



# AGENDA

1960 Elgin Street  
Oroville, CA 95966  
530-533-2000  
[www.loapud.com](http://www.loapud.com)

Board of Directors  
Regular Meeting  
September 14, 2021 – 2:00 PM

Materials related to an item on the open meeting agenda that are provided to the Board of Directors, including those provided to the Board after distribution of the agenda packet, are available on the District website.

During this difficult time, we invite you to join today's scheduled meeting via Zoom by using your phone or computer to attend this meeting. Please call our District office at **(530)533-2000** for assistance in participating in the teleconference.

Dial in: 1-669-900-9128  
Meeting ID: 828 8716 7390  
Passcode: 062231

To ensure that our meetings are as orderly as possible, and to enable public participation at the proper times during the meeting, we are asking that everyone take a moment to ensure your line stays muted until public comment is invited. When it comes time for public comment, we will leave enough time for participants to unmute and speak to the entire group and our Board. Because attendees cannot see each other's mute status, we will simply need to be patient as we wait in between comments, and do our best not to speak over each other. Please state your name for the record before sharing comments. We are committed to keeping the public engaged throughout this crisis and appreciate your help in making that happen.

1. **SALUTE TO THE FLAG OF THE UNITED STATES OF AMERICA**

2. **MOMENT OF SILENCE**

3. **ROLL CALL AND ACKNOWLEDGEMENT OF VISITORS**

Individuals will be provided the opportunity to address the Board regarding matters NOT scheduled on the agenda. No action will be taken by the Board on these matters; however, the Board may ask questions for clarification and refer to staff or other resources for information and request staff reports at a subsequent meeting. Comments on items scheduled on the agenda may be made as they are considered by the Board.

4. **CONSENT AGENDA**

All items listed under the Consent Agenda are considered routine and will be enacted by one motion unless an item is removed. Consent Agenda items will be read by title only. There will be no separate discussion of these items unless members of the Board or person in the audience request a specific item to be removed from the Consent Agenda to the Regular Agenda for separate discussion, prior to the time the Board votes on the motion to adopt the Consent Agenda. If any item(s) is removed from the Consent Agenda, the item(s) will be considered immediately following action on the Consent Agenda.

**4.1 BOARD MEETING MINUTES: REGULAR MEETING AUGUST 10, 2021**  
**SPECIAL MEETING AUGUST 5, 2021**  
**SPECIAL MEETING AUGUST 27, 2021**

**4.2 FINANCIAL REPORT MONTH ENDING: AUGUST 31, 2021**

**4.3 PAYMENT OF CLAIMS MONTH ENDING: AUGUST 31, 2021**

**5. ITEMS REMOVED FROM THE CONSENT AGENDA (IF ANY)**

**6. PRESENTATION BY DANIA JIMMERSON OF THE STATE WATER BOARD REGARDING PALERMO WASTEWATER**

Dania Jimmerson with the Central Valley Regional Water Quality Control Board will give a presentation regarding a potential Wastewater Consolidation Project for the community of Palermo.

**7. APPROVAL OF “RESOLUTION NO. 05-2021 KYLE ROBERSON APN 079-090-030 ACCEPTANCE OF SEWERAGE FACILITIES”**

The Board will review and consider accepting “Resolution No. 05-2021 Kyle Roberson APN 079-090-030 Acceptance of Sewerage Facilities”.

*Discussion with Possible Action*

**8. REVIEW AND AUTHORIZE EXECUTION OF THE MEMORANDUM OF UNDERSTANDING (MOU) FOR THE LEAP AND REAP GRANTS**

The Board will review and consider executing the Memorandum of Understanding (MOU) for the LEAP and REAP grants.

*Discussion with Possible Action*

**9. APPROVAL OF THE 2021 SEWER SYSTEM MASTER PLAN**

The Board will consider approving the 2021 Sewer System Master Plan as prepared by Sauers Engineering.

*Discussion with Possible Action*

**10. APPROVAL OF THE 2021 SEWER SYSTEM MANAGEMENT PLAN**

The Board will consider approving the 2021 Sewer System Management Plan as prepared by Sauers Engineering.

*Discussion with Possible Action*

**11. REQUEST A BUDGET AMENDMENT TO THE CAPITAL EXPENDITURES LINE FOR THE INCREASE IN COST OF A NEW FORD F250 SERVICE TRUCK WITH UTILITY BOX**

The Board will consider a budget amendment to increase the Capital Expenditures line for the purchase price of a new Ford F250 Service Truck with Utility Box.

*Discussion with Possible Action*

12. **REQUEST A BUDGET AMENDMENT TO PERFORM A FULL PUMP OVERHAUL AT THE HANGING TREE LIFT STATION**

The Board will consider a budget amendment to allow for anticipated increases for a complete overhaul to Hanging Tree List Station.

*Discussion with Possible Action*

13. **CLOSED SESSION – GOVERNMENT CODE §54957.6**

CONFERENCE WITH DISTRICT LABOR NEGOTIATOR REGARDING THE UNREPRESENTED POSITION OF GENERAL MANAGER (Pursuant to Government Code Section 54957.6)

**REPORTS AND CONSULTATIONS**

14. **SC-OR COMMISSIONER'S REPORT**

15. **BCSDA REPRESENTATIVES AND LAFCo REPORT**

16. **BOARD MEMBERS' MANAGER, AND STAFF COMMENTS**

- FIELD OPERATIONS REPORT
- PERSONNEL COMMITTEE REPORT

17. **ADJOURNMENT**



## **Manager's Report**

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 1 – Salute To The Flag Of The United States



## **Manager's Report**

To: Board of Directors  
From: Scott McCutcheon, General Manager  
Date: September 14, 2021  
RE: Item No. 2 – Moment Of Silence



## **Manager's Report**

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 3 – Roll Call And Acknowledgment Of Visitors



## Manager's Report

To: Board of Directors  
From: Scott McCutcheon, General Manager  
Date: September 14, 2021  
  
RE: Item No. 4 – Consent Agenda

Item No. 4.1 **Board Meeting Minutes** - Minutes from the August 2021 regular board meeting, and August 5, and 27 special meetings are included for the Board's review, comment, and approval.

Attachment Included

Item No. 4.2 **Financial Reports** - Combined Check Register, Operating Cash, and Income Statement through August 2021 are complete and ready for review, comment, and approval.

Attachment Included

Item No. 4.3 **Payment of Warrants** - The pending August 2021 Claims and Warrants are attached for review and Board approval for payment.

Attachment Included

**UNADOPTED  
LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
BOARD OF DIRECTORS REGULAR MEETING  
AUGUST 10, 2021**

**CALL TO ORDER**

President Sharman called the meeting to order at 2:01 P.M. Directors present were Fairbanks, Marciniak, Mastelotto and Salvucci. General Manager (GM) McCutcheon, and Clerk of the Board Hamblin represented the District. District Engineer Knibb was present via Zoom. Guest included Mr. Alan Gardener.

**SALUTE TO THE FLAG**

Director Fairbanks led the meeting with the salute to the flag.

**MOMENT OF SILENCE**

President Sharman asked the Board to observe a moment of silence.

**CONSENT AGENDA**

The Board reviewed the minutes of the Regular Board Meeting of July 13, 2021, and the minutes of the Special Board Meeting of July 22, 2021, the Financial Reports and the Claims List for month ending July 31, 2021. After discussion, it was moved by Director Fairbanks and seconded by Director Mastelotto that the items on the consent agenda be approved as presented. The motion passed with the following roll call vote:

Ayes: Directors Fairbanks, Marciniak, Mastelotto, Salvucci and Sharman.

**REQUEST DESIGNATION OF THE HIRING COMMITTEE AS DISTRICT  
LABOR NEGOTIATOR REGARDING THE UNREPRESENTED POSITION OF GENERAL  
MANAGER.**

GM McCutcheon updated the Board on the need to designate a District Labor Negotiator for the unrepresented position of General Manager. After discussion, it was moved by Director Sharman and seconded by Director Fairbanks to designate the Hiring Committee as the District Labor Negotiator regarding the unrepresented position of General Manager. The motion passed with the following roll call vote: Ayes: Directors Fairbanks, Marciniak, Mastelotto, Salvucci and Sharman.



**CLOSED SESSION – GOVERNMENT CODE §54957 and §54957.6**

President Sharman moved the meeting into closed session at 2:06 P.M.

President Sharman returned the meeting to open session at 4:06 P.M., stating that Direction was given to the District Labor Negotiator.

Vince Victorino joined the meeting at 4:06 P.M.

**APPROVAL OF “RESOLUTION NO 05-2021 KYLE ROBERSON APN 079-090-030  
ACCEPTANCE OF SEWERAGE FACILITIES**

Item was tabled until next meeting.

No action taken.

**REVIEW OF THE 2021 SEWER SYSTEM MASTER PLAN**

GM McCutcheon and Engineer Knibb lead a discussion of the review of the Sewer System Master Plan.

No action taken.

**REVIEW OF THE 2021 SEWER SYSTEM MANAGEMENT PLAN**

GM McCutcheon and Engineer Knibb lead a discussion of the review of the Sewer System Management Plan.

No action taken.

**SC-OR COMMISSIONERS' REPORT**

Director Fairbanks noted that the minutes from the last SC-OR meeting were made available at the beginning of the Board Meeting.

**BCSDA REPRESENTATIVES AND LAFCo REPORT**

No report given.

**FIELD OPERATIONS REPORT**

GM McCutcheon and the Board welcomed Vince Victorino back to the District as a Field Operations Technician (FOT). FOT Victorino updated the board on the field operations and ongoing projects. GM McCutcheon relayed to the Board that FOT Tomlinson had resigned from the District.

**PERSONNEL COMMITTEE MEETING REPORT**

Director Fairbanks updated the Board on the progress of the Personnel Committee.

**ADJOURNMENT**

There being no further business to come before the Board the meeting was adjourned at 4:37 P.M.

Respectfully submitted,

Kelly Hamblin,  
Clerk of the Board

**UNADOPTED  
LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
BOARD OF DIRECTORS SPECIAL MEETING  
AUGUST 5, 2021**

**CALL TO ORDER**

President Sharman called the meeting to order at 5:31 P.M. Directors present were Fairbanks, Marciniak, Mastelotto and Salvucci. General Manager (GM) McCutcheon represented the District. District Engineer Knibb joined the meeting via Zoom at 5:31 P.M. and Mike Nelson with LACO joined the meeting via Zoom at 5:32 P.M.

**SALUTE TO THE FLAG**

Director Salvucci led the meeting with the salute to the flag.

**MOMENT OF SILENCE**

President Sharman asked the Board to observe a moment of silence.

**APPROVAL OF IMPROVEMENT PLANS AND CONSIDER THE EXECUTION OF THE DEVELOPMENT AGREEMENT FOR THE CONSTRUCTION OF RIVER RANCH SEWER SYSTEM.**

After discussion it was moved by Director Mastelotto and seconded by Director Fairbanks to Approve and Authorize the District Engineer and the General Manager to Sign as 'Approved for Construction' the Improvement Plans and Authorize the President of the Board of Directors of Lake Oroville Area Public Utility District to Execute the Development Agreement for the River Ranch Sewer System. The motion passed with the following roll call vote:

Ayes: Directors Fairbanks, Marciniak, Mastelotto, Salvucci and Sharman.

**ADJOURNMENT**

There being no further business to come before the Board the meeting was adjourned at 5:47 P.M.

Respectfully submitted,

Scott McCutcheon  
General Manager, LOAPUD

**UNADOPTED  
LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
BOARD OF DIRECTORS SPECIAL MEETING  
AUGUST 27, 2021**

**CALL TO ORDER**

President Sharman called the meeting to order at 4:00 P.M. Directors present were Fairbanks, Marciniak, Mastelotto and Salvucci. General Manager (GM) McCutcheon represented the District. Guest included Nicholas Waters.

**SALUTE TO THE FLAG**

Director Salvucci led the meeting with the salute to the flag.

**MOMENT OF SILENCE**

President Sharman asked the Board to observe a moment of silence.

**CLOSED SESSION – GOVERNMENT CODE §54957**

President Sharman moved the meeting into closed session at 4:03 P.M.

President Sharman returned the meeting to open session at 4:58 P.M., stating that direction was given to the previously designated District Labor Negotiator.

**ADJOURNMENT**

There being no further business to come before the Board the meeting was adjourned at 5:03 P.M.

Respectfully submitted,

Scott McCutcheon  
General Manager, LOAPUD

LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
Income Statement  
For the Accounting Period: 8 / 21

Combined Funds

Account Object	Description	----- Current Year -----				%
		Current Month	Current YTD	Budget	Variance	
Revenue						
41100	Sewer Service Charge	-40.62	-40.62	1,592,439.00	-1,592,479.62	
41150	Pumping Charge			127,322.00	-127,322.00	
41200	Kelly Ridge Pumping Chg (Taxes)		3,044.25	45,000.00	-41,955.75	7
<b>Total Revenue</b>		<b>-40.62</b>	<b>3,003.63</b>	<b>1,764,761.00</b>	<b>-1,761,757.37</b>	
Expenses						
51000	Administration					
60100	Salaries & Wages	19,094.20	37,288.42	249,062.00	211,773.58	15
60200	Sick Time Buy Back			3,000.00	3,000.00	
62100	Health Insurance	4,790.38	9,692.96	72,279.00	62,586.04	13
62150	HSA PAYABLE		833.32		-833.32	
62200	Dental Insurance	302.16	604.32	3,802.00	3,197.68	16
62250	Life Insurance	32.86	65.72	462.00	396.28	14
62300	Vision Insurance		253.00	3,003.00	2,750.00	8
62400	Deferred Comp 457	366.50	730.38	4,981.00	4,250.62	15
62450	CALPERS Contribution	14,017.42	28,021.10	84,575.00	56,553.90	33
62500	Workers Comp Ins.	-395.07	183.82	4,572.00	4,388.18	4
62550	Payroll Taxes/Ins.	1,377.82	2,755.25	20,864.00	18,108.75	13
65100	Office Utilities	-124.39	-124.39		124.39	
<b>Total Account</b>		<b>39,461.88</b>	<b>80,303.90</b>	<b>446,600.00</b>	<b>366,296.10</b>	<b>18</b>
51100	Director					
60100	Salaries & Wages	2,000.00	4,000.00	24,000.00	20,000.00	17
62300	Vision Insurance	232.00	232.00	5,000.00	4,768.00	5
62550	Payroll Taxes/Ins.	185.00	370.00	1,836.00	1,466.00	20
<b>Total Account</b>		<b>2,417.00</b>	<b>4,602.00</b>	<b>30,836.00</b>	<b>26,234.00</b>	<b>15</b>
57000	General Operating					
64100	Engineering Services	6,850.00	18,797.50	60,000.00	41,202.50	31
64150	Legal Services	2,485.00	2,837.00	36,000.00	33,163.00	8
64200	Accounting/Audit Services	11,200.00	11,200.00	20,400.00	9,200.00	55
64250	Insurance	3,705.58	11,116.74	44,600.00	33,483.26	25
64300	Software Maintenance & Tech Support	494.00	8,223.95	44,400.00	36,176.05	19
65100	Office Utilities	1,116.54	2,190.54	19,465.00	17,274.46	11
65150	Shop/Yard Utilities	636.78	659.81	10,380.00	9,720.19	6
66100	Office Supplies & Expenses	3,814.68	3,814.68	18,000.00	14,185.32	21
66150	Office Equipment	482.83	1,003.20	33,000.00	31,996.80	3
66200	Building & Yard Repairs / Maintenance	4.97	60.13	13,000.00	12,939.87	
66250	Small Tools & Consumables	2,970.48	2,988.86	22,700.00	19,711.14	13
66350	Outside services	1,020.48	1,626.26	5,000.00	3,373.74	33
67100	Education & Training			12,000.00	12,000.00	
67150	Membership/Subscriptions	246.22	1,366.56	9,900.00	8,533.44	14
67200	Permits & Licenses	669.23	4,245.33	14,150.00	9,904.67	30

LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
Income Statement  
For the Accounting Period: 8 / 21

Combined Funds

Account Object	Description	----- Current Year -----				%
		Current Month	Current YTD	Budget	Variance	
67250	Travel, Meals & Entertainment	309.75	309.75	3,000.00	2,690.25	10
67300	Elections			5,000.00	5,000.00	
67350	Bank Fees	2,516.80	2,516.80	10,800.00	8,283.20	23
67400	Safety Training	246.25	246.25	12,000.00	11,753.75	2
67450	Environmental			3,050.00	3,050.00	
67550	LAFCo Operating Fees		1,488.32	2,400.00	911.68	62
	<b>Total Account</b>	<b>38,769.59</b>	<b>74,691.68</b>	<b>399,245.00</b>	<b>324,553.32</b>	<b>19</b>
58000	Field					
60100	Salaries & Wages	17,398.16	40,804.44	353,683.00	312,878.56	12
60200	Sick Time Buy Back			3,000.00	3,000.00	
61150	Standby Wages	505.42	980.42	6,525.00	5,544.58	15
61200	Regular Overtime Wages			17,887.00	17,887.00	
61250	Call-Out Overtime Wages			7,680.00	7,680.00	
62100	Health Insurance	1,578.35	3,235.30	76,101.00	72,865.70	4
62150	HSA PAYABLE		624.99	12,500.00	11,875.01	5
62200	Dental Insurance	74.58	215.40	8,332.00	8,116.60	3
62250	Life Insurance	21.30	48.38	901.00	852.62	5
62300	Vision Insurance		1,153.71	6,006.00	4,852.29	19
62400	Deferred Comp 457	354.23	831.86	7,573.00	6,741.14	11
62450	CALPERS Contribution	1,499.10	3,069.82	125,669.00	122,599.18	2
62500	Workers Comp Ins.	-2,235.31	2,448.47	37,210.00	34,761.53	7
62550	Payroll Taxes/Ins.	1,400.68	3,329.69	35,507.00	32,177.31	9
63500	Boots and Uniforms			5,700.00	5,700.00	
65175	PUMP STATION UTILITIES	4,841.59	5,456.65	69,340.00	63,883.35	8
66300	Safety Supplies	922.24	922.24	6,000.00	5,077.76	15
66350	Outside services	394.15	885.50	7,000.00	6,114.50	13
68100	Routine Operations & Maintenance - Sewer System	1,607.10	3,536.61	9,000.00	5,463.39	39
68125	REPAIRS AND MAINTENANCE ON PUMP STATIONS		58.44	69,415.00	69,356.56	
68150	I & I Operations & Maintenance			43,200.00	43,200.00	
69100	Diesel Fuel			22,680.00	22,680.00	
69150	Gasoline			15,120.00	15,120.00	
69200	Oils & Grease			1,800.00	1,800.00	
69250	Heavy Equipment Repairs & Maintenance	296.74	296.74	13,000.00	12,703.26	2
69300	Auto Repairs & Maintenance	1,892.27	2,279.76	12,900.00	10,620.24	18
	<b>Total Account</b>	<b>30,550.60</b>	<b>70,178.42</b>	<b>973,729.00</b>	<b>903,550.58</b>	<b>7</b>
	<b>Total Expenses</b>	<b>111,199.07</b>	<b>229,776.00</b>	<b>1,850,410.00</b>	<b>1,620,634.00</b>	<b>12</b>
	Net Income from Operations	-111,239.69	-226,772.37			

LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
Income Statement  
For the Accounting Period: 8 / 21

Combined Funds

Account Object	Description	----- Current Year -----				%
		Current Month	Current YTD	Budget	Variance	
Other Revenue						
47150	Sewer Service Late Fees	-96.40	19,392.28		19,392.28	
47195	FUEL SALES	108.33	108.33		108.33	
47200	Interest	248.67	9,917.41	6,377.00	3,540.41	156
47250	RD Surcharge	-9.80	-9.80	362,148.00	-362,157.80	
47350	Current Sec Taxes		7,340.11	280,000.00	-272,659.89	3
47400	Current Unsec Tax		55.14	12,000.00	-11,944.86	
47450	Prior Unsec Tax		11.26		11.26	
47500	Other Taxes		1,224.38	3,600.00	-2,375.62	34
49000	Other Income	3,980.00	4,025.00		4,025.00	
						6
	<b>Total Other Revenue</b>	<b>4,230.80</b>	<b>42,064.11</b>	<b>664,125.00</b>	<b>-622,060.89</b>	<b>6</b>
Other Expenses						
81000	Capital Outlay					
81110	Equipment Purchase			345,055.00	345,055.00	
81200	District Projects-CIP			457,780.00	457,780.00	
	<b>Total Account</b>			<b>802,835.00</b>	<b>802,835.00</b>	
85000	Debt Service					
85200	Loan Principal		62,000.00	62,000.00		100
85250	Loan Interest Expense		51,425.00	101,533.00	50,108.00	51
	<b>Total Account</b>		<b>113,425.00</b>	<b>163,533.00</b>	<b>50,108.00</b>	<b>69</b>
87000	Other Expense					
74400	Depreciation			564,000.00	564,000.00	
	<b>Total Account</b>			<b>564,000.00</b>	<b>564,000.00</b>	
	<b>Total Other Expenses</b>	<b>0.00</b>	<b>113,425.00</b>	<b>1,530,368.00</b>	<b>1,416,943.00</b>	<b>7</b>
	<b>Net Income</b>	<b>-107,008.89</b>	<b>-298,133.26</b>			

LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
Operating Cash Report  
For the Accounting Period: 8/21

Fund/Account	Beginning Balance	Received	Transfers In	Disbursed	Transfers Out	Ending Balance
53 Sewer						
10001 Five Star Bank - General Acct.	606,588.07	93,356.44	124.39	226.10	112,614.55	587,228.25
10021 Five Star USDA	66,643.18	5.66	0.00	0.00	0.00	66,648.84
10031 Five Star Money Market	981,482.53	189.75	0.00	0.00	0.00	981,672.28
<b>Total Fund</b>	<b>1,654,713.78</b>	<b>93,551.85</b>	<b>124.39</b>	<b>226.10</b>	<b>112,614.55</b>	<b>1,635,549.37</b>
55 RIVER RANCH OROVILLE LLC						
10001 Five Star Bank - General Acct.	0.00	0.00	0.00	0.00	8,838.37	-8,838.37
71 Payroll Clearing						
10001 Five Star Bank - General Acct.	1,308.94	0.00	52,626.74	52,702.53	0.00	1,233.15
73 Claims Clearing						
10001 Five Star Bank - General Acct.	45,064.27	0.00	76,735.46	69,767.41	0.00	52,032.32
<b>Totals</b>	<b>1,701,086.99</b>	<b>93,551.85</b>	<b>129,486.59</b>	<b>122,696.04</b>	<b>121,452.92</b>	<b>1,679,976.47</b>

\*\*\* Transfers In and Transfers Out columns should match, with the following exceptions:

- 1) Cancelled electronic checks increase the Transfers In column. Disbursed column will be overstated by the same amount and will not balance to the Redeemed Checks List.
- 2) Payroll Journal Vouchers including local deductions with receipt accounting will reduce the Transfers Out column by the total amount of these checks.



LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
Combined Check Register  
For checks between: 08/01/21 - 08/31/21

Claims

Check #	Check Type	Vendor/Employee/Payee Number/Name	Check Amount	Period	Date Issued	Notes
-99881	Clm E	59 HSA BANK	1458.31	8/21	08/01/21	CL 1478 1458.31
-99880	Clm E	30 CA PUBLIC EMPLOYERS' RETIREMENT S	12262.67	8/21	08/13/21	CL 1492 12262.67
-99879	Clm E	30 CA PUBLIC EMPLOYERS' RETIREMENT S	108.75	8/21	08/13/21	CL 1493 108.75
-99878	Clm E	30 CA PUBLIC EMPLOYERS' RETIREMENT S	700.00	8/21	08/13/21	CL 1494 700.00
-89868*	Pay P	2 ROBERT L BRODERSON	1784.05	8/21	08/13/21	
-89867	Pay P	18 JOSHUA FREEMAN	1164.14	8/21	08/13/21	
-89866	Pay P	4 KELLY J HAMBLIN	1399.97	8/21	08/13/21	
-89865	Pay P	10 SCOTT A MCCUTCHEON	2347.70	8/21	08/13/21	
-89864	Pay P	15 SHAWN PETERSON	1512.00	8/21	08/13/21	
-89863	Pay P	11 ANNELYN A RACKLEY	524.79	8/21	08/13/21	
-89862	Pay P	19 VINCENT M VICTORINO	1889.36	8/21	08/13/21	
-89861	Pay P	CALPERS 457 CAL 457	1303.45	8/21	08/13/21	
-89860	Pay P	PERS CLASS CAL PERS CLASSIC	1079.06	8/21	08/13/21	
-89859	Pay P	PEPRA CAL PERS PEPRA	1660.20	8/21	08/13/21	
-89858	Pay P	CA TRAIN (ETT) EDD	824.02	8/21	08/13/21	
-89857	Pay P	FIT EFTPS	4181.11	8/21	08/13/21	
-89856	Pay P	HEALTH INS LAKE OROVILLE AREA PUD	3318.96	8/21	08/13/21	
-89855	Pay P	AD&D LOPUD	696.19	8/21	08/13/21	
-89854	Pay P	2 ROBERT L BRODERSON	1628.36	8/21	08/27/21	
-89853	Pay P	18 JOSHUA FREEMAN	1164.14	8/21	08/27/21	
-89852	Pay P	4 KELLY J HAMBLIN	1399.97	8/21	08/27/21	
-89851	Pay P	16 ROBERT MARCINIAK	364.60	8/21	08/27/21	
-89850	Pay P	9 ANGELA D MASTELOTTO	364.60	8/21	08/27/21	
-89849	Pay P	10 SCOTT A MCCUTCHEON	2347.70	8/21	08/27/21	
-89848	Pay P	15 SHAWN PETERSON	1726.02	8/21	08/27/21	
-89847	Pay P	11 ANNELYN A RACKLEY	361.65	8/21	08/27/21	
-89846	Pay P	19 VINCENT M VICTORINO	1751.50	8/21	08/27/21	
-89845	Pay P	CALPERS 457 CAL 457	1293.03	8/21	08/27/21	
-89844	Pay P	PERS CLASS CAL PERS CLASSIC	1079.06	8/21	08/27/21	
-89843	Pay P	PEPRA CAL PERS PEPRA	1660.20	8/21	08/27/21	
-89842	Pay P	CA TRAIN (ETT) EDD	801.21	8/21	08/27/21	
-89841	Pay P	FIT EFTPS	4352.04	8/21	08/27/21	
-89840	Pay P	HEALTH INS LAKE OROVILLE AREA PUD	3322.31	8/21	08/27/21	
-89839	Pay P	AD&D LOPUD	696.21	8/21	08/27/21	
22483*	Clm SC	38 COMCAST	353.78	7/21	08/06/21	CL 1467 353.78
22484	Clm SC	46 DATATREE	99.00	7/21	08/06/21	CL 1471 99.00
22485	Clm SC	156 DEPARTMENT OF TOXIC SUBSTANCES CO	7.50	7/21	08/06/21	CL 1475 7.50
22486	Clm SC	78 MINASIAN LAW FIRM	352.00	7/21	08/06/21	CL 1459 352.00
22487	Clm SC	79 MIRY'S CLEANING SERVICES	260.00	7/21	08/06/21	CL 1476 260.00
22488	Clm SC	95 PARAMEX	350.00	7/21	08/06/21	CL 1462 350.00
22489	Clm SC	102 QUADIENNT LEASING USA, INC	344.31	7/21	08/06/21	CL 1472 344.31
22490	Clm SC	108 RIEBES AUTO PARTS	112.52	7/21	08/06/21	CL 1461 54.08 CL 1473 58.44
22491	Clm SC	119 STREAMLINE	200.00	7/21	08/06/21	CL 1470 200.00
22492	Clm SC	141 VISTA NET, INC.	3250.95	7/21	08/06/21	CL 1463 1791.86 CL 1464 664.71 CL 1465 60.00 CL 1466 734.38

Check Types: MC=Manual Claim, SC=System Claim, V=Void (never in system), E=ACH  
P=Payroll, C=Cancelled (cancelled in system), R=Reissued, D=Deleted (deleted in system)

Claims

Check #	Check Type	Vendor/Employee/Payee Number/Name	Check Amount	Period	Date Issued	Notes
22493	Clm SC	999998 DEE G FAIRBANKS	232.00	8/21	08/10/21	CL 1496 232.00
22494	Clm SC	7 ALHAMBRA	88.33	8/21	08/13/21	CL 1491 88.33
22495	Clm SC	14 BETTER DEAL EXCHANGE	54.75	8/21	08/13/21	CL 1495 54.75
22496	Clm SC	40 COMP, INC	305.15	8/21	08/13/21	CL 1484 305.15
22497	Clm SC	68 KYSTINZ	922.24	8/21	08/13/21	CL 1477 922.24
22498	Clm SC	93 PACIFIC GAS & ELECTRIC	5099.33	8/21	08/13/21	CL 1498 5099.33
22499	Clm SC	97 PAYGOV.US	2516.80	8/21	08/13/21	CL 1487 2516.80
22500	Clm SC	102 QUADIENT LEASING USA, INC	241.01	8/21	08/13/21	CL 1497 241.01
22501	Clm SC	106 RECOLOGY BUTTE COLUSA COUNTIES	92.72	8/21	08/13/21	CL 1481 92.72
22502	Clm SC	115 SOUTH FEATHER WATER	33.11	8/21	08/13/21	CL 1480 33.11
22503	Clm SC	133 UMPQUA BANK	1019.12	8/21	08/13/21	CL 1488 482.34 CL 1489 273.27 CL 1490 263.51
22504	Clm SC	136 USA NORTH 811	576.82	8/21	08/13/21	CL 1486 576.82
22505	Clm SC	141 VISTA NET, INC.	185.00	8/21	08/13/21	CL 1483 185.00
22506	Clm SC	999998 JOSHUA FREEMAN	84.91	8/21	08/16/21	CL 1506 84.91
22507	Clm SC	11 ANSWERLINE COMMUNICATIONS	312.15	8/21	08/20/21	CL 1503 312.15
22508	Clm SC	14 BETTER DEAL EXCHANGE	142.15	8/21	08/20/21	CL 1499 29.20 CL 1518 12.98 CL 1519 4.76 CL 1520 19.46 CL 1521 75.75
22509	Clm SC	39 COMER'S PRINT SHOP	2555.04	8/21	08/20/21	CL 1516 2383.37 CL 1517 171.67
22510	Clm SC	48 DEL MAR EQUIPMENT	196.27	8/21	08/20/21	CL 1522 196.27
22511	Clm SC	78 MINASIAN LAW FIRM	8330.00	8/21	08/20/21	CL 1504 2485.00 CL 1505 5845.00
22512	Clm SC	81 MME	81.31	8/21	08/20/21	CL 1514 51.48 CL 1515 29.83
22513	Clm SC	95 PARAMEX	89.00	8/21	08/20/21	CL 1502 89.00
22514	Clm SC	109 SAUERS ENGINEERING INC	9843.37	8/21	08/20/21	CL 1509 4702.50 CL 1510 2147.50 CL 1511 518.37 CL 1512 1485.00 CL 1513 990.00
22515	Clm SC	141 VISTA NET, INC.	210.00	8/21	08/20/21	CL 1501 210.00
22516	Clm SC	145 XEROX CORPORATION	241.82	8/21	08/20/21	CL 1500 241.82
22517	Clm SC	12 AT & T/SBC	345.73	8/21	08/27/21	CL 1526 345.73
22518	Clm SC	17 BLUE SHIELD OF CA	6900.01	8/21	08/27/21	CL 1534 6900.01
22519	Clm SC	32 CA WATER SERVICE	66.48	8/21	08/27/21	CL 1532 18.06 CL 1533 48.42
22520	Clm SC	84 NORTH VALLEY BUSINESS SYSTEMS	219.09	8/21	08/27/21	CL 1525 219.09
22521	Clm SC	87 ORENCO SYSTEMS	215.92	8/21	08/27/21	CL 1530 215.92
22522	Clm SC	92 PACE SUPPLY CORP	467.64	8/21	08/27/21	CL 1524 467.64
22523	Clm SC	115 SOUTH FEATHER WATER	93.72	8/21	08/27/21	CL 1527 24.84 CL 1528 16.26 CL 1529 29.04 CL 1531 23.58

Check Types: MC=Manual Claim, SC=System Claim, V=Void (never in system), E=ACH  
P=Payroll, C=Cancelled (cancelled in system), R=Reissued, D=Deleted (deleted in system)

09/09/21  
09:11:16

LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
Combined Check Register  
For checks between: 08/01/21 - 08/31/21

Page: 3 of 3  
Report ID: W100X1

Claims

Check #	Check Type	Vendor/Employee/Payee Number/Name	Check Amount	Period	Date Issued	Notes
22524	Clm SC	69 LAKE OROVILLE AREA PUD	1402.29	8/21	08/27/21	CL 1536 1402.29
88047*	Pay P	AFLAC 125 AFLAC	143.79	8/21	08/09/21	
88048	Pay P	5 DARIN K KAHALEKULU	1733.67	8/21	08/13/21	
88049	Pay P	6 DEE G FAIRBANKS	364.60	8/21	08/27/21	
88050	Pay P	5 DARIN K KAHALEKULU	1733.67	8/21	08/27/21	
88051	Pay P	17 RICHARD SALVUCCI	364.60	8/21	08/27/21	
88052	Pay P	13 WILLIAM P SHARMAN	364.60	8/21	08/27/21	
Grand Total # of Checks: 82			Total: 115725.60	Total Claims	63023.07	Total Payroll 52702.53

Check Types: MC=Manual Claim, SC=System Claim, V=Void (never in system), E=ACH  
P=Payroll, C=Cancelled (cancelled in system), R=Reissued, D=Deleted (deleted in system)



## **Manager's Report**

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 5 – Items Removed From Consent Agenda



## **Manager's Report**

To: Board of Directors  
From: Scott McCutcheon, General Manager  
Date: September 14, 2021

RE: Item No. 6 – Presentation by Dania Jimmerson of the State Water Board Regarding Palermo Wastewater

The issue of providing sewerage service to Palermo has been a topic of study and discussion in Butte County for over a decade. Ms. Dania Jimmerson will present to the Board via zoom the details of potential funding availability, and the process of applying for these funds on this topic.

**Attachment Included**

# Wastewater Consolidation Program

## Palermo Community - Potential WWC Project



**Dania Jimmerson, P.E.**  
WWC Program Coordinator

[Dania.Jimmerson@waterboards.ca.gov](mailto:Dania.Jimmerson@waterboards.ca.gov)



## Manager's Report

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 7– Approval of Resolution No. 05-2021 Kyle Roberson  
APN 079-090-030 Acceptance of Sewerage Facilities

In 1990 application was made to the District for a mainline extension for a proposed development. A development agreement was executed, and installation of the sewer facilities began. Due to unforeseen events, the project was never completed through to acceptance, the subdivision map was never recorded, and the facilities were never conveyed to the District. The project has changed hands since then, and in 2020, the current owner began to plan to build a single family home on the property, using Better Builders as the contractor of choice.

The owner has requested that the District accept a portion of the already installed mainline in order to serve the proposed residence, and possibly, future residences. A new easement has been prepared and accepted by the District, the existing line has been inspected by District staff, and any recommended upgrades or modifications to the line have been performed.

By action through resolution the Lake Oroville Area Public Utility District Board of Directors can accept the sewer system into the District's system, which will enable connections to be made.

**Attachment Included**

*Recommended Action:* Adopt Resolution No. 05-2021 Kyle Roberson APN 079-090-030 Acceptance of Sewerage Facilities.

**Finish Resolution with Roll Call**

**RESOLUTION NO. 05-2021**  
**LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT**  
**KYLE ROBERSON**  
**APN 079-090-030**  
**ACCEPTANCE OF SEWERAGE FACILITIES**

WHEREAS, Kyle Roberson is the owner (Owner) of that parcel identified as Assessor's Parcel Number 079-090-030; and,

WHEREAS, Sewerage Facilities were installed on Assessor's Parcel Number 079-090-030 under a separate Development Agreement but were never accepted into the District; and,

WHEREAS, the Sewerage Facilities previously installed have been modified by the Owner, and have been inspected according to District requirements; and,

WHEREAS, Owner has submitted a statement offering the Sewerage Facilities for dedication to District.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Lake Oroville Area Public Utility District, that the Sewerage Facilities installed on Assessor's Parcel Number 079-090-030, as modified by Owner, be approved and accepted as part of District's maintained system.

PASSED AND ADOPTED this \_\_\_\_ day of \_\_\_\_\_ 2021, at Oroville, California, after being moved by Director \_\_\_\_\_ and seconded by Director \_\_\_\_\_, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAINED:

LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT

By \_\_\_\_\_  
William P. Sharman, President

ATTEST:

\_\_\_\_\_  
Kelly Hamblin, Clerk of the Board





## Manager's Report

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 8 –Review and Authorize Execution of the Memorandum of Understanding (MOU) for the LEAP and REAP Grants

The Board is requested to review the attached MOU and authorize the General Manager to execute them for the LEAP and REAP grant funds that have been awarded to the District for the planning of infrastructure to support housing in Butte County. The grant funds are administered by Butte County which is why the MOU is required. The agreement has been reviewed by District Legal Counsel.

### Attachment Included

*Recommended Action:* Authorize the General Manager to execute the attached MOU for LEAP and REAP grant funding.

**MEMORANDUM OF UNDERSTANDING**  
**Between**  
**County of Butte**  
**And**  
**Lake Oroville Area Public Utility District (LOAPUD)**

This Memorandum of Understanding (MOU) is by and between the County of Butte, a political subdivision of the State of California, through its Butte County Department of Development Services, hereinafter referred to as "COUNTY" and Lake Oroville Area Public Utility District (LOAPUD), a public utility district, herein referred to as "LOAPUD". This MOU shall set forth the types and terms of collaborative services between COUNTY and LOAPUD in relation to:

**NOVATION:** The parties substitute this MOU for the letter agreement dated June 29, 2020, and intend to extinguish all obligations set forth in that letter and replace all obligations of parties, without recourse, with the valid terms, conditions and consideration contained herein.

**PURPOSE**

This MOU shall outline the procedures for COUNTY facilitating the request for reimbursement by LOAPUD through the State of California Department of Housing and Community Development's Local Early Action Planning (LEAP) grant funds and the Regional Early Action Planning (REAP) grant funds, the REAP grant funds being sub-allocated to COUNTY by Butte County Association of Governments (BCAG).

LOAPUD is in the process of designing a regional sewer lift station. The lift station shall serve the potential area within the South Oroville/Las Plumas Area as identified in the Butte County General Plan 2030. The lift station shall be designed to accommodate 1,440 equivalent dwelling units, the majority of which shall consist of residential customers.

The Las Plumas Area Gravity Sewer Interceptor Planning Project ("Planning Project") is composed of two phases with each phase funded by one of the two aforementioned grants as indicated below:

**LEAP GRANT:** Phase 1 of this effort includes a proposed new pipeline serving the area north of the new lift station between Ophir Road and the Via Canela Road. The planning and design aspects of this Phase 1 project are the subject of the LEAP Grant application.

**REAP GRANT:** Phase 2 extends the proposed gravity sewer interceptor further north to Las Plumas Avenue potentially accommodating new residential development between Lincoln Boulevard to the west and the Via Pacana Road and Las Plumas High School to the east. The planning and design aspects of this Phase 2 project are the subject of the REAP Grant application.

The COUNTY and LOAPUD enter into this MOU to establish their respective roles and responsibilities relating to the management and disbursement of grant funds for the Las Plumas Area Gravity Sewer Interceptor Planning Project Phase 1 and Phase 2.

**SERVICES TO BE PROVIDED:**

LEAP Grant: The Project Timeline and Budget – LEAP Reimbursable Expenses, which is made part of this Memorandum of Understanding by this reference and incorporated herein, outlines the tasks and budget to be completed for Phase 1 of the Las Plumas Area Gravity Sewer Interceptor Planning Project.

REAP Grant: The Project Timeline and Budget – REAP Reimbursable Expenses, which is made part of this Memorandum of Understanding by this reference and incorporated herein, outlines the tasks and budget to be completed for Phase 2 of the Las Plumas Area Gravity Sewer Interceptor Planning Project.

