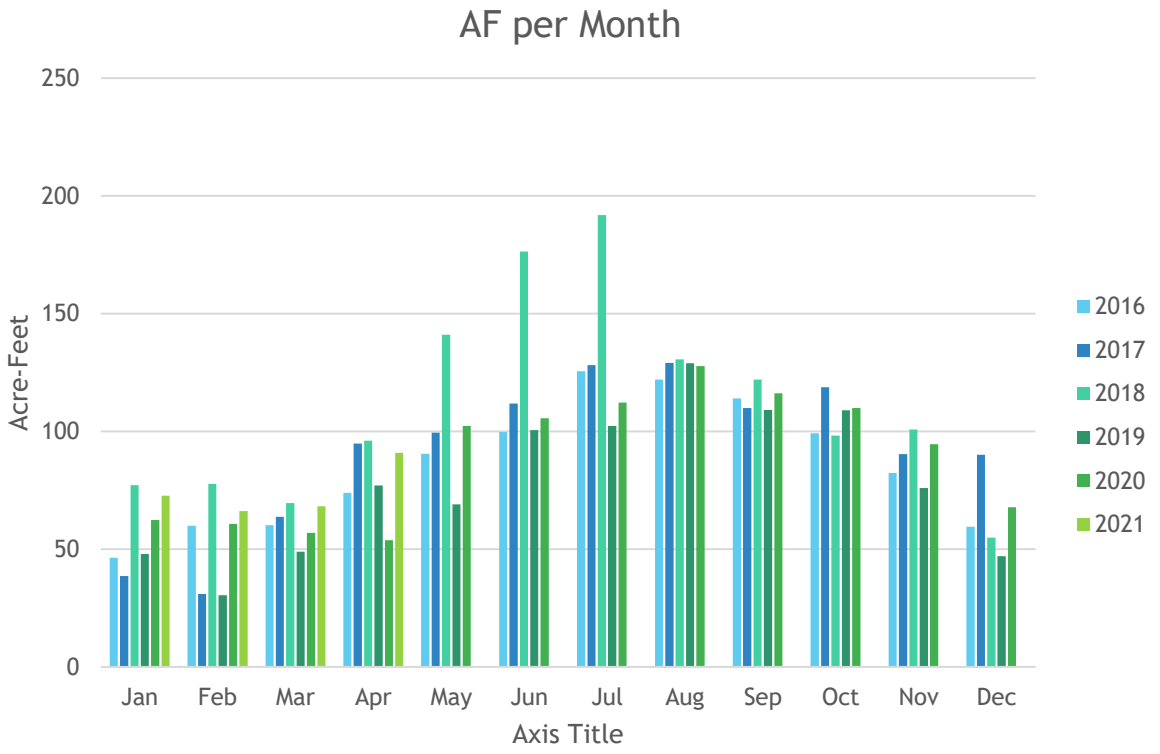
Operations & Maintenance – Service Repairs

- Pilot Program: Installing old meters with AMI capability at pressure reducing stations to better track operation and water loss.
- Service Line Repairs: 0
- Key Issues: None

Operations & Maintenance – Source Water

- City of Simi Valley (CMWD)
  - ~ 312 AF Delivered in FY2021Q4 (D17 master meter)
  - 2.1 % Average Water Loss for Quarter





Customer Service and Meter Reading

- Replaced 33 meters
  - Labor cost of $7,127
- Customer Account Activity (turn on/offs)
  - Labor cost of $2,779
- Customer Service Orders (check for leaks, verify reads, pressure, etc.)
  - Labor cost of $2,107
- Line Location
  - Cost of $1,571

Operations & Maintenance – Looking Forward

- LVMWD to D17 Alternative Water Supply DRAFT Report Findings:
  - Via Woolsey Canyon Road is most feasible
  - $11.7M Estimated Cost (April 2021)
  - D17 and LVMWD Staff to Discuss
- Survey Saddle Bow Crossing monthly with the Leak Correlator monthly
- City of Simi removed one of their tanks out of service for recoating
  - Simi revised their SCADA system
  - Source water decreased to 1,100 gpm from 1,700 gpm
  - Project delayed due to structural deficiencies identified in the Simi Valley Tank
  - Current schedule has work slated for completion in early July

Engineering - Capital Improvement Projects

- New Water Reservoir #3 and Pipeline Design of Stagecoach to Saddlebow Crossing
  - ~$10M
  - District 17 Staff Presented to HOA 11/12/21
    - District received concurrence from HOA Regarding proposed location
  - Key issue:
    - Funding, Land Agreements, Geotech
- 30% Design and Geotech progressing
  - HOA design review and beginning CEQA process by Jan 2022

PUBLIC VENTURA COUNTY WORKS

Questions?

5. COMMITTEE MEMBER'S COMMENTS/FUTURE AGENDA ITEMS

6. ADJOURNMENT

*Next regular scheduled WWD17 CAC meeting: <u>September 14, 2021</u>