**LOAPUD and COUNTY jointly agree to:**

1. LOAPUD shall have final oversight, review, and approval authority over all documents, including but not limited to, designs, specification, and plans regarding the Las Plumas Area Gravity Sewer Interceptor Planning Project.
2. COUNTY and LOAPUD understand that the COUNTY, through LEAP Grant funds, shall assist with the cost of the Las Plumas Area Gravity Sewer Interceptor Planning Project, Phase 1. COUNTY shall not be responsible for costs incurred in excess of the amount funded by LEAP Grant.
3. COUNTY and LOAPUD understand that the COUNTY, through REAP Grant funds, shall assist with the cost of the Las Plumas Area Gravity Sewer Interceptor Planning Project, Phase 2. COUNTY shall not be responsible for costs incurred over the amount funded by the REAP Grant.
4. COUNTY and LOAPUD agree to process the Las Plumas Area Gravity Sewer Interceptor Planning Project Phase 1 and 2, through to completion in a timely fashion that meets the both the LEAP and REAP grant funding deadlines.
5. COUNTY and LOAPUD agree to the following sequence of actions to be taken to complete processing of the Las Plumas Area Gravity Sewer Interceptor Planning Project Phase 1 and 2:
  - a. COUNTY understands that LOAPUD desires to retain a Consultant(s) to prepare a variety of planning documents in support of the Las Plumas Area Gravity Sewer Interceptor Planning Project Phase 1 and Phase 2. LOAPUD shall select and contract with qualified Consultant(s) for preparation of the Las Plumas Area Gravity Sewer Interceptor Planning Project Phase 1 and Phase 2. LOAPUD shall be responsible for ensuring the selected Consultant(s)

adhere to the reporting requirements included in this contract and/or the LEAP and REAP grant requirements.

b. Preparation of all work as indicated in the scopes of work for the LEAP and REAP grants in support of the Las Plumas Area Gravity Sewer Interceptor Planning Project Phase 1 and Phase 2 by the selected Consultant(s) shall utilize a LOAPUD approved format for all documents and work products.

c. LOAPUD shall collect Consultant(s) invoices on a monthly basis and shall be responsible for transmitting all invoices, billing, costs and any supporting documentation to the COUNTY in a timely manner

d. COUNTY as the administrator/grantee of LEAP grant funds and grantee of REAP grant funds thru BCAG, shall timely submit grant claims to facilitate timely payment of all allowable grant costs supported by complete claims that adhere to grant claim submission requirements to LOAPUD.

**TERM:** The term of this MOU shall become effective upon date of execution and terminate 8/1/2023.

**COMPENSATION:** This MOU provides for transfer of LEAP and REAP grant funds to LOAPUD for the Las Plumas Area Gravity Sewer Interceptor Planning Project Phase 1 and Phase 2.

COUNTY shall transfer funds to LOAPUD upon review and approval of LOAPUD invoices by the appropriate entity. COUNTY does not pay reimbursable expenses other than those listed in the budgets: Project Timeline and Budget – LEAP Reimbursable Expenses and Project Timeline and Budget – REAP Reimbursable Expenses. LOAPUD shall submit invoices monthly, separated by Phase, for services provided.

All invoices must include:

1. Cover letter describing the work completed during invoice period along with any corresponding back up information
2. Clearly state the phase of the project, tasks, deliverables, cost of each task completed, and total cost of labor completed during the invoice period
3. Identification of each LOAPUD personnel who provided services during the period of the invoice and their job classification
4. Dates and times of their project work
5. The number of hours worked and hourly rates for each of LOAPUD's personnel
6. Invoices must be provided separately for Phase 1 of the Las Plumas Area Gravity Sewer Interceptor Planning Project and Phase 2 of the Las Plumas Area Gravity Sewer Interceptor Planning Project
7. Copies of Consultant(s) invoices and copies of all supporting documentation

LOAPUD shall be responsible for making sure that Consultant(s) invoices includes the items below:

1. Clearly state the phase of the project, tasks, deliverables, cost of each task completed, and total cost of labor completed during the invoice period
2. Identification of each of Consultant(s) personnel who provided services during the period of the invoice and their job classification
3. Dates and times of their project work
4. The number of hours worked and hourly rates for each of Consultant(s) personnel
5. Invoices must be provided separately for Phase 1 of the Las Plumas Area Gravity Sewer Interceptor Planning Project and Phase 2 of the Las Plumas Area Gravity Sewer Interceptor Planning Project
6. Copies of all supporting documentation

LEAP grant funds for Phase 1 of the Las Plumas Area Gravity Sewer Interceptor Planning Project shall not exceed the total budgeted amount of \$286,300 as listed in Project Timeline and Budget – LEAP Reimbursable Expenses.

REAP grant funds for Phase 2 of the Las Plumas Area Gravity Sewer Interceptor Planning Project shall not exceed the total budgeted amount of \$216,250 as listed in Project Timeline and Budget – REAP Reimbursable Expenses.

COUNTY recognizes that the budgeted deliverable amounts are based upon estimates and may change. Within each phase, funds may be shifted between budgeted line items if approved by both COUNTY and LOAPUD in writing without a formal amendment, as long as the adjustment does not exceed the total budgeted amount.

**Grant Requirements:** COUNTY and LOAPUD shall comply with all the requirements of the LEAP and REAP grants. A copy of the Letter Agreement – Agreement between the County of Butte and Butte County Association of Governments (BCAG) for sub-allocation of Regional Early Action Planning (REAP) grant funds is attached to and hereby incorporated into this Memorandum of Understanding by this reference.

A copy of the LEAP STANDARD AGREEMENT is attached to and hereby incorporated into this agreement by this reference as LEAP STANDARD AGREEMENT.

LOAPUD is a public agency, working under its own supervision and direction and is not a representative or employee of COUNTY.

**Indemnification:** LOAPUD shall defend, indemnify, and hold County harmless against claims, actions, or liability for injury, damage, or loss suffered by third persons, and for violations of federal, state, or local law or regulation, arising out of or relating to this Agreement.

**INSURANCE:**

- A. Without limiting LOAPUD indemnification, LOAPUD shall procure and maintain for the duration of this MOU, insurance against claims for injuries to persons or damages to property that may arise from, or be in connection with the performance of the work hereunder by LOAPUD, and

LOAPUD agents, representatives, employees, and subcontractors. At the very least, LOAPUD shall maintain the insurance coverage, limits of coverage and other insurance requirements as described in Attachment I, Insurance Requirements, which by reference is made part of this MOU. Certificates evidencing the maintenance of LOAPUD's insurance coverage shall be filed with COUNTY.

- B. The County of Butte self-insures third party liability claims alleging bodily injury, personal injury, property damage, or public officials' errors and omissions. The COUNTY self-insures losses up to \$100,000 per occurrence. Losses exceeding \$100,000 are covered by an excess insurance purchased through the Public Risk Innovation, Solutions, and Management (PRISM). The excess policy provides coverage for losses up to 25 million dollars, which the COUNTY is legally required to pay because of liability imposed by law or assumed by contract. A recent actuarial evaluation performed by Bickmore Risk Services found the COUNTY's self-insurance reserves to be adequately funded.

**INTEGRATION CLAUSE AND ALTERATION OF TERMS:** This instrument contains the entire agreement between the parties hereto and supersedes any and all prior written and/or oral agreements. This Agreement may be altered or modified only in writing signed by the parties hereto.

**NOTICES:** All notices, claims, correspondence, reports and/or statements authorized or required by this MOU shall be addressed as follows:

COUNTY:  
Butte County Department of Development Services  
Attention: Paula M. Daneluk, AICP, Director  
7 County Center Drive  
Oroville CA 95965

CONTRACTOR:  
Lake Oroville Area Public Utility District  
Attention: General Manager  
1960 Elgin Street  
Oroville CA 95966

**DISPUTE RESOLUTION:** Any disagreements that may occur shall be resolved at the lowest possible level within COUNTY and LOAPUD and with a cooperative spirit. COUNTY and LOAPUD shall designate individuals who are responsible to resolve issues in a timely fashion regarding this MOU. Should agreement not be reached between COUNTY and LOAPUD after working through the process already prescribed, then the matter shall go for discussion and consideration between the Directors and/or hearing body of each agency.

**APPLICABLE LAW AND FORUM:** This MOU shall be construed and interpreted according to California law and any action to enforce the terms of this MOU for the breach thereof shall be brought and tried in the County of Butte.

**TERMINATION:** COUNTY and LOAPUD each reserve the right to immediately terminate this MOU, notifying each other likewise in writing.

**NO DELEGATION OR ASSIGNMENT:** LOAPUD shall not delegate, transfer or assign its duties or rights under this MOU, either in whole or in part, directly or indirectly, by acquisition, asset sale, merger, change of control, operation of law or otherwise, without the prior written consent of COUNTY and any prohibited delegation or assignment shall render the contract in breach. Upon consent to any delegation, transfer or assignment, the parties will enter into an amendment to reflect the transfer and successor to LOAPUD. COUNTY shall not be obligated to make payment under the Agreement until such time that the amendment is entered into.

**SIGNATURE AUTHORITY:** Each party has the full power and authority to enter into and perform this MOU, and the person signing this MOU on behalf of each Party has been properly authorized and empowered to enter into this MOU.

IN WITNESS WHEREOF, the parties hereto have executed this MOU as of the day and year last below written.

**CONTRACTOR**

**COUNTY**

\_\_\_\_\_  
LOAPUD General Manager      Date  
Lake Oroville Area Public Utility  
District

\_\_\_\_\_  
Tamara Ingersoll      Date  
Deputy Director  
General Services Department

\_\_\_\_\_  
Paula M. Daneluk, AICP, Director      Date

Butte County  
Department of Development Services

Approved as to Form:

BUTTE COUNTY COUNSEL

By: \_\_\_\_\_  
Date

Reviewed for Contract Policy Compliance

By: \_\_\_\_\_  
General Services      Date  
Contract Division



# ATTACHMENT I

## INSURANCE REQUIREMENTS

Please provide Attachment I to your insurance agent.

### SECTION I – INSURANCE TO BE MAINTAINED BY LOAPUD

LOAPUD shall procure and maintain for the duration of this agreement, and for 1 year thereafter, insurance against claims for injuries to persons or damages to property which may arise from, or in connection with the performance of the Work hereunder by LOAPUD, LOAPUD's agents, representatives, employees, and subcontractors. Before the commencement of work, LOAPUD shall submit Certificates of Insurance and Endorsements evidencing that LOAPUD has obtained the following forms of coverage:

#### A. MINIMUM SCOPE AND LIMITS OF INSURANCE - Coverage shall be at least as broad as:

- 1) **Commercial General Liability (CGL):** Insurance Services Office Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **\$1,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
  
- 2) **Automobile Liability:** ISO Form Number CA 0001 covering any auto (Code 1) for corporate/business owned vehicles, or if LOAPUD has no owned autos, covering hired (Code 8) and non-owned autos (Code 9), with limits no less than **\$1,000,000** combined single limit per accident.
  
- 3) **Workers' Compensation Insurance:** As required by the State of California with Statutory Limits and Employer's Liability Insurance with limits of no less than **\$1,000,000** per accident for bodily injury and disease.

If LOAPUD maintains broader coverage and/or higher limits than the minimums shown above, County requires and shall be entitled to the broader coverage and/or higher limits maintained by LOAPUD. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to County.

**Application of Excess/Umbrella Liability Coverage:** LOAPUD may use a combination of primary and excess/umbrella insurance policies which provide coverage as broad as ("follow form" over) the underlying primary policies, to satisfy the required insurance provisions.

**B. OTHER INSURANCE PROVISIONS** - The insurance policies are to contain, or be endorsed to contain, the following provisions:

- 1) The County of Butte, its officers, officials, employees and volunteers shall be the additional insureds on the CGL policy for liability arising out of LOAPUD's operations under this agreement. (ISO Endorsement CG 20 26 or equivalent).
- 2) For any claims related to this agreement, LOAPUD's insurance coverage shall be primary insurance coverage at least as broad as ISO Form CG 20 01 04 13 as respects the County its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the County, its officers, officials, employees and volunteers shall be excess of LOAPUD's insurance and shall not contribute with it.
- 3) Each insurance policy required shall provide that coverage shall not be canceled, except with notice to the County.

**C. WAIVER OF SUBROGATION:** LOAPUD hereby grants to County a waiver of any right to subrogation which any insurer of said LOAPUD may acquire against the County by virtue of the payment of any loss under such insurance. LOAPUD agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the County has received a waiver of subrogation endorsement from the insurer.

**D. SELF-INSURED RETENTIONS:** Self-insured retentions must be declared to and approved by the County. The County may require LOAPUD to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or County.

**E. ACCEPTABILITY OF INSURERS:** Insurance is to be placed with insurers authorized to conduct business in the state with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the County.

**F. VERIFICATION OF COVERAGE:** LOAPUD shall furnish County with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the County **before** work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the LOAPUD's obligation to provide them. The County reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

**G. SPECIAL RISKS OR CIRCUMSTANCES:** County reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

## SECTION II – INSURANCE TO BE MAINTAINED BY LOAPUD’S CONTRACTORS AND/OR CONSULTANTS

### A. MINIMUM SCOPE AND LIMITS OF INSURANCE - Coverage shall be at least as broad as:

- 1) **Commercial General Liability (CGL):** Insurance Services Office Form CG 00 01 covering CGL on an “occurrence” basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **\$1,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
- 2) **Automobile Liability:** ISO Form Number CA 0001 covering any auto (Code 1) for corporate/business owned vehicles, or if contractor/consultant has no owned autos, covering hired (Code 8) and non-owned autos (Code 9), with limits no less than **\$1,000,000** combined single limit per accident.
- 3) **Workers’ Compensation Insurance:** As required by the State of California with Statutory Limits and Employer’s Liability Insurance with limits of no less than **\$1,000,000** per accident for bodily injury and disease.
- 4) **Professional Liability:** with limits no less than **\$1,000,000** per occurrence or claim, and **\$1,000,000** policy aggregate. *(Required for any architect, engineer, surveyor or other licensed professional engaged by LOAPUD to perform portions of the Project.)*
- 5) **Contractor’s Pollution Liability Insurance:** with limits no less than **\$1,000,000** per occurrence or claim, and **\$1,000,000** policy aggregate. *(Required if work involves environmental hazards.)*

### B. OTHER INSURANCE PROVISIONS - The insurance policies are to contain, or be endorsed to contain, the following provisions:

- 1) LOAPUD and the County of Butte, its officers, officials, employees and volunteers are to be covered as additional insureds on the CGL and Pollution policies with respect to liability arising out of ongoing and completed operations by or on behalf of the Contractor in the performance of this agreement.
- 2) The insurance provided to the additional insureds shall be primary to, and non-contributory with, any insurance or self-insurance program maintained by them.
- 3) Each insurance policy required shall provide that coverage shall not be canceled, except with notice to the County.

**C. WAIVER OF SUBROGATION:** Contractor hereby grants to LOAPUD and County a waiver of any right to subrogation which any insurer of said Contractor may acquire against the LOAPUD and County by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the LOAPUD or County has received a waiver of subrogation endorsement from the insurer.

The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of LOAPUD and the County.

**D. SELF-INSURED RETENTIONS:** Self-insured retentions must be declared to and approved by the LOAPUD.

**E. ACCEPTABILITY OF INSURERS:** Insurance is to be placed with insurers authorized to conduct business in the state with a current A.M. Best's rating of no less than A:VII.

**F. VERIFICATION OF COVERAGE:** Contractor shall furnish LOAPUD and the County with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by LOAPUD and the County **before** work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The County reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

**G. CLAIMS MADE POLICIES:** If any of the required policies provide coverage on a claims-made basis:

- 1) The Retroactive Date must be shown, and must be before the date of the contract or the beginning of contract work.
- 2) Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work.
- 3) If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the Contractor must purchase "extended reporting" coverage for a minimum of five (5) years after completion of contract work.
- 4) A copy of the claims reporting requirements must be submitted to the County for review.

**Project Timeline and Budget – LEAP Reimbursable Expenses**

Las Plumas Area Gravity Sewer Interceptor Phase 1

<b>TASK</b>	<b>BUGETED COST</b>	<b>BEGIN</b>	<b>END</b>	<b>DELIVERABLES</b>
CEQA Environmental Review	\$40,000	Upon MOU Execution	10/1/2022	Initial Study
	\$40,000			Wetland Delineation
	\$20,000			Biological Assessment
	\$20,000			Cultural Resource Survey
	\$40,000			CEQA Reports/ACE Review Concurrence
Easement/Right of Way Acquisition	\$25,000	10/1/2022	2/1/2023	ROW Survey
	\$10,500			Easement Appraisals
	\$14,000			Baseline Documentation
	\$14,000			Phase I Environmental Assessment
	\$7,000			Title Reports and Document
	\$7,000			Legal Support
	\$3,500			Recordation
Design Topographical Survey	\$8,000	2/1/2023	4/1/2023	Control, Benchmarks, Mapping
	\$7,300			Topo Map Aerial Photogrammetry
	\$1,200			Orthophoto
Project Design	\$7,900	4/1/2023	8/1/2023	Preliminary Design, Alignment Study
	\$20,900			Design Drawing & Technical Specifics
<b>Total Budgeted Cost</b>	<b>\$286,300.00</b>			

**Project Timeline and Budget - REAP Reimbursable Expenses**

Las Plumas Area Gravity Sewer Interceptor Phase 2

<b>Scope of Work</b>	<b>Total Budgeted Cost</b>	<b>Begin Date</b>	<b>End Date</b>	<b>Deliverable</b>
Suballocation of funds to Butte County for planning and design tasks for Las Plumas Area Gravity Sewer Interceptor Phase 2 in southern Oroville area in association with Lake Oroville Area Public Utilities District	<b>Total: \$216,250</b>	Upon MOU Execution	July 2023	CEQA document; Easement/Right of Way acquisition; Topographical Survey; Pipeline design drawings and technical specifications
<b>Task</b>	<b>Budgeted Cost</b>	<b>Begin Date</b>	<b>End Date</b>	<b>Deliverable</b>
Subtask 2.1- CEQA Environmental Review	\$120,960	Upon MOU Execution	11-30-2022	CEQA Document and LOAPUD BOD (Board of Directors) Approval for Purposes of CEQA
Subtask 2.2- Easement/Right of Way Acquisition	\$ 60,950	10-1-2022	1-31-2023	ROW (Right of Way) Acquisition and Recordation
Subtask 2.3- Design Topographical Survey	\$ 13,330	2-1-2023	3-31-2023	Topographical Survey
Subtask 2.4- Project Design	\$ 21,010	4-1-2023	6-30-2023	Project Design (Plans and Specifications) and LOAPUD BOD Project Approval
Subtask 2.5- Project Closeout	\$ 0	7-1-2023	7-31-2023	Final Invoicing and Project Closeout Documents

LEAP STANDARD AGREEMENT

STATE OF CALIFORNIA - BUSINESS CONSUMER SERVICES AND HOUSING AGENCY

GAVIN NEWSOM Governor

**DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
ADMINISTRATION AND MANAGEMENT DIVISION Business  
and Contract Services Branch**

2020 W. El Camino Avenue, Suite 130, 95833  
P. O. Box 952054

(916) 263Sacramen-to6928, CA / FAX 94252(916-2054) 263 -6917 [www.hcd.ca.gov](http://www.hcd.ca.gov)



Paula Daneluk  
Director  
County of Butte  
7 County Center Drive Oroville,  
CA 95965

Dear Paula Daneluk:

**RE:** County of Butte

**Contract No. 20-LEAP-16000**

Congratulations on your 2019 Local Early Action Planning (LEAP) award. Attached is an electronic copy of the Standard Agreement with Exhibits A through E:

**A. Standard Agreement (STD 213 and Exhibits A through E)**

**STD 213 - Cover page**

**Exhibit A** - Authority, Purpose and Scope of Work

**Exhibit B** - Budget Detail and Payment Provisions

**Exhibit C** - State of California General Terms and Conditions - GTC - 04/2017

*Exhibit C is now incorporated by reference; please see the STD 213 for additional information.*

**Exhibit D** - LEAP Program General Terms and Conditions

**Exhibit E** - Special Conditions

**B. For expeditious handling of the contract, please adhere to the following:**

1. Review the entire Agreement thoroughly and, if necessary, discuss the requirements with your legal and financial advisors.
2. The person or persons authorized by the Resolution(s), must provide an **original signature, printed name, title and date, using blue ink**, on the lower left-hand section entitled "Contractor" on the STD 213 and/or on page 2 of the STD 213, if applicable.

C. **The Department now offers two options for returning signed STD 213; please review and complete one of the following options:**

3. **Option One:** For electronic signature processing, reply to this Standard Agreement email notification with the attached, fully signed STD 213 page.

County of Butte  
20-LEAP-16000  
Page 2 of 2

All signatures must be in **blue ink**. All signers must be included in the reply email and confirm acceptance of e-signing the Agreement.

4. **Option Two:** Print one copy of the Standard Agreement, STD 213. Do not send photocopies of the signed STD 213 page. The hardcopy must be an original, **wet** signature and in **blue ink**; do not return the Exhibitsto HCD.
5. **Note:** If the resolution did not authorize a designated official to sign the STD 213 and amendments thereto, your governing body must adopt a resolution authorizing a designated official(s) to sign the STD 213 and any subsequent amendments. If the authorized designee as reflected in the resolution, the awarded NOFA amount or your entity status has changed, you are required to provide, to the Department, a new resolution consistent with the terms of the NOFA award and adopted by your Board.
6. Return the e-signed copy or the signed hardcopy of the STD 213; and, if applicable, the certified resolution within 30 days from the date of this letter to the following address:

**Department of Housing and Community Development**  
**Business & Contract Services Branch**  
**Contracts Office, Attention: Diana Malimon 2020**  
**W. El Camino Avenue, Suite 130 Sacramento, CA 95833**

7. Maintain a complete electronic version of the STD 213 and Exhibits for your pending file. **Note:** **The Standard Agreement contract is not effective until it is signed by the Awardee's designated official and the Department.**

**The Department reserves the right to cancel any pending Standard Agreement in its entirety if not returned within the required 30-day period.**

Please contact Paul McDougall Program Manager, at [paul.mcdougall@hc.dca.gov](mailto:paul.mcdougall@hc.dca.gov), if you have any questions regarding the Standard Agreement or the provisions therein.

Sincerely, Diana



Malimon  
Contracts Analyst

cc: Paul McDougall Program Manager

STATE OF CALIFORNIA - DEPARTMENT OF GENERAL SERVICES

**STANDARD AGREEMENT**  
 STD 213 (Rev. 03/2019)

AGREEMENT NUMBER  
 20-LEAP-16000

PURCHASING AUTHORITY NUMBER (if applicable)

1. This Agreement is entered into between the Contracting Agency and the Contractor named below:

CONTRACTING AGENCY NAME  
 DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

CONTRACTOR'S NAME  
 Butte County

2. The term of this Agreement is:

START DATE  
 Upon HCD Approval

THROUGH END DATE  
 06/30/2024

3. The maximum amount of this Agreement is:  
 \$300,000.00

4. The parties agree to comply with the terms and conditions of the following exhibits, which are by this reference made a part of the Agreement.

EXHIBITS	TITLE	PAGES
Exhibit A	Authority, Purpose and Scope of Work	2
Exhibit B	Budget Detail and Payment Provisions	5
Exhibit C*	State of California General Terms and Conditions	GTC - 04/2017
Exhibit D	LEAP General Terms and Conditions	9
Exhibit E	Special Conditions	0
TOTAL NUMBER OF PAGES ATTACHED		16

*Items shown with an asterisk (\*), are hereby incorporated by reference and made part of this agreement as if attached hereto.  
 These documents can be viewed at <https://www.dgs.ca.gov/OLS/Resources>*

IN WITNESS WHEREOF, THIS AGREEMENT HAS BEEN EXECUTED BY THE PARTIES HERETO.

**CONTRACTOR**

CONTRACTOR NAME (if other than an individual, state whether a corporation, partnership, etc.)

Butte County

CONTRACTOR BUSINESS ADDRESS 7 County Center Drive	CITY Oroville	STATE CA	ZIP 95965
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PRINTED NAME OF PERSON SIGNING Paula M. Daneluk	TITLE Director, Butte County Department of Development Services
--	--

CONTRACTOR AUTHORIZED SIGNATURE <i>Paula Daneluk</i>	DATE SIGNED 4/7/21
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**STATE OF CALIFORNIA**

CONTRACTING AGENCY NAME  
 Department of Housing and Community Development

CONTRACTING AGENCY ADDRESS 2020 W. El Camino Ave., Suite 130	CITY Sacramento	STATE CA	ZIP 95833
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PRINTED NAME OF PERSON SIGNING Shaun Singh	TITLE Contracts Manager, Business & Contract Services Branch
---	--

CONTRACTING AGENCY AUTHORIZED SIGNATURE	DATE SIGNED
---	-------------

California Department of General Services Approval (or exemption, if applicable)

Exempt per; SCM Vol. 1 4.04.A.3 (DGS memo dated 6/12/1981)

**EXHIBIT A**  
**AUTHORITY, PURPOSE AND SCOPE OF WORK**

**1. Authority**

Pursuant to Chapter 3.1 of the California Health and Safety Code (Ch. 159, Sec. 11, Stats. 2019), the State of California Department of Housing and Community Development (the "Department" or "State") has established the Local Early Action Planning Grants Program ("LEAP," or the "Program"), as defined in Health and Safety Code Section 50515, et seq., for Local Governments and Localities. In furtherance of the purpose of the Program, the Department has issued a Notice of Funding Availability ("NOFA") dated January 27, 2020. This Standard Agreement, along with all its exhibits (the "Agreement"), is entered into under the authority of, and in furtherance of, the purpose of the Program.

**2. Purpose**

In accordance with the authority cited above, the Grantee has been awarded financial assistance in the form of a grant from the Program. The Department has agreed to make the grant to provide financial assistance for technical assistance, preparation and adoption of planning documents, and process improvements to accelerate housing production and facilitate compliance to implement the sixth cycle of the regional housing needs assessment, pursuant to the terms of the NOFA, which includes associated forms, and this Agreement. By entering into this Agreement and thereby accepting the award of the Program funds, the Grantee agrees to comply with the terms and conditions of the NOFA, this Agreement, subsequent amendments to this agreement when necessary, the representations contained in the application and the requirements of the authority cited above. Based on the representations made by the Grantee, the State shall provide a grant in the amount shown in Exhibit B, Section 2.

**3. Definitions**

Terms herein shall have the same meaning as definitions in Section VIII of the LEAP NOFA.

**4. Scope of Work**

Preparation and adoption of planning documents and process improvements that accelerate housing production and facilitate compliance in implementing the sixth cycle of the regional housing needs assessment in accordance with the Grantee's Attachment 1: Project Timeline and Budget and

Local Early Bird Action Planning (LEAP)  
NOFA Date: January 27, 2020  
Approved Date: May 29, 2020 Prep.  
Date: February 26, 2021

Project Description as provided by the Grantee in the LEAP application used for subsequent approval by the Department.

**5. Department Contract Coordinator**

The Contract Coordinator of this Agreement for the Department is the Housing Policy Development Program Manager, or the Manager's designee. Unless otherwise informed, any

County of Butte  
20-LEAP-16000  
Page 2 of 2

**EXHIBIT A**

notice, report, or other communication required by this Agreement shall be mailed by first class mail to the Department Contract Coordinator at the following address:

Department of Housing and Community Development  
Housing Policy Development  
Attention: LEAP Program Manager  
2020 West El Camino Avenue, Suite 500  
Sacramento, CA 95833

**EXHIBIT B**

**BUDGET DETAIL AND PAYMENT PROVISIONS**

**1. Application for Funds**

- A. The Department is entering into this Standard Agreement ("Agreement") on the basis of, and in reliance on, facts, information, assertions and representations contained in the Application and any subsequent modifications or additions thereto approved by the Department. The Application and any approved modifications and additions thereto are hereby incorporated into this Agreement.
- B. The Grantee warrants that all information, facts, assertions and representations contained in the Application and approved modifications and additions thereto are true, correct, and complete to the best of the Grantee's knowledge. In the event that any part of the Application and any approved modification and addition thereto is untrue, incorrect, incomplete, or misleading in such a manner that would substantially affect the Department's approval, disbursement, or monitoring of the funding and the grant or activities governed by this Agreement, the Department may declare a breach hereof and take such action or pursue such remedies as are provided for breach.

**2. Grant and Reimbursement Limit**

The Department's decision to approve or deny an application or request for funding pursuant to the Program, and its determination of the amount of funding provided, shall be final. The maximum total amount granted and reimbursable to the Grantee pursuant to this Agreement shall not exceed \$300,000.00.

**3. Grant Timelines**

- A. This Agreement is effective upon the date of the Department representative's signature on page one of the fully executed Standard Agreement, STD 213, (the "Effective Date").
- B. All Grant funds must be expended by the Grantee on or before December 31, 2023. To ensure that the Grantee is reimbursed on or before December 31, 2023, the Grantee shall deliver to the Department all final invoices for reimbursement on or before September 30, 2023. Under special

**EXHIBIT B**

circumstances, as determined by the Department, the Department may modify the September 30, 2023 deadline.

It is the responsibility of the Grantee to monitor the project and timeliness of draws within the specified dates.

## EXHIBIT B

County of Butte  
20-LEAP-16000  
Page 2 of 5

### 4. Allowable Uses of Grant Funds

- A. The Department shall not disburse funds unless it determines that the grant funds shall be expended in compliance with the terms and provisions of the NOFA and this Agreement.
- B. Grant funds shall only be used by the Grantee for eligible activities pursuant to Section VII of the NOFA and only for activities that were approved by the Department, and as stated in Attachment 1: Project Timeline and Budget and Project Description in the Grantee's approved LEAP Application, , and/or any and all documentation incorporated into this Agreement and made a part thereof.
- C. Grant funds may not be used for administrative costs of persons employed by the Grantee for activities not directly related to the preparation and adoption of the proposed activity. The Grantee shall use no more than five percent of the total grant amount for costs related to administration of the project.
- D. A Grantee that receives funds under this Program may use a subcontractor. The subcontract shall provide for compliance with all the requirements of the Program. The subcontract shall not relieve the Grantee of its responsibilities under the Program.
- E. After the contract has been executed by the Department and all parties, approved and eligible costs for eligible activities may be reimbursed upon completion of deliverables in accordance with Attachment 1: Project Timeline and Budget and Project Description, and subject to the terms and conditions of this Agreement.
- F. Only approved and eligible costs incurred for work after the NOFA date, continued past the date of full execution of the Agreement, and completed during the grant term, will be reimbursable.
- G. Approved and eligible costs incurred prior to the NOFA date are ineligible and will not be reimbursed.

## EXHIBIT B

### 5. Performance

- A. The Grantee shall take such actions, pay such expenses, and do all things necessary to complete all activities as incorporated into the LEAP application and in accordance with the schedule for completion set forth in the Statement of Work, the Grantee's Project Description and Attachment 1: Project Timeline and Budget, and within the terms and conditions of this Agreement.
- B. The Department may monitor expenditures and activities of Grantee, as the department deems necessary, to ensure compliance with program requirements.



**EXHIBIT B**

- C. The Department may request repayment of funds from Grantee or pursue other remedies available to it by law for failure to comply with program requirements.

**6. Fiscal Administration**

- A. The Grantee is responsible for maintaining records which fully disclose the activities funded by the LEAP grant. Adequate documentation for each reimbursable transaction shall be maintained to permit the determination, through an audit if requested by the State, of the accuracy of the records and the allowability of expenditures charged to LEAP grant funds. If the allowability of expenditure cannot be determined because records or documentation are inadequate, the expenditure may be disallowed, and the State shall determine the reimbursement method for the amount disallowed. The State's determination of the allowability of any expense shall be final, absent fraud, mistake or arbitrariness.
- B. Work must be completed prior to requesting reimbursement. The Department may make exceptions to this provision on a case by case basis. In unusual circumstances, the Department may consider alternative arrangements to reimbursement and payment methods based on documentation demonstrating cost burdens, including the inability to pay for work.
- C. Prior to receiving reimbursement, the Grantee shall submit the following documentation:
  - 1) Government Agency Taxpayer ID Form (GovTIN; Fi\$cal form);
  - 2) A Request for Reimbursement form provided by the Department on the Department's Local Early Action Planning (LEAP) Grants webpage; and
  - 3) Any and all documentation requested by the Department in the Request for Reimbursement form and manner as outlined in the following subsection D.
- D. Grantee shall submit all required reimbursement documentation to the following address:

Department of Housing and Community Development  
Housing Policy Development  
Attention: LEAP Program Manager

**EXHIBIT B**

2020 West El Camino Avenue, Suite 500 Sacramento,  
CA 95833

- E. The Grantee shall submit invoices for reimbursement to the Department. All invoices shall be subject to the Department's approval and submitted in accordance with the following schedule:

Local Early Bird Action Planning (LEAP)  
NOFA Date: January 27, 2020  
Approved Date: May 29, 2020 Prep.  
Date: February 26, 2021

**EXHIBIT B**

County of Butte  
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Page 4 of 5

- 1) At maximum, once per quarter; or
- 2) Upon completion of a deliverable; and
- 3) At minimum, one invoice for reimbursement annually.

The Department will use the 2020 calendar year beginning from the date of the release of the NOFA on January 27, 2020 as the basis for scheduling reimbursements, with first requests for reimbursement accepted upon full execution of the Agreement by the Grantee and the Department.

F. The Request for Reimbursement must be for a minimum of fifteen percent (15%) of the maximum grant amount awarded. The Department may consider exceptions to the minimum amount requested on a case-by-case basis. All invoices shall reference the contract number and shall be signed and submitted to the Department's Program Manager at the address provided above in Section 6, Subsection D of this part. Invoices shall include at a minimum the following information:

- 1) Names of the Grantee's personnel performing work;
- 2) Dates and times of project work;
- 3) Itemized costs in accordance with Attachment 1: Project Timeline and Budget, and Project Description, including identification of each employee, contractor or subcontractor who provided services during the period of the invoice, the number of hours and hourly rates for each of the Grantee's employees, contractor(s), sub-recipient(s) or subcontractor's staff member(s), authorized expenses with receipts, and contractor, sub-recipient and subcontractor invoices; and
- 4) Any other documents, certifications, or evidence deemed necessary by the Department prior to disbursement of grant funds.

G. The Department will reimburse the Grantee directly for all allowable project costs as promptly as the Department's fiscal procedures permit upon receipt of an itemized signed invoice.

**EXHIBIT B**

- H. The Department recognizes that budgeted deliverable amounts are based upon estimates and conditions and circumstances may change. Grantees may request adjustments to Attachment 1: Project Timeline and Budget and Project Description in the Grantee's approved LEAP Application in writing (such as a budget adjustment across deliverables), as long as the total budget does not exceed the maximum amount awarded to the Grantee. All adjustments shall be subject to written approval by the Department.

**EXHIBIT B**

County of Butte  
20-LEAP-16000  
Page 5 of 5

- I. Grant funds shall not be disbursed until this Agreement has been fully executed.
- J. Grant fund payments will be made on a reimbursement basis; advance payments are not allowed. The Grantee, its subcontractors and all partners, must have adequate cash flow to pay all grantrelated expenses prior to requesting reimbursement from the Department. The Department may consider alternative arrangements for reimbursement and payment methods based on documentation demonstrating cost burdens, including the inability to pay for work.
- K. The Grantee will be responsible for compiling and submitting all invoices, supporting documentation and reporting documents. Invoices must be accompanied by reporting materials where appropriate. Invoices without the appropriate reporting materials will not be paid.
  - 1) Supporting documentation may include, but is not limited to; purchase orders, receipts, progress payments, subcontractor invoices, timecards, or any other documentation as deemed necessary and requested by the Department to support the reimbursement to the Grantee for expenditures incurred.
- L. The Grantee will submit for reimbursements to the Department based on actual costs incurred, and must bill the State based on clear and completed objectives and deliverables as outlined in the application, in Attachment 1: Project Timeline and Budget and the Project Description, and/or any and all documentation incorporated into this Agreement and made a part thereof.
- M. The Department may withhold ten percent (10%) of the grant until grant terms have been fulfilled to the satisfaction of the Department and the final close-out report submitted, no later than December 31, 2024 pursuant to Health and Safety Code section 50515.04(c)(2).
- N. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall immediately terminate and be of no further force and effect. In this event, the State and Contractor shall be relieved of any and all obligations under this Grant Agreement.
- O. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the sole discretion to cancel this Agreement without cause, no liability occurring to the State, or amend the current Grant Agreement and amount allocated to Contractor.

## EXHIBIT D

### LEAP TERMS AND CONDITIONS

#### 1. Reporting

- A. During the term of this Standard Agreement ("Agreement") the Grantee shall submit, upon request of the Department, a performance report that demonstrates satisfaction of all requirements identified in this Agreement.
- B. Pursuant to Health and Safety Code Section 50515.04, subsection (a), during the term of the Agreement, the Grantee shall submit an annual report containing all required information by April 1 of the year following receipt of the Grant funds. The annual reports shall be due from the Grantee until Program funds have been expended, but no later than February 28, 2023. A Grantee may, in lieu of providing a separate annual report as identified in Health and Safety Code Section 50515.04, subsection (a), provide the information as part of its Annual Progress Report.
- C. Upon completion of all deliverables required to fulfill this Agreement pursuant to the Grantee's Attachment 1: Project Timeline and Budget as approved in the LEAP Application, the Grantee shall submit a final close out report in accordance with the January 27, 2020 LEAP NOFA. The close out report shall be submitted with the final Request for Reimbursement by September 30, 2023, in accordance with the final invoices due pursuant to Exhibit B, Section 3.

#### 2. Accounting Records

- A. The Grantee, its staff, contractors and subcontractors shall establish and maintain an accounting system and reports that properly accumulate incurred project costs by line. The accounting system shall conform to Generally Accepted Accounting Principles (GMP), to enable the determination of incurred costs at interim points of completion and provide support for reimbursement payment vouchers or invoices.
- B. The Grantee must establish a separate ledger account for receipts and expenditures of grant funds and maintain expenditure details in accordance with the scope of work, project timeline and budget. Separate bank accounts are not required.

- C. The Grantee shall maintain documentation of its normal procurement policy and competitive bid process (including the use of sole source purchasing), and financial records of expenditures incurred during the course of the project in accordance with GMP.
- D. The Grantee agrees that the state or designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of the Agreement.
- E. Subcontractors employed by the Grantee and paid with moneys under the terms of this

## EXHIBIT D

Agreement shall be responsible for maintaining accounting records as specified above. Grantee shall monitor and enforce subcontracts accordingly.

### 3. Audits

- A. At any time during the term of this Agreement, the Department may perform or cause to be performed a financial audit of any and all phases of the award. At the Department's request, the Grantee shall provide, at its own expense, a financial audit prepared by a certified public accountant. The State of California has the right to review project documents and conduct audits during and over the project life.
- 1) The Grantee agrees that the Department or the Department's designee shall have the right to review, obtain, and copy all records and supporting documentation pertaining to performance of this Agreement.
  - 2) The Grantee agrees to provide the Department or the Department's designee, with any relevant information requested.
  - 3) The Grantee agrees to permit the Department or the Department's designee access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees who might reasonably have information related to such records and inspecting and copying such books, records, accounts, and other material that may be relevant to a matter under investigation for the purpose of determining compliance with statutes and this Agreement.
- B. If a financial audit is required by the Department, the audit shall be performed by an independent certified public accountant. Selection of an independent audit firm shall be consistent with procurement standards contained in Exhibit D, Section 8 subsection A. of this Agreement.
- 1) The Grantee shall notify the Department of the auditor's name and address immediately after the selection has been made. The contract for the audit shall allow access by the Department to the independent auditor's working papers.
  - 2) The Grantee is responsible for the completion of audits and all costs of preparing audits.
  - 3) If there are audit findings, the Grantee must submit a detailed response acceptable to the Department for each audit finding within ninety (90) days from the date of the audit finding report.



- C. The Grantee agrees to maintain such records for possible audit after final payment pursuant to Exhibit D, Section 3, subsection E. below, unless a longer period of records retention is stipulated.

**EXHIBIT D**

- 1) If any litigation, claim, negotiation, audit, monitoring, inspection or other action has been started before the expiration of the required record retention period, all records must be retained by the Grantee, contractors and sub-contractors until completion of the action and resolution of all issues which arise from it. The Grantee shall include in any contract that it enters into in an amount exceeding \$10,000.00, the Department's right to audit the contractor's records and interview their employees.
  - 2) The Grantee shall comply with the caveats and be aware of the penalties for violation of fraud and for obstruction of investigation as set forth in California Public Contracts Code Section 10115.10.
- D. The determination by the Department of the eligibility of any expenditure shall be final.
- E. The Grantee shall retain all books and records relevant to this Agreement for a minimum of three (3) years after the end of the term of this Agreement. Records relating to any and all audits or litigation relevant to this Agreement shall be retained for five (5) years after the conclusion or resolution of the matter.

**4. Remedies of Non-performance**

- A. The Department may monitor expenditures and activities of an applicant, as the Department deems necessary, to ensure compliance with Program requirements.
- B. The Department may, as it deems appropriate or necessary, request repayment of funds from an applicant, or pursue any remedies available to it by law for failure to comply with Program requirements.
- C. Any dispute concerning a question of fact arising under this Agreement that is not disposed of by agreement shall be decided by the Department's Housing Policy Development Manager, or the Manager's designee, who may consider any written or verbal evidence submitted by the Grantee. The decision of the Department's Housing Policy Development Manager or Designee shall be the Department's final decision regarding the dispute.
- D. Neither the pendency of a dispute nor its consideration by the Department will excuse the Grantee from full and timely performance in accordance with the terms of this Agreement.
- E. In the event that it is determined, at the sole discretion of the Department, that the Grantee is not meeting the terms and conditions of the Agreement, immediately upon receiving a written notice from the Department to stop work, the Grantee shall cease all work under the Agreement. The

Department has the sole discretion to determine that the Grantee meets the terms and conditions after a stop work order, and to deliver a written notice to the grantee to resume work under the Agreement.

## EXHIBIT D

- F. Both the Grantee and the Department have the right to terminate the Agreement at any time upon thirty (30) days written notice. The notice shall specify the reason for early termination and may permit the grantee or the Department to rectify any deficiency(ies) prior to the early termination date. The Grantee will submit any requested documents to the Department within thirty (30) days of the early termination notice.
- G. There must be a strong implementation component for the funded activity through this Program, including, where appropriate, agreement by the locality to formally adopt or complete the planning document. Localities that do not formally adopt or complete the funded activity could be subject to repayment of the grant.
- H. The following shall each constitute a breach of this Agreement:
- 1) Grantee's failure to comply with any of the terms and conditions of this Agreement.
  - 2) Use of, or permitting the use of, grant funds provided under this Agreement for any ineligible costs or for any activity not approved under this Agreement.
  - 3) Any failure to comply with the deadlines set forth in this Agreement unless approved by the Program Manager.
- I. In addition to any other remedies that may be available to the Department in law or equity for breach of this Agreement, the Department may at its discretion, exercise the following remedies:
- 1) Disqualify the Grantee from applying for future Department administered grant programs.
  - 2) Revoke existing LEAP award(s) to the Grantee.
  - 3) Require the return of unexpended LEAP funds disbursed under this Agreement.
  - 4) Require repayment of LEAP Funds disbursed and expended under this Agreement.
  - 5) Seek a court order for specific performance of the obligation defaulted upon, or the appointment of a receiver to complete the obligations in accordance with the LEAP Program requirements.

- 6) Other remedies available at law, or by and through this Agreement. All remedies available to the Department are cumulative and not exclusive.
- 7) The Department may give written notice to the Grantee to cure the breach or violation within a period of not less than fifteen (15) days.

## EXHIBIT D

### 5. Indemnification

Neither the Department nor any officer or employee thereof is responsible for any injury, damage or liability occurring by reason of anything done or omitted to be done by the Grantee, its officers, employees, agents, its contractors, its sub-recipients or its subcontractors under or in connection with any work, authority or jurisdiction conferred upon the Grantee under this Agreement. It is understood and agreed that the Grantee shall fully defend, indemnify and save harmless the Department and all of the Department's staff from all claims, suits or actions of every name, kind and description brought forth under, including, but not limited to, tortious, contractual, inverse condemnation or other theories or assertions of liability occurring by reason of anything done or omitted to be done by the Grantee, its officers, employees, agents contractors, sub-recipients, or subcontractors under this Agreement.

### 6. Waivers

No waiver of any breach of this Agreement shall be held to be a waiver of any prior or subsequent breach. The failure of the Department to enforce at any time the provisions of this Agreement, or to require at any time, performance by the Grantee of these provisions, shall in no way be construed to be a waiver of such provisions nor to affect the validity of this Agreement or the right of the Department to enforce these provisions.

### 7. Relationship of Parties

It is expressly understood that this Standard Agreement is an agreement executed by and between two independent governmental entities and is not intended to, and shall not be construed to, create the relationship of agent, servant, employee, partnership, joint venture or association, or any other relationship whatsoever other than that of an independent party.

### 8. Third-Party Contracts

- A. All state-government funded procurements must be conducted using a fair and competitive procurement process. The Grantee may use its own procurement procedures as long as the procedures comply with all City/County laws, rules and ordinances governing procurement, and all applicable provisions of California state law.

- B. Any contract entered into as a result of this Agreement shall contain all the provisions stipulated in the Agreement to be applicable to the Grantee's sub-recipients, contractors, and subcontractors. Copies of all agreements with sub-recipients, contractors, and subcontractors shall be submitted to the Department's program manager upon request.
- C. The Department does not have a contractual relationship with the Grantee's sub-recipients, contractors, or subcontractors, and the Grantee shall be fully responsible for all work performed by its sub-recipients, contractors, or subcontractors.

County of Butte  
20-LEAP-16000  
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#### EXHIBIT D

- D. In the event the Grantee is partnering with another jurisdiction or forming a collaborative effort between the Grantee and other jurisdictions who are grantees of the Local Early Action Planning Grants Program, the Grantee acknowledges that each partner and/or all entities forming the Local Early Action Planning Grants Program collaborative are in mutual written agreement with each other but are contractually bound to the Department under separate, enforceable contracts.
- E. In the event the Grantee is partnering with another jurisdiction or forming a collaborative effort with other entities that are not grantees of the Local Early Action Planning Grants Program, the Department shall defer to the provisions as noted in subsections 8(8) and 8(C) of this part.

#### 9. **Compliance with State and Federal Laws, Rules, and Regulations**

- A. The Grantee agrees to comply with all state and federal laws, rules and regulations that pertain to construction, health and safety, labor, fair employment practices, equal opportunity, and all other matters applicable to the grant, the Grantee, its contractors or subcontractors, and any other grant activity.
- B. During the performance of this Agreement, the Grantee assures that no otherwise qualified person shall be excluded from participation or employment, denied program benefits, or be subjected to discrimination based on race, color, ancestry, national origin, sex, gender, gender identity, gender expression, genetic information, age, disability, handicap, familial status, religion, or belief, under any program or activity funded by this contract, as required by Title VI of the Civil Rights Act of 1964, the Fair Housing Act (42 USC 3601-20) and all implementing regulations, and the Age Discrimination Act of 1975 and all implementing regulations.
- C. The Grantee shall include the nondiscrimination and compliance provisions of this clause in all agreements with its sub-recipients, contractors, and subcontractors, and shall include a requirement in all agreements with all of same that each of them in turn include the nondiscrimination and compliance provisions of this clause in all contracts and subcontracts they enter into to perform work under the Program.
- D. The Grantee shall, in the course of performing project work, fully comply with the applicable provisions of the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination on

Local Early Bird Action Planning (LEAP)  
NOFA Date: January 27, 2020  
Approved Date: May 29, 2020 Prep.  
Date: February 26, 2021

the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.)

- E. The Grantee shall adopt and implement affirmative processes and procedures that provide information, outreach and promotion of opportunities in the LEAP project to encourage participation of all persons regardless of race, color, national origin, sex, religion, familial status, or disability. This includes, but is not limited to, a minority outreach program to ensure the inclusion, to the maximum extent possible, of minorities and women, and entities owned by minorities and women, as required by 24 CFR 92.351.

County of Butte  
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Page 7 of 9

10. **Litigation**

- A. If any provision of this Agreement, or an underlying obligation, is held invalid by a court of competent jurisdiction, such invalidity, at the sole discretion of the Department, shall not affect any other provisions of this Agreement and the remainder of this Agreement shall remain in full force and effect. Therefore, the provisions of this Agreement are, and shall be, deemed severable.
- B. The Grantee shall notify the Department immediately of any claim or action undertaken by or against it, which affects or may affect this Agreement or the Department, and shall take such action with respect to the claim or action as is consistent with the terms of this Agreement and the interests of the Department.

11. **Changes in Terms/Amendments**

This Agreement may only be amended or modified by mutual written agreement of both parties.

12. **State-Owned Data**

- A. Definitions

- 1) Work:

The work to be directly or indirectly produced by the Grantee, its employees, or by and of the Grantee's contractor's, subcontractor's and/or sub-recipient's employees under this Agreement.

- 2) Work Product:

All deliverables created or produced from Work under this Agreement including, but not limited to, all Work and Deliverable conceived or made, or made hereafter conceived or



made, either solely or jointly with others during the term of this Agreement and during a period of six months after the termination thereof, which relates to the Work commissioned or performed under this Agreement. Work Product includes all deliverables, inventions, innovations, improvements, or other works of authorship Grantee and/or Grantee's contractor subcontractor and/or sub-recipient may conceive of or develop in the course of this Agreement, whether or not they are eligible for patent, copyright, trademark, trade secret or other legal protection.

3) Inventions:

Any ideas, methodologies, designs, concept, technique, invention, discovery, improvement or development regardless of patentability made solely by the Grantee or jointly with the Grantee's contractor, subcontractor and/or sub-recipient and/or Grantee's contractor, subcontractor, and/or sub-recipient's employees with one or more employees of the Department during the term of this Agreement and in performance of any Work

## EXHIBIT D

County of Butte  
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under this Agreement, provided that either the conception or reduction to practice thereof occurs during the term of this Agreement and in performance of Work issued under this Agreement.

### B. Ownership of Work Product and Rights

- 1) All work Product derived by the Work performed by the Grantee, its employees or by and of the Grantee's contractor's, subcontractor's and/or sub-recipient's employees under this Agreement, shall be owned by the Department and shall be considered to be works made for hire by the Grantee and the Grantee's contractor, subcontractor and/or subrecipient for the Department. The Department shall own all copyrights in the work product.
- 2) Grantee, its employees and all of Grantee's contractor's, subcontractor's and sub-recipient's employees agree to perpetually assign, and upon creation of each Work Product automatically assigns, to the Department, ownership of all United States and international copyrights in each and every Work Product, insofar as any such Work Product, by operation of law, may not be considered work made for hire by the Grantee's contractor, subcontractor and/or subrecipient from the Department. From time to time upon the Department's request, the Grantee's contractor, subcontractor and/or subrecipients, and/or its employees, shall confirm such assignments by execution and delivery of such assignment, confirmations or assignment or other written instruments as the Department may request. The Department shall have the right to obtain and hold in its name all copyright registrations and other evidence of rights that may be available for Work Product under this Agreement. Grantee hereby waives all rights relating to identification of authorship restriction or limitation on use or subsequent modification of the Work.
- 3) Grantee, its employees and all Grantee's contractors, subcontractors and sub- recipients hereby agrees to assign to the Department all Inventions, together with the right to seek protection by obtaining patent rights therefore and to claim all rights or priority thereunder and the same shall become and remain the Department's property regardless of whether such protection is sought. The Grantee, its employees and Grantee's contractor, subcontractor and /or subrecipient shall promptly make a complete written disclosure to the Department of each Invention not otherwise clearly disclosed to the Department in the pertinent Work Product, specifically noting features or concepts that the Grantee, its employees and/or Grantee's contractor, subcontractor and/or subrecipient believes to be new or different.

Local Early Bird Action Planning (LEAP)  
NOFA Date: January 27, 2020  
Approved Date: May 29, 2020 Prep.  
Date: February 26, 2021

## **EXHIBIT D**

- 4) Upon completion of all work under this Agreement, all intellectual property rights, ownership and title to all reports, documents, plans, specifications and estimates, produced as part of this Agreement will automatically be vested in Department and no further agreement will be necessary to transfer ownership to Department.

**EXHIBIT D**

County of Butte  
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**13. Special Conditions**

The State reserves the right to add any special conditions to this Agreement it deems necessary to assure that the policy and goals of the Program are achieved.

Local Early Bird Action Planning (LEAP)  
NOFA Date: January 27, 2020  
Approved Date: May 29, 2020  
Prep. Date: February 26, 2021

**Letter Agreement – Agreement between the County of Butte And Butte County Association of Governments (BCAG) for suballocation of Regional Early Action Planning (REAP) grant funds**



April 28, 2021

Butte County Department of Development Services  
7 County Center Drive  
Oroville, CA 95965

Re: Letter Agreement – Agreement between the County of Butte and Butte County Association of Governments (BCAG) for suballocation of Regional Early Action Planning (REAP) grant funds.

When signed by both parties, this letter constitutes a LETTER AGREEMENT between the Butte County Association of Governments (BCAG) and the County of Butte, regarding the suballocation of REAP funding from the California Department of Housing and Community Development (HCD).

1. Authority  
By motion adopted at its October 22, 2020 meeting, the BCAG Board authorized funding for the REAP program per Resolution #2020/21-05.
2. Conditions  
The County of Butte shall use the suballocated REAP funds for the completion of Las Plumas Area Gravity Sewer Interceptor Phase 2 in the southern Oroville area in association with Lake Oroville Area Public Utilities District (Project). Reimbursable tasks for this project shall be per the REAP grant application approved by HCD on January 26, 2021, and are identified in *Attachment #1*.
3. Payment  
BCAG will suballocate the REAP funding to the County of Butte for completion of the Project per the REAP grant application approved by HCD on January 26, 2021.

The County of Butte will submit regular (monthly or quarterly) invoices to BCAG using the invoice template provided separately (MS Excel file).

With each invoice submitted, please include cover letter describing work completed during invoice period, along with corresponding back up information, consultant invoices, receipts, etc. All work completed must be consistent with *Attachment #1* to be eligible for reimbursement. BCAG is not responsible for reimbursing expenses for which an invoice is not available.

BCAG shall process invoices for payment to the County of Butte within one week of receipt of invoice. Total reimbursable costs shall not exceed \$216,250 which is the amount identified in the REAP grant application approved by HCD on January 26, 2021, as identified in *Attachment #1*.

Please submit invoices via email to Chris Devine at BCAG at [cdevine@bcag.org](mailto:cdevine@bcag.org).

Please sign and date where indicated below, and return this Letter Agreement to BCAG. Once the Letter Agreement has been executed on behalf of BCAG, we will return a fully executed copy to you. If you have any questions please contact me at 530-809-4616

Sincerely,

Chris Devine  
Planning Manager

LETTER AGREEMENT PROVISIONS

The undersigned hereby agree to the provisions of this Letter Agreement as set forth hereinabove.

Butte County Association of Governments

5-17-21  
Date

By:   
Jon Clark  
Executive Director

Butte County

5/10/21  
Date

By:   
Paula M. Daneluk, AICP  
Development Services Director

## Attachment #1 – Reimbursable Expenses

Tasks and subtasks listed below are eligible for reimbursement per the REAP grant contract agreement.

Task	Estimated Cost	Begin Date	End Date	Deliverable
Suballocation of funds to Butte County for planning and design tasks for Las Plumas Area Gravity Sewer Interceptor Phase 2 in southern Oroville area in association with Lake Oroville Area Public Utilities District	Total: \$216,250	January 2021	July 2023	CEQA document; Easement/Right of Way acquisition; Topographical Survey; Pipeline design drawings and technical specifications
Subtask 2.1- CEQA Environmental Review	\$120,960	01-01-2021	11-30-2022	CEQA Document and
Subtask 2.2- Easement/Right of Way Acquisition	\$ 60,950	10-1-2022	1-31-2023	ROW Acquisition and
Subtask 2.3- Design Topographical Survey	\$ 13,330	2-1-2023	3-31-2023	Topographical Survey
Subtask 2.4- Project Design	\$ 21,010	4-1-2023	6-30-2023	Project Design (Plans and Specifications) and LOAPUD BOD Project Approval
Subtask 2.5- Project Closeout	\$ 0	7-1-2023	7-31-2023	Final Invoicing and Project





## Manager's Report

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 9 – Approval of the 2021 Sewer System Master Plan

In May of 2019 the District Board of Directors approved a proposal from Sauers Engineering to update the District's Sewer System Master Plan. The draft plan was presented to the Board at the August regular meeting for review and comment. Any changes requested or recommended have been made and the plan is now presented to the Board for approval and adoption.

**Attachment Included**

*Recommended Action:* Approve the 2021 Sewer System Master Plan.

**LAKE OROVILLE AREA  
PUBLIC UTILITY DISTRICT**

**SEWER SYSTEM  
MASTER PLAN**

**SEPTEMBER 14, 2021**



**SAUERS ENGINEERING, INC.**  
Civil and Environmental Engineers

# LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT

## SEWER SYSTEM MASTER PLAN - 2021

September 14, 2021

Board of Directors

Bill Sharman, President

Angela Mastelotto, Vice President    Dee G. Fairbanks, Director

Richard Salvucci, Director                Robert Marciniak, Director

Scott McCutcheon, General Manager

Approved by: \_\_\_\_\_ 2021

Scott McCutcheon  
General Manager

Date

SAUERS ENGINEERING, INC.  
105 Providence Mine Road, Suite 202  
Nevada City, California 95959  
Tel. 530-265-8021

# LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT SEWER SYSTEM MASTER PLAN - 2021

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**LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
SEWER SYSTEM MASTER PLAN - 2021**

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**LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
SEWER SYSTEM MASTER PLAN - 2021**

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**LAKE OROVILLE PUBLIC UTILITY DISTRICT  
SEWER SYSTEM MASTER PLAN - 2021**

**EXECUTIVE SUMMARY**

This report is an updated master plan for the wastewater collection system requirements for the Lake Oroville Area Public Utility District. It is based on the District’s billing records and mapping and on the County of Butte and City of Oroville General Plans. This study is to be used as a planning tool to assist in providing adequate wastewater collection capacity for the community being served by the District.

**Existing and Projected Wastewater Flows.** Average dry-weather and average wet-weather sewer flows in million gallons per day (mgd) are predicted based on current conditions and general plan buildout conditions.

2020			Buildout		
<u>ADWF</u>	<u>AWWF</u>	<u>PWWF</u>	<u>ADWF</u>	<u>AWWF</u>	<u>PWWF</u>
0.748	0.978	6.357	0.838	1.585	9.270

**Collection System.** The trunk lines of the sewer pipeline system were modeled using a computer. The flow conditions listed above plus an allowance for infiltration/inflow (I/I) were applied to the model. Pipes that were too small to convey present and future wastewater loads were upsized and categorized according to the year of needed improvement. Cost estimates were prepared for anticipated future pipeline construction. Pipeline replacement requirements and costs are listed in Table 5-2 in Chapter 5.

**Capital Improvement Program.** A summary of anticipated construction costs for sewer system improvements (including pipeline replacements and expansions) are tabulated below.

<u>Year of Expenditure</u>	<u>Cost (2020 dollars)</u>
2020	\$ 574,194
2020-Buildout	\$ 20,812,844

A more detailed listing of these figures is included in the Capital Improvement Program in Chapter 5, Tables 5-2, 5-3, 5-4 and 5-5.

## Chapter 1

### INTRODUCTION

#### BACKGROUND

The Lake Oroville Area Public Utility District (LOAPUD) provides sanitary sewer collection services for the unincorporated area east and south of the City of Oroville in Butte County, California. The District's boundary encompasses approximately 8,457 acres (13.2 square miles) ranging in elevation between approximately 200 feet and 1,000 feet above sea level. A vicinity map for LOAPUD is shown in Figure 1.

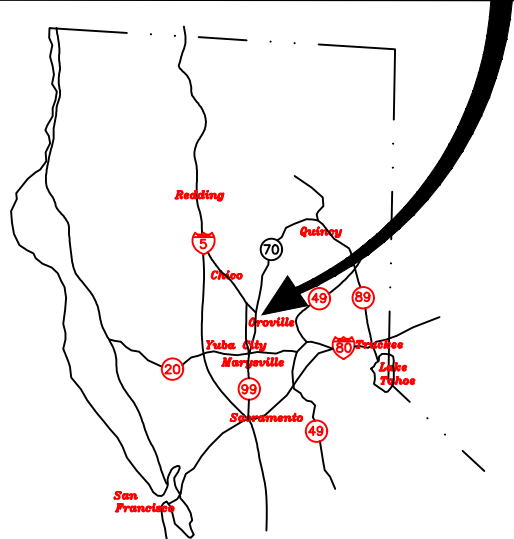
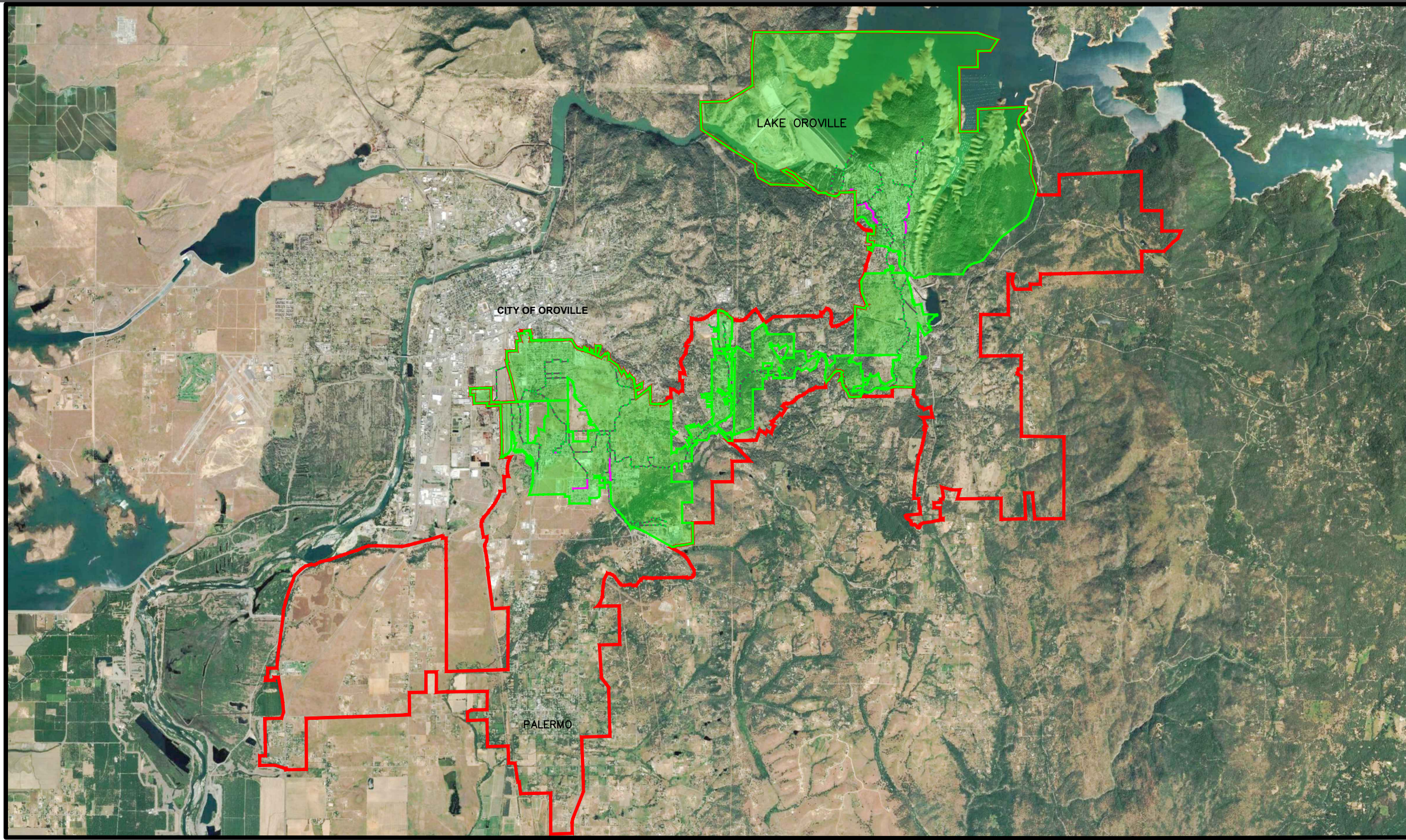
The District provides service connections to approximately 5,733 customers. Customers include single and multiple family residences, a variety of commercial uses, and public facilities including schools and recreational facilities associated with nearby Lake Oroville. For purposes of record keeping and billing, the District converts non-residential customers to equivalent dwelling units (EDUs). This adjusts larger wastewater customers to the equivalent number of residential customers which generate the same quantity of wastewater. The District currently serves 6,160 EDUs according to District records.

The District, formerly known as the North Burbank Public Utility District, was formed in 1938. Until 1977, the District owned and operated a wastewater treatment plant providing treatment and disposal services in addition to collection. Treatment and disposal are now provided at a regional plant operated by the Sewerage Commission - Oroville Region (SC-OR). SC-OR is operated as a Joint Powers Agency which includes LOAPUD along with Thermolito Water and Sewer District (TWSD) and the City of Oroville.

The District is located primarily in unincorporated Butte County, with some portions located within the city limits of the City of Oroville. For the unincorporated areas, land uses are governed by the Butte County General Plan 2030 adopted 2010. The County's General Plan contains policies related to community growth and development which encourage new, orderly development while offering a full range of municipal services. It also includes policies on the annexation of contiguous areas outside the existing boundaries of municipal service providers. The Local Agency Formation Commission (LAFCo) and State law require the District to adopt a Sphere of Influence giving the District responsibility in these adjacent unincorporated areas. For areas within the Oroville city limits, land uses are governed by the City of Oroville 2030 General Plan adopted in 2009. The majority of the LOAPUD service area within the city limits is the Southside area, long served by LOAPUD but recently annexed for services other than sewer by the City of Oroville. Other undeveloped areas within the city limits potentially served by LOAPUD are mostly infill.

Maps created as part of the respective General Plans provide a basis for the ultimate development of the District's service area. Ultimate development is based on the land use and zoning designations, densities, and areas of each of zoning district. It is estimated that the District is currently at approximately 53% of projected buildout within its current service area.





**Legend**

- Existing Service Area
- Existing Sphere of Influence
- Parcel Boundary

Designed: KEM  
 Drawn: KEM  
 Date: JULY 2021  
 Scale: N.T.S.

**Sauers Engineering, Inc.**  
 Civil & Environmental Engineers  
 105 Providence Mine Rd., Suite 202, Nevada City, CA 95959  
 tel (530) 265-8021 www.sauerseng.com

**LAKE OROVILLE PUBLIC UTILITY DISTRICT**  
 Butte  
 1960 ELGIN STREET  
 OROVILLE, CA 95966  
 TEL. (530) 533-2000  
 California

Sewer System  
 Masterplan 2021  
 Figure 1  
 Vicinity Map

## **TREATMENT AND DISPOSAL**

Since 1977, treatment and disposal of the wastewater conveyed through the District's collection system have been provided by the Sewerage Commission - Oroville Region (SC-OR) regional treatment plant located west of the District's service area. The SC-OR plant is operated through a Joint Powers Agreement (JPA) which also involves the City of Oroville and the Thermalito Water and Sewer District (TWSD). The plant is rated for an average dry-weather flow of 6.5 million gallons per day with current average dry-weather flows of 2.63 million gallons per day. According to SC-OR, the plant has a current capacity capable of serving 2,300 new homes. The unused capacity of the plant is available to the JPA members under a first come, first served policy.

## **SEWER SYSTEM MASTER PLAN**

The Sewer System Master Plan is an evaluation of the District's wastewater collection system. The system is evaluated in terms of its ability to adequately convey current flows and, by estimating the future growth of the District's service area, in terms of its ability to accommodate additional future flows. The study also identifies new collection system facilities which will be needed to allow the system to expand into new service territory.

Chapter 2 contains information on the existing and projected future wastewater flows for the District. Included are current flow projections, wastewater generation factors, and projections of future additional flows.

A description of the existing collection system is included in Chapter 3. This chapter presents an inventory of existing pipelines and lift stations, a discussion of infiltration/inflow and its effects on the system, and a discussion of the District's pipeline replacement history.

The actual sewer system master plan, including results of a computer analysis of the system, is presented in Chapter 4. Chapter 4 includes discussions on current and future wastewater flow quantities, pipeline capacities and sizing, and, based on the results of the computer analysis, a list of the pipelines in need of replacement along with their estimated costs. This chapter also includes new collection system facilities needed to meet the anticipated expansion of the system along with cost estimates.

Chapter 5 is a recommended plan and capital improvement program for the replacement of existing facilities and construction of new facilities. It provides cost estimates and the estimated time when the improvements will be needed.

Appendix A contains a discussion of the computer model analysis and Appendix B contains the computer printouts showing the results of the computer modeling.

## **AUTHORS AND CREDITS**

Sauers Engineering, Inc. of Nevada City provided overall project coordination and was directly responsible for the preparation of the master plan. Key personnel included Keith Knibb, RCE 51290, Dean Marsh, RCE 58100, and Kirk Moberg, EIT.

Thanks go out to the members of the Lake Oroville Area Public Utility District staff who participated in the master planning process. The valuable information and assistance provided by District staff made this study possible. Staff members who contributed valuable assistance and information during the preparation of the master plan include Scott McCutcheon, General Manager; Dan Sanders, Field Operations Supervisor, Darin Kahalekulu, Office Clerk.

## Chapter 2

### EXISTING AND PROJECTED WASTEWATER FLOWS

This chapter of the master plan report describes the methods used to evaluate current and future wastewater generation rates, population development trends, and average wastewater flow rates.

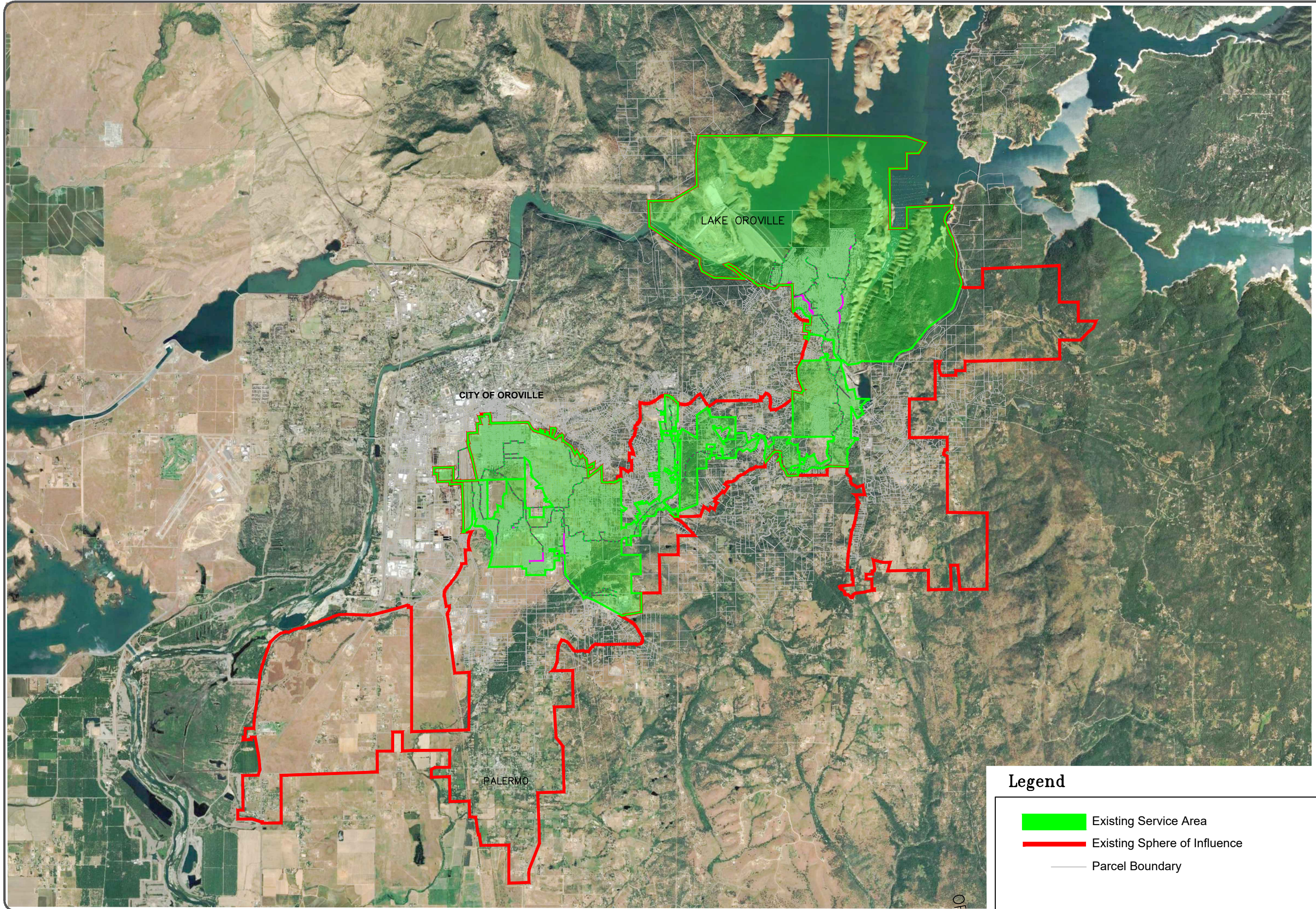
#### BACKGROUND

In 2013, an updated Sphere of Influence Plan for LOAPUD was adopted by the Butte Local Agency Formation Commission (LAFCO). A Sphere of Influence is a long-range planning tool that analyzes the physical boundary of a local agency or jurisdiction, and the present and probable need for services within that area. The sphere indicates the logical area in which the District anticipates services will be utilized. The Study Area for this Master Plan will include all of the territory within the existing service area boundaries along with the territory outside of the service area and within the Sphere of Influence boundaries. The Master Plan Study Area is shown on Figure 2.

Existing wastewater flows as measured at the SC-OR meter and land uses for areas currently being served by the District are the basis for predicting the current wastewater generation factors. District maps and billing records indicate the type of service (residential, commercial, public, etc.) for each customer and the total number of EDUs. Projections for future development within the study area are based on the Butte County General Plan 2030 for areas outside of the City of Oroville and the City of Oroville 2030 General Plan for areas within the City. The general plans include zoning and land use designation maps and descriptions used to determine the character and density of future development in the study area. Local conditions such as topography, water courses, and other environmental constraints were also taken into account in determining areas of land not likely to be developed. In some cases, where more specific information was available on proposed projects, that information was used in lieu of general plan designations.

#### WASTEWATER FLOW BASE INFORMATION

To accurately model the distribution of development and corresponding flows, the District's sewer service area was divided into drainage subareas, or collection zones. The collection zones were based on the District's sewer system maps and on topographic maps for areas not currently served. The collection zones represent areas which contribute flows through smaller collection system branches to a common point on one of the systems primary interceptor lines or sewer lift stations. Collection zone identification numbers refer to the District manhole number on the interceptor line which receives sewage from the collection zone. The map of the current collection zones is shown on Figure 3. Land use projections for each of the collection zones including existing EDU's, future projected EDU's, and future commercial areas within the current service boundary are also shown on Figure 3.



**Legend**

- Existing Service Area
- Existing Sphere of Influence
- Parcel Boundary

Designed: KEM  
 Drawn: KEM  
 Date: JULY 2021  
 Scale: N.T.S.

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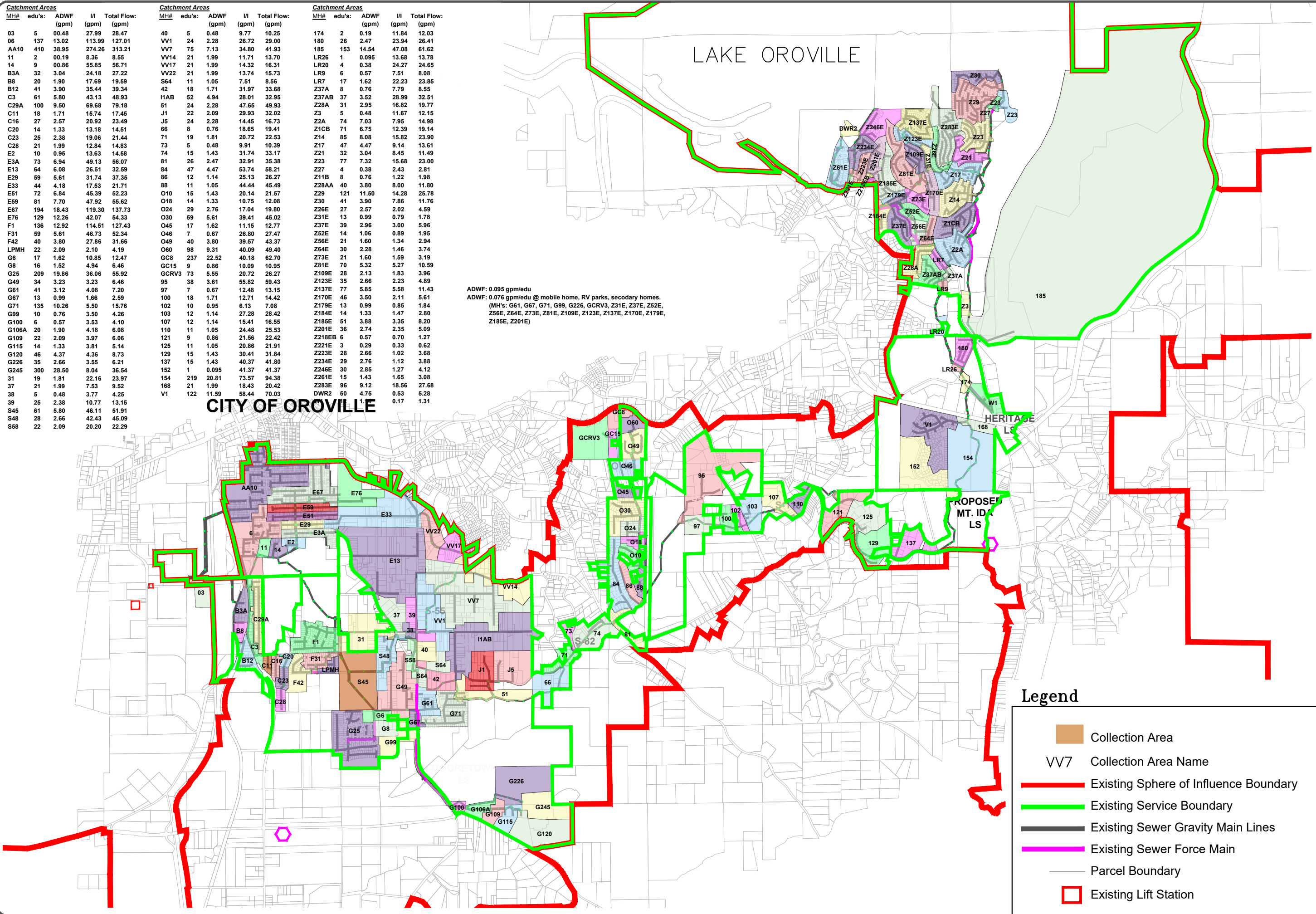
Sewer System  
 Masterplan 2021  
 Figure 2  
 Master Plan Study Area

Catchment Areas				
MH#	edu's:	ADWF (gpm)	I/I (gpm)	Total Flow: (gpm)
03	5	00.48	27.99	28.47
06	137	13.02	113.99	127.01
AA10	410	38.95	274.26	313.21
11	2	00.19	8.36	8.55
14	9	00.86	55.85	56.71
B3A	32	3.04	24.18	27.22
B8	20	1.90	17.69	19.59
B12	41	3.90	35.44	39.34
C3	61	5.80	43.13	48.93
C29A	100	9.50	69.68	79.18
C11	18	1.71	15.74	17.45
C16	27	2.57	20.92	23.49
C20	14	1.33	13.18	14.51
C23	25	2.38	19.06	21.44
C28	21	1.99	12.84	14.83
E2	10	0.95	13.63	14.58
E3A	73	6.94	49.13	56.07
E13	64	6.08	26.51	32.59
E29	59	5.61	31.74	37.35
E33	44	4.18	17.53	21.71
E51	72	6.84	45.39	52.23
E59	81	7.70	47.92	55.62
E67	194	18.43	119.30	137.73
E76	129	12.26	42.07	54.33
F1	136	12.92	114.51	127.43
F31	59	5.61	46.73	52.34
F42	40	3.80	27.86	31.66
LPMH	22	2.09	2.10	4.19
G6	17	1.62	10.85	12.47
G8	16	1.52	4.94	6.46
G25	209	19.86	36.06	55.92
G49	34	3.23	3.23	6.46
G61	41	3.12	4.08	7.20
G67	13	0.99	1.66	2.59
G71	135	10.26	5.50	15.76
G99	10	0.76	3.50	4.26
G100	6	0.57	3.53	4.10
G106A	20	1.90	4.18	6.08
G109	22	2.09	3.97	6.06
G115	14	1.33	3.81	5.14
G120	46	4.37	4.36	8.73
G226	35	2.66	3.55	6.21
G245	300	28.50	8.04	36.54
31	19	1.81	22.16	23.97
37	21	1.99	7.53	9.52
38	5	0.48	3.77	4.25
39	25	2.38	10.77	13.15
S45	61	5.80	46.11	51.91
S48	28	2.66	42.43	45.09
S58	22	2.09	20.20	22.29

Catchment Areas				
MH#	edu's:	ADWF (gpm)	I/I (gpm)	Total Flow: (gpm)
40	5	0.48	9.77	10.25
VV1	24	2.28	26.72	29.00
VV7	75	7.13	34.80	41.93
VV14	21	1.99	11.71	13.70
VV17	21	1.99	14.32	16.31
VV22	21	1.99	13.74	15.73
S64	11	1.05	7.51	8.56
42	18	1.71	31.97	33.68
I1AB	52	4.94	28.01	32.95
51	24	2.28	47.65	49.93
J1	22	2.09	29.93	32.02
J5	24	2.28	14.45	16.73
66	8	0.76	18.65	19.41
71	19	1.81	20.72	22.53
73	5	0.48	9.91	10.39
74	15	1.43	31.74	33.17
81	26	2.47	32.91	35.38
84	47	4.47	53.74	58.21
86	12	1.14	25.13	26.27
88	11	1.05	44.44	45.49
O10	15	1.43	20.14	21.57
O18	14	1.33	10.75	12.08
O24	29	2.76	17.04	19.80
O30	59	5.61	39.41	45.02
O45	17	1.62	11.15	12.77
O46	7	0.67	26.80	27.47
O49	40	3.80	39.57	43.37
O60	98	9.31	40.09	49.40
GCR3	237	22.52	40.18	62.70
GC15	9	0.86	10.09	10.95
GCRV3	73	5.55	20.72	26.27
95	38	3.61	55.82	59.43
97	7	0.67	12.48	13.15
100	18	1.71	12.71	14.42
102	10	0.95	6.13	7.08
103	12	1.14	27.28	28.42
107	12	1.14	15.41	16.55
110	11	1.05	24.48	25.53
121	9	0.86	21.56	22.42
125	11	1.05	20.86	21.91
129	15	1.43	30.41	31.84
137	15	1.43	40.37	41.80
152	1	0.095	41.37	41.37
154	219	20.81	73.57	94.38
168	21	1.99	18.43	20.42
V1	122	11.59	58.44	70.03

Catchment Areas				
MH#	edu's:	ADWF (gpm)	I/I (gpm)	Total Flow: (gpm)
174	2	0.19	11.84	12.03
180	26	2.47	23.94	26.41
185	153	14.54	47.08	61.62
LR26	1	0.095	13.68	13.78
LR20	4	0.38	24.27	24.65
LR9	6	0.57	7.51	8.08
LR7	17	1.62	22.23	23.85
Z37A	8	0.76	7.79	8.55
Z37AB	37	3.52	28.99	32.51
Z28A	31	2.95	16.82	19.77
Z3	5	0.48	11.67	12.15
Z2A	74	7.03	7.95	14.98
Z1CB	71	6.75	12.39	19.14
Z14	85	8.08	15.82	23.90
Z17	47	4.47	9.14	13.61
Z21	32	3.04	8.45	11.49
Z23	77	7.32	15.68	23.00
Z27	4	0.38	2.43	2.81
Z11B	8	0.76	1.22	1.98
Z28AA	40	3.80	8.00	11.80
Z29	121	11.50	14.28	25.78
Z30	41	3.90	7.86	11.76
Z26E	27	2.57	2.02	4.59
Z31E	13	0.99	0.79	1.78
Z37E	39	2.96	3.00	5.96
Z52E	14	1.06	0.89	1.95
Z64E	21	1.60	1.34	2.94
Z64E	30	2.28	1.46	3.74
Z73E	21	1.60	1.59	3.19
Z81E	70	5.32	5.27	10.59
Z109E	28	2.13	1.83	3.96
Z123E	35	2.66	2.23	4.89
Z137E	77	5.85	5.58	11.43
Z170E	46	3.50	2.11	5.61
Z179E	13	0.99	0.85	1.84
Z184E	14	1.33	1.47	2.80
Z185E	51	3.88	3.35	8.20
Z201E	36	2.74	2.35	5.09
Z218EB	6	0.57	0.70	1.27
Z221E	3	0.29	0.33	0.62
Z233E	28	2.66	1.02	3.68
Z234E	29	2.76	1.12	3.88
Z246E	30	2.85	1.27	4.12
Z261E	15	1.43	1.65	3.08
Z283E	96	9.12	18.56	27.68
DWR2	50	4.75	0.53	5.28
1	1	0.17	0.17	1.31

ADWF: 0.095 gpm/edu  
 ADWF: 0.076 gpm/edu @ mobile home, RV parks, secondary homes.  
 (MH's: G61, G67, G71, G99, G226, GCRV3, Z31E, Z37E, Z52E, Z56E, Z64E, Z73E, Z81E, Z109E, Z123E, Z137E, Z170E, Z179E, Z185E, Z201E)



### Legend

- Collection Area
- VV7 Collection Area Name
- Existing Sphere of Influence Boundary
- Existing Service Boundary
- Existing Sewer Gravity Main Lines
- Existing Sewer Force Main
- Parcel Boundary
- Existing Lift Station

Sewer services were distributed within the collection zones based on the District’s billing records and maps showing the parcels being served. Existing commercial services were converted to equivalent dwelling units (EDU’s) for use in flow projections. The total EDU count for the District is 6,160. The existing flow projections were calculated using the SC-OR metering records for District flow to the treatment plant. In addition, some collection zone flow projections were calculated using District flow meter records and sewer lift station records.

Flow generation factors were based on the number of equivalent dwelling units being served by the District and the total flow as recorded at the SC-OR meter. Flows were averaged over the last five years for average dry-weather flow (ADWF). Wet weather flows were also estimated based on peak flows recorded at the SC-OR meter and flow measurements taken at District lift stations. Increased flow due to wet weather conditions was distributed as infiltration/inflow (I/I) to the various collection zones based on the age, condition, and known deficiencies of each collection zone system.

To determine the ADWF from the LOAPUD collection system, flows to the SC-OR Plant between 2015 and 2019 during the dry weather periods between May and October were averaged and are listed in Table 2-1.

**Table 2-1**  
Average Dry Weather Flows  
From LOAPUD to SC-OR Plant

	<i>Average Dry Weather Flow, million gallons per day (mgd)</i>					
<i>Month</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>Average</i>
May	0.754	0.775	0.791	0.791	0.867	0.796
June	0.693	0.725	0.758	0.754	0.769	0.740
July	0.690	0.706	0.731	0.729	0.708	0.713
August	0.705	0.729	0.741	0.734	0.740	0.730
September	0.714	0.751	0.751	0.755		0.743
October	0.730	0.789	0.751	0.789		0.765
Average Dry Weather Flow (mgd)						0.748

Using the total EDU count within the District of 6,160, the average dry weather daily flow per EDU is 121 gpd/EDU (748,000 gpd/6,160 EDU). In the previous Master Plan, the waste generation factor was calculated to be 141 gpd/EDU. This difference may be attributed to a number of factors including:

- The District's continued aggressive I/I program which has continued to reduce I/I flows into the system, including dry weather I/I.
- Changes to the Uniform Plumbing Code which require low-flow fixtures.
- Customer habits with respect to water conservation in light of more frequent drought conditions.
- The District's Lateral Inspection and Replacement Program which reduces I/I from customer owned plumbing systems.

Applying a factor of safety of 1.5 to the 121 gpd/EDU derived above results in a District standard wastewater generation factor of 190 gpd/EDU. The wastewater generation factors (average dry-weather flow) used to develop flows for the current year 2020 condition and for future flow projections are as follows:

Residential:	190 gallons per day/Equivalent Dwelling Unit
Commercial/Industrial:	600 gallons per day/gross acre
Public Lands:	Case by case projection

The estimated distribution of current wastewater flows for each collection zone is shown on Figure 3. The year 2020 flow projections using the above generation factors for the ADWF are shown in Table 2-2. The AWWF shown in Table 2-2 is the actual wet weather flows metered at the SC-OR Plant as discussed and shown later in Table 4-1. The PWWF shown in Table 2-2 is based on a peaking factor of 6.5.

**Table 2-2**

**YEAR 2020 FLOW PROJECTIONS**

ADWF (mgd)	AWWF (mgd)	Peak WWF (mgd)
0.748	0.978	6.357

**FUTURE WASTEWATER FLOW PROJECTIONS**

The Butte County general plan gives information on the potential ultimate development of the study area based on the land use and zoning designations. This ultimate, or buildout, condition can be derived from the general plan densities and the area of land in each zoning district. This does not, however, give any indication as to when the buildout condition will be realized. The rate of development in the District in recent years has been relatively steady at approximately 1% growth per year. The Center for Economic Development at CSU Chico publication, Butte County Economic and Demographic Profile 2018, shows an approximate growth rate in the Oroville area of approximately 1% since 1990. This Master Plan will continue to use a 1% growth rate for projections through buildout.



Figure 4 presents a map of areas between the District's current service boundary and SOI that could be serviced in the future. It shows the projected buildout flows from these areas and what manhole these flows would enter the main interceptor line. Table 2-3 shows the current flows from each of the collection zones along with projected future flows through buildout.

#### DEVELOPMENT AREAS OF INTEREST

There are areas that include both residential and commercial zoning designations, that, based on recent planning and development activities, may have greater growth potential within the study area. Some areas of interest that have the potential for being a part of the future LOAPUD Service Area include:

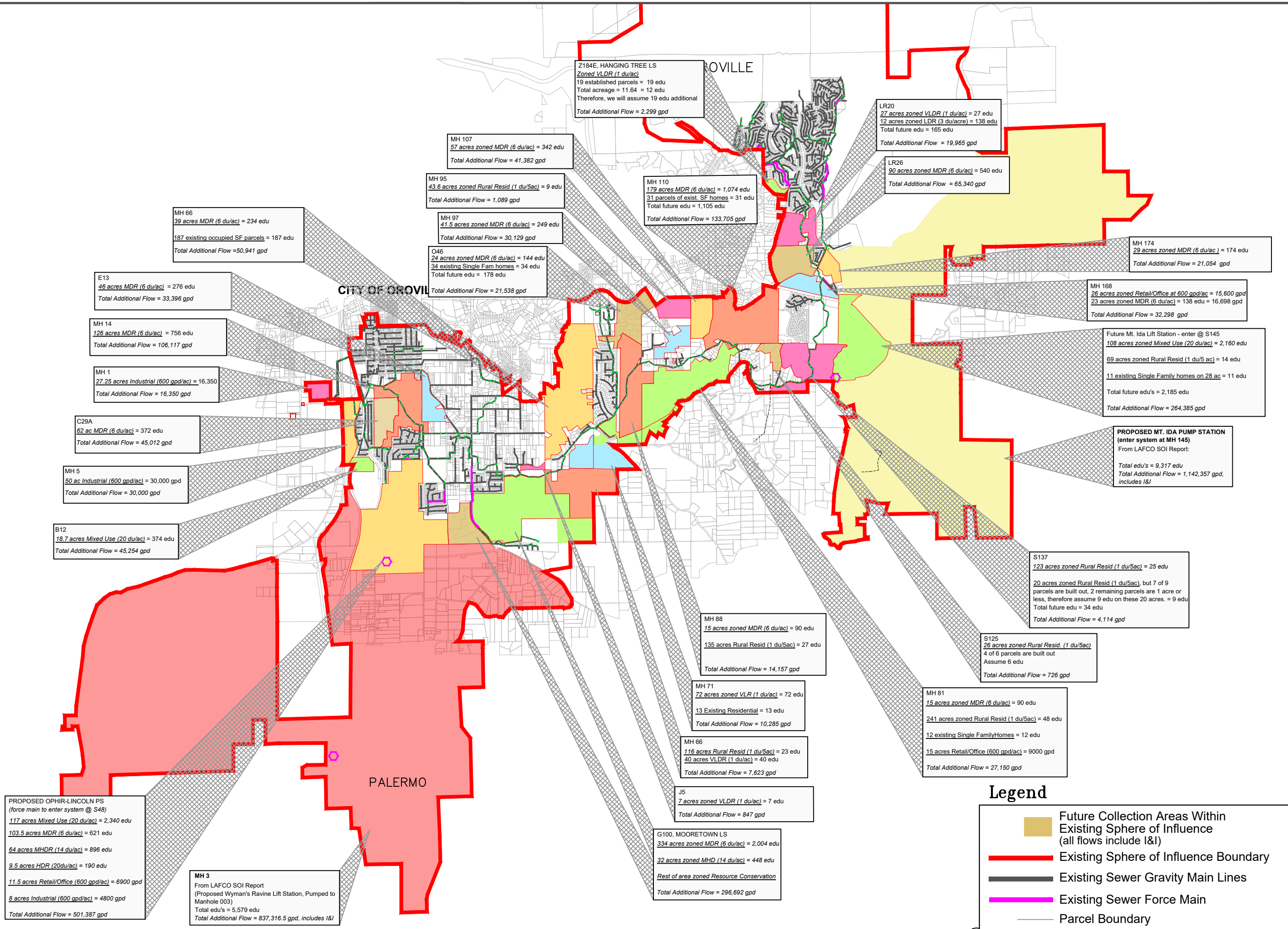
- ▶ Ophir/Las Plumas
- ▶ Rio D'Oro
- ▶ Stringtown/Whisper Ridge

The Ophir/Las Plumas development area is located south of the City of Oroville and north of the town of Palermo. Baggett Marysville Road borders the west side, Lower Wyandotte Road borders the east, and Ithaca Street borders the north. The total Las Plumas Study Area consists of approximately 2,247 acres with approximately 385 acres projected for development. The projected development would consist of 1,899 dwelling units and 11.5 acres of commercially zoned space. The Ophir/Las Plumas development area encompasses land that is inside the existing LOAPUD service area boundary and also land that is between the service area boundary and the Sphere of Influence boundary. It is proposed that flows generated in the Ophir/Las Plumas development area would flow to the proposed Ophir-Lincoln Lift Station near the intersection of Ophir Road and Lincoln Boulevard.

The Rio D'Oro development is located along Highway 70 south of Oroville and includes 685 acres with proposed land uses of residential, commercial, public facility, park and open space, and environmental conservation. Approximately 2,730 residential units and 30 acres of commercial use are planned. Although development efforts appear to have stalled in recent years, this is still considered an active project. The wastewater from Rio D'Oro would be piped to the new proposed Wyman's Ravine Lift Station to be located west of Palermo.

The Stringtown/Whisper Ridge development area is located at the furthest northeast portion of the District's Sphere of Influence. Uses include residential, commercial, and a golf course resort. Specific Plans for this area have been approved by Butte County and preliminary discussions between developers and the District have been had with respect to providing sewer service. Wastewater from this area is anticipated to flow to the proposed future Mt. Ida Lift Station planned for Mt Ida Road near Miners Ranch Road.

Even as the District's service area approaches buildout, it is unlikely that the entire population within the ultimate sphere of influence would be served by a public wastewater collection and treatment system due to limitations in plant capacity, the cost of extending the collection



system, topographical constraints on the collection system itself, and low population densities in some of the outlying areas. Some of the areas in the sphere of influence will continue to be served by septic systems and not pursue annexation unless there are strong incentives for annexation such as a significant number of septic system failures which present health and safety concerns.

For the purpose of this master plan, flow projections within the current service boundary were developed for buildout with a growth rate at 1%. These projections, presented in Table 2-3, were generated by estimating the distribution of new households anticipated in the general plan along with new commercial and industrial development within the individual master plan collection zones. The flow projections attempt to recognize projects in progress and any other known information.

**Table 2-3**

**FUTURE TOTAL FLOW PROJECTIONS**

Current (2020)			Buildout		
Total ADWF (mgd)	Total AWWF (mgd)	Total PWWF (mgd)	Additional ADWF (mgd)	Total ADWF (mgd)	Total PWWF (mgd)
0.747	0.978	5.467	0.838	1.585	9.270

Table 2-4 breaks down the ADWF flow projections for each collection zone within the current service boundary and the sphere of influence boundary. These tables show the projected flows for the year of analysis and also projects when buildout will occur to reach the projected buildout flow. This is based on a 1% growth rate.

**Table 2-4  
Current Flows & Flow Projections to Buildout at 1% Growth Rate**

MH Collection Zone	Current EDU Count	ADWF (gpm)	I/I (gpm)	Total 2021 Flows (gpm)	Additional Buildout Flow (gpd)	Additional Buildout Flow (gpm)	Total Flow @ Buildout (gpm)	Years to reach buildout @ 1% growth	Year Buildout Would Occur
1	0	0	0	0.00	16,350	11.35	11.36	938.40	2959
3	5	0.48	27.99	28.47	837,317	581.47	609.94	307.98	2329
5	0	0	0	0.00	30,000	20.83	20.83	999.40	3020
6	137	13.02	113.99	127.01			127.01		
AA10	410	38.95	274.26	313.21			313.21		
11	2	0.19	8.36	8.55			8.55		
14	9	0.86	55.85	56.71	106,117	73.69	130.40	83.68	2105
B3A	32	3.04	24.18	27.22			27.22		
B8	20	1.9	17.69	19.59			19.59		
B12	41	3.9	35.44	39.34	45,254	31.43	70.77	59.01	2080
C3	61	5.8	43.13	48.93			48.93		
C29A	100	9.5	69.68	79.18	45,012	31.26	110.44	33.44	2054
C11	18	1.71	15.74	17.45			17.45		
C16	27	2.57	20.92	23.49			23.49		
C20	14	1.33	13.18	14.51			14.51		
C23	25	2.38	19.06	21.44			21.44		
C28	21	1.99	12.84	14.83			14.83		
E2	10	0.95	13.63	14.58			14.58		
E3A	73	6.94	49.13	56.07			56.07		
E13	64	6.08	26.51	32.59	33,396	23.19	55.78	54.01	2075
E29	59	5.61	31.74	37.35			37.35		
E33	44	4.18	17.53	21.71			21.71		
E51	72	6.84	45.39	52.23			52.23		
E59	81	7.7	47.92	55.62			55.62		
E67	194	18.43	119.3	137.73			137.73		
E76	129	12.26	42.07	54.33			54.33		
F1	136	12.92	114.51	127.43			127.43		
F31	59	5.61	46.73	52.34			52.34		
F42	40	3.8	27.86	31.66			31.66		
LPMH	22	2.09	2.1	4.19			4.19		
G6	17	1.62	10.85	12.47			12.47		
G8	16	1.52	4.94	6.46			6.46		
G25	209	19.86	36.06	55.92			55.92		
G49	34	3.23	3.23	6.46			6.46		
G61	41	3.12	4.08	7.2			7.2		
G67	13	0.99	1.66	2.59			2.59		
G71	135	10.26	5.5	15.76			15.76		
G99	10	0.76	3.5	4.26			4.26		
G100	6	0.57	3.53	4.1	296,692	206.04	210.14	395.64	2417
G106A	20	1.9	4.18	6.08			6.08		

**Table 2-4, continued**  
**Current Flows & Flow Projections to Buildout at 1% Growth Rate**

<u>MH Collection Zone</u>	Current EDU Count	ADWF (gpm)	I/I (gpm)	Total 2021 Flows (gpm)	Additional Buildout Flow (gpd)	Additional Buildout Flow (gpm)	Total Flow @ Buildout (gpm)	Years to reach buildout @ 1% growth	Year Buildout Would Occur
G109	22	2.09	3.97	6.06			6.06		
G115	14	1.33	3.81	5.14			5.14		
G120	46	4.37	4.36	8.73			8.73		
G226	35	2.66	3.55	6.21			6.21		
G245	300	28.5	8.04	36.54			36.54		
31	19	1.81	22.16	23.97			23.97		
37	21	1.99	7.53	9.52			9.52		
38	5	0.48	3.77	4.25			4.25		
39	25	2.38	10.77	13.15			13.15		
S45	61	5.8	46.11	51.91			51.91		
S48	28	2.66	42.43	45.09	501,387	348.19	393.28	217.67	2239
S58	22	2.09	20.2	22.29			22.29		
40	5	0.48	9.77	10.25			10.25		
VV1	24	2.28	26.72	29			29.00		
VV7	75	7.13	34.8	41.93			41.93		
VV14	21	1.99	11.71	13.7			13.70		
VV17	21	1.99	14.32	16.31			16.31		
VV22	21	1.99	13.74	15.73			15.73		
S64	11	1.05	7.51	8.56			8.56		
42	18	1.71	31.97	33.68			33.68		
I1AB	52	4.94	28.01	32.95			32.95		
51	24	2.28	47.65	49.93			49.93		
J1	22	2.09	29.93	32.02			32.02		
J5	24	2.28	14.45	16.73	847	0.59	17.32	3.47	2024
66	8	0.76	18.65	19.41	58,564	40.67	60.08	113.55	2135
71	19	1.81	20.72	22.53	10,285	7.14	29.67	27.67	2049
73	5	0.48	9.91	10.39			10.39		
74	15	1.43	31.74	33.17			33.17		
81	26	2.47	32.91	35.38	27,150	18.85	54.23	42.93	2064
84	47	4.47	53.74	58.21			58.21		
86	12	1.14	25.13	26.27			26.27		
88	11	1.05	44.44	45.49	14,157	9.83	55.32	19.66	2041
O10	15	1.43	20.14	21.57			21.57		
O18	14	1.33	10.75	12.08			12.08		
O24	29	2.76	17.04	19.8			19.80		
O30	59	5.61	39.41	45.02			45.02		
O45	17	1.62	11.15	12.77			12.77		
O46	7	0.67	26.8	27.47	21,538	14.96	42.43	43.69	2065
O49	40	3.8	39.57	43.37			43.37		
O60	98	9.31	40.09	49.4			49.40		

**Table 2-4, continued**  
**Current Flows & Flow Projections to Buildout at 1% Growth Rate**

MH Collection Zone	Current EDU Count	ADWF (gpm)	I/I (gpm)	Total 2021 Flows (gpm)	Additional Buildout Flow (gpd)	Additional Buildout Flow (gpm)	Total flow @ Buildout (gpm)	Years to reach buildout @ 1% growth	Year Buildout Would Occur
GC8	237	22.52	40.18	62.7			62.70		
GC15	9	0.86	10.09	10.95			10.95		
GCRV3	73	5.55	20.72	26.27			26.27		
95	38	3.61	55.82	59.43	1,089	0.76	60.19	1.27	2022
97	7	0.67	12.48	13.15	30,129	20.92	34.07	95.68	2117
100	18	1.71	12.71	14.42			14.42		
102	10	0.95	6.13	7.08			7.08		
103	12	1.14	27.28	28.42			28.42		
107	12	1.14	15.41	16.55	41,382	28.74	45.29	101.17	2122
110	11	1.05	24.48	25.53	133,705	92.85	118.38	154.17	2175
121	9	0.86	21.56	22.42			22.42		
125	11	1.05	20.86	21.91	726	0.50	22.41	2.29	2023
129	15	1.43	30.41	31.84			31.84		
137	15	1.43	40.37	41.8	4,114	2.86	44.66	6.64	2028
145	0	0	0	0.00	264,385	183.60	183.60	1218.10	3239
145 LAFCO	0	0	0	0.00	1,142,357	793.30	793.30	1365.18	3386
152	1	0.095	41.37	41.37			41.37		
154	219	20.81	73.57	94.38			94.38		
168	21	1.99	18.43	20.42	32,298	22.43	42.85	74.49	2095
V1	122	11.59	58.44	70.03			70.03		
174	2	0.19	11.84	12.03	21,054	14.62	26.65	79.94	2101
180	26	2.47	23.94	26.41			26.41		
185	153	14.54	47.08	61.62			61.62		
LR26	1	0.095	13.68	13.78	65,340	45.38	59.16	146.42	2167
LR20	4	0.38	24.27	24.65	19,965	13.86	38.51	44.85	2066
LR9	6	0.57	7.51	8.08			8.08		
LR7	17	1.62	22.23	23.85			23.85		
Z37A	8	0.76	7.79	8.55			8.55		
Z37AB	37	3.52	28.99	32.51			32.51		
Z28A	31	2.95	16.82	19.77			19.77		
Z3	5	0.48	11.67	12.15			12.15		
Z2A	74	7.03	7.95	14.98			14.98		
Z1CB	71	6.75	12.39	19.14			19.14		
Z14	85	8.08	15.82	23.9			23.90		
Z17	47	4.47	9.14	13.61			13.61		
Z21	32	3.04	8.45	11.49			11.49		
Z23	77	7.32	15.68	23			23.00		
Z27	4	0.38	2.43	2.81			2.81		
Z11B	8	0.76	1.22	1.98			1.98		

**Table 2-4, continued**  
**Current Flows & Flow Projections to Buildout at 1% Growth Rate**

<u>MH Collection Zone</u>	Current EDU Count	ADWF (gpm)	I/I (gpm)	Total 2021 Flows (gpm)	Additional Buildout Flow (gpd)	Additional Buildout Flow (gpm)	Total flow @ Buildout (gpm)	Years to reach buildout @ 1% growth	Year Buildout Would Occur
Z28AA	40	3.8	8	11.8			11.8		
Z29	121	11.5	14.28	25.78			25.78		
Z30	41	3.9	7.86	11.76			11.76		
Z26E	27	2.57	2.02	4.59			4.59		
Z31E	13	0.99	0.79	1.78			1.78		
Z37E	39	2.96	3	5.96			5.96		
Z52E	14	1.06	0.89	1.95			1.95		
Z56E	21	1.6	1.34	2.94			2.94		
Z64E	30	2.28	1.46	3.74			3.74		
Z73E	21	1.6	1.59	3.19			3.19		
Z81E	70	5.32	5.27	10.59			10.59		
Z109E	28	2.13	1.83	3.96			3.96		
Z123E	35	2.66	2.23	4.89			4.89		
Z137E	77	5.85	5.58	11.43			11.43		
Z170E	46	3.5	2.11	5.61			5.61		
Z179E	13	0.99	0.85	1.84			1.84		
Z184E	14	1.33	1.47	2.8	2,299	1.60	4.40	45.34	2066
Z185E	51	3.88	3.35	8.2			8.20		
Z201E	36	2.74	2.35	5.09			5.09		
Z218EB	6	0.57	0.7	1.27			1.27		
Z221E	3	0.29	0.33	0.62			0.62		
Z223E	28	2.66	1.02	3.68			3.68		
Z234E	29	2.76	1.12	3.88			3.88		
Z246E	30	2.85	1.27	4.12			4.12		
Z261E	15	1.43	1.65	3.08			3.08		
Z283E	96	9.12	18.56	27.68			27.68		
DWR2	50	4.75	0.53	5.28			5.28		
W1	12	1.14	0.17	1.31			1.31		
Total (gpm):		581.46	3214.56	3796.84	3802909	2640.91	6437.75		
Total (MGD):		0.837	4.629	5.467	3.80		9.270		

## Chapter 3

### EXISTING WASTEWATER COLLECTION SYSTEM

This chapter describes the existing wastewater collection system within the District’s service area. The system includes gravity pipelines, manholes, pressure pipelines, and sewer pump stations as shown on Figure 5.

### WASTEWATER COLLECTION SYSTEM

According to an inventory of the District’s collection system maps, the system consists of approximately 77 miles of gravity sewer pipeline ranging from 3-inch to 30-inch diameter and approximately 4.5 miles of force main. The force main inventory includes approximately 2.5 miles of force main from the District’s lift stations and approximately 2 miles of small diameter pressure pipe within the Villa Verona STEP system. The collection system also includes approximately 1,550 manholes. Table 3-1 shows the pipeline system inventory. There are also nine sewer lift stations in the system.

Table 3-1

#### COLLECTION SYSTEM INVENTORY

Collection System Pipeline (3"-10", typ)	Collection System Manholes	Interceptor Pipeline (12"-24", typ)	Interceptor Manholes	Force Main (3"-8", typ)	Individual STEP Systems
348,128 ft. (65.9 mi.)	1,550	58,360 ft. (11.0 mi.)	203	23,760 ft. (4.5 mi.)	304

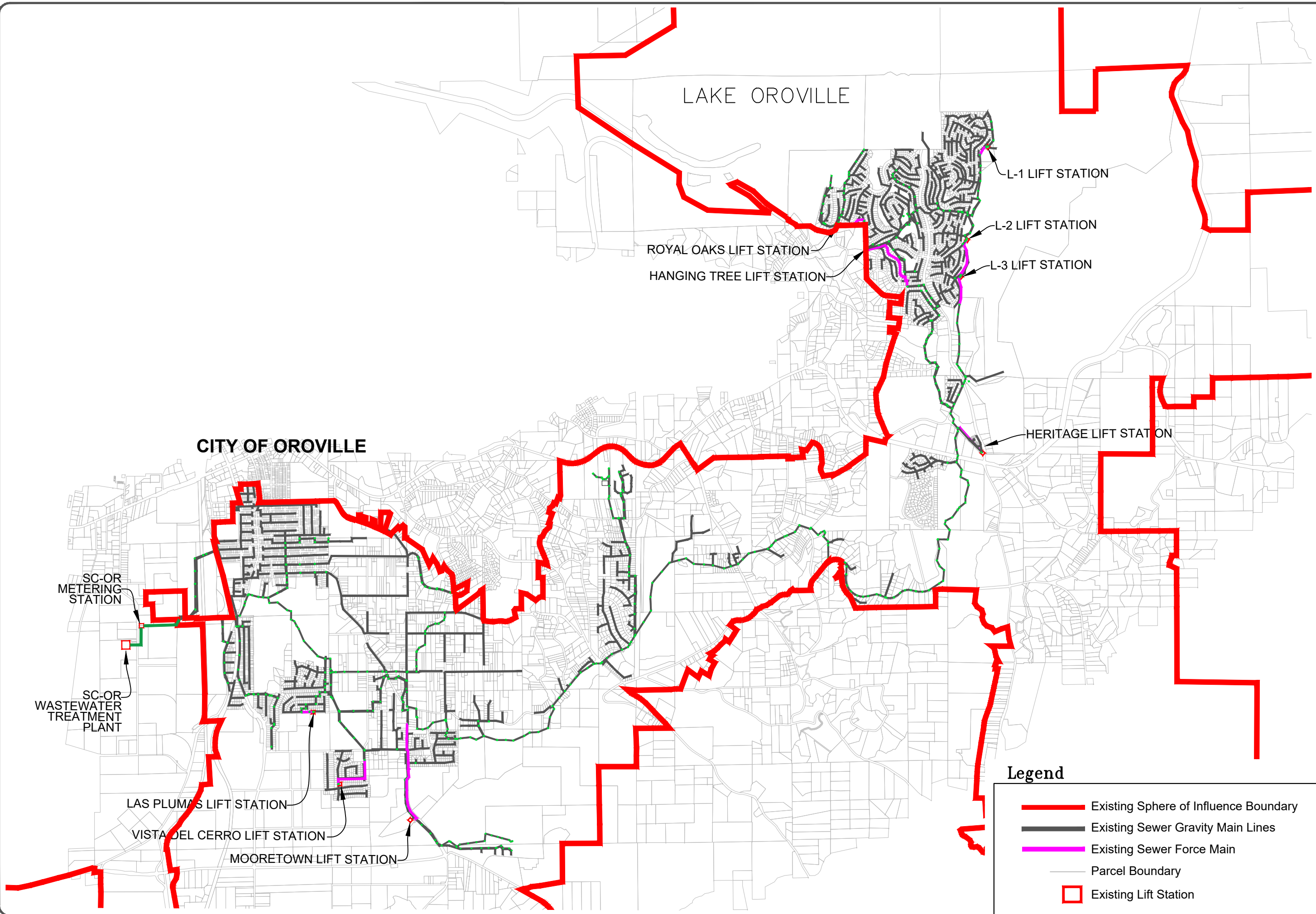
Pipeline materials vary throughout the collection system and include examples of many of the most popular pipeline materials used for sewer construction over the years. Materials include concrete, clay, steel, ductile iron, asbestos-cement, and polyvinyl chloride. Pipe joint materials have also changed over the years with older pipelines likely consisting of concrete mortar or leaded joints and newer pipelines consisting of synthetic rubber joints. The newer joint materials are believed to greatly improve pipe performance, with a marked reduction in infiltration rates.

Manholes are typically concrete, either cast-in-place or precast. Normal manhole depths range from 3 to 10 feet deep. There are some manholes which are very shallow, less than 2 feet, and some that are very deep, greater than 18 feet.

#### Villa Verona STEP System

The District operates an existing STEP (septic tank effluent pump) system in the Villa Verona Assessment District area. This system utilizes individual pumps and septic tanks located on the





**Legend**

- Existing Sphere of Influence Boundary
- Existing Sewer Gravity Main Lines
- Existing Sewer Force Main
- Parcel Boundary
- Existing Lift Station

customer’s property to pump wastewater from the customer to a District pipeline. These systems are used where local topography does not lend itself to either a conventional gravity collection system or a regional sewer lift station. These systems are considered high maintenance due to the need for servicing each of the pumps and periodic pumping of the septic tanks. Due to the high maintenance and the increased spill potential from the STEP system, the District has undertaken a program to replace portions of the Villa Verona STEP system with a conventional gravity system in areas where it is feasible. To date, the District has installed approximately 6,800 feet of gravity pipeline eliminating approximately 30 STEP system tank and pump systems and allowing for the connection of another 30 customers without the need for new tanks and pumps. Preliminary design for Phase 2 of the Villa Verona Replacement Project includes approximately 15,500 additional feet of pipeline replacement which would result in the elimination of another nearly 130 STEP system installations.

**Regional Lift Stations**

The collection system includes nine regional sewer lift stations currently maintained by LOAPUD for pumping sewage from local low-lying areas into the gravity collection system. Sewer lift station information is included in Table 3-2. Two of the lift stations are part of multiple stage pump systems whereby discharge from the stations flows to subsequent stations to be pumped again. Sewage from portions of the Kelly Ridge collection system must be pumped twice prior to reaching the gravity system.

**TABLE 3-2 - LOAPUD LIFT STATIONS**

<b>Royal Oaks Lift Station</b>	<b>Hanging Tree Lift Station</b>
Location: Royal Oaks Dr.	Location: Hanging Tree Ct.
Capacity: 200 gpm	Capacity: 350 gpm
EDUs Served: 129	EDUs Served: 495
Surface Elevation: 920'	Surface Elevation: 985'
Pumps: 2 - Moyno 1GOHS1, 15 hp	Pumps: 2, 2-Stage Gorman Rupp T6A-B 88 hp
Wet Well Size: 1,500 gallon	Wet Well Size: 1,500 gallons
Lift: 96'	Lift: 176'
Nearest Surface Water: 50'	Nearest Surface Water: 5'
Constructed: 1976	Constructed: 1976
Upgrades: Generator, SCADA, 2008	Upgrades: New Pumps, SCADA, 2003
<b>Heritage Lift Station</b>	<b>Las Plumas Lift Station</b>
Location: Rachell Road	Location: Las Plumas Ave.
Capacity: 130 gpm	Capacity: 110 gpm
EDUs Served: 12	EDUs Served: 110
Surface Elevation: 840'	Surface Elevation: 273'
Pumps: 2 - Peabody Barnes 4SEH-1002, 15 hp	Pumps: 2-Wemco Torque 3S2 submersible
Wet Well Size: 1,000 gallons	Wet Well Size: 1,500 gallons
Lift: 22'	Lift: 11'
Nearest Surface Water: 30'	Nearest Surface Water: 300'
Constructed: 1976	Constructed: 1965

<b>L-1 Lift Station</b>	
Location:	Bidwell Canyon Rd.
Capacity:	335 gpm
EDUs Served:	320
Surface Elevation:	938'
Pumps:	2 - Gorman Rupp T3A3S-B/WW, 15 hp
Wet Well Size:	4,500 gal
Overflow Storage:	11,000 gal
Lift:	42'
Nearest Surface Water:	100'
Constructed:	1976
Upgrades:	Rehab 2007

<b>L-2 Lift Station</b>	
Location:	Bidwell Canyon Rd.
Capacity:	447 gpm
EDUs Served:	422
Surface Elevation:	936'
Pumps:	2 - Gorman Rupp T6A3S-B/WW, 50 hp
Wet Well Size:	7,000 gal
Overflow Storage:	27,000 gal
Lift:	92'
Nearest Surface Water:	150'
Constructed:	1976
Upgrades:	Rehab 2007

<b>L-3 Lift Station</b>	
Location:	Bidwell Canyon Rd.
Capacity:	86 gpm
EDUs Served:	70
Surface Elevation:	949'
Pumps:	2-FLYGT submers. NP3102, 6 hp
Wet Well Size:	7,050 gal
Overflow Storage:	7,535 gal
Lift:	81'
Nearest Surface Water:	150'
Constructed:	1976
Upgrades:	Rehab 2007

<b>Mooretown Lift Station</b>	
Location:	Lower Wyandotte Rd.
Capacity:	325 gpm
EDUs Served:	668
Surface Elevation:	245'
Pumps:	2 - FLYGT NP3171 submersible 30 hp
Wet Well Size:	1,500 gal
Overflow Storage:	16,000 gal
Lift:	122'
Nearest Surface Water:	10'
Constructed:	1996
Upgrades:	Expansion 2006

<b>Vista Del Cerro Lift Station</b>	
Location:	Vista Del Cerro Rd.
Capacity:	300 gpm
EDUs Served:	217
Surface Elevation:	253'
Pumps:	HYDR-O-MATIC #s RV4B & LV4B, 15 hp
Wet Well Size:	1,500 gallons
Lift:	36'
Nearest Surface Water:	300'
Constructed:	1977

## **INFILTRATION/INFLOW**

The District's wastewater collection system is known to experience high rates of infiltration/inflow (I/I). This is not unusual considering the age and materials of much of the system. I/I is what accounts for the difference between dry weather flows and wet weather flows. Flows measured at the SC-OR meter indicate peak wet-weather flows are typically three to four times higher than dry-weather flows and can be as high as seven to eight times. These increases are directly attributable to I/I entering the system during wet weather conditions.

Infiltration is mainly groundwater which enters the collection system indirectly through defective pipes, pipe joints, damaged lateral connections, or manhole walls. Infiltration is related to high groundwater which is in turn influenced by rainfall and soil type. Infiltration does continue to impact the sewer system after a storm event has ended until the groundwater level is lower than the collection system. Infiltration also impacts the District's system even during the dry summer month periods due to nearby creeks and other water bodies.

Inflow is extraneous storm water which directly enters the sewer system through roof leaders, yard drains, sump pumps, clean outs, cellar drains, and storm drains which have been connected to the sewer collection system. Storm water may also enter the system through damaged or misplaced manhole lids and frame seals. Inflow tends to impact the sewer system in direct relation to storm events, starting as soon as runoff develops and ending shortly after the storm event ends.

High I/I rates can severely impact a sewer system in a number of ways. These include:

- ▶ The District pays to treat non-sewage flows.
- ▶ Peak I/I flows are the primary cause of surcharges and spills at manholes.
- ▶ Since design of replacement pipelines must take into account peak flows, the design tends to be driven by the need to accommodate I/I.
- ▶ The design of sewer lift stations must take into account I/I leading to larger facilities required to accommodate non-sewage flows.
- ▶ The District pays increased costs for larger facilities than would otherwise be needed for sewage flows.
- ▶ The District must pay SC-OR for excess peak flows.

The District maintains an ongoing and aggressive I/I reduction program which has been successful as evidenced by the history of flow patterns to the SC-OR plant over the years. Using television inspections, smoke testing, and personnel experience, the District has identified a number of I/I problem sections in the collection system including pipelines and manholes. District crews have repaired and rehabilitated some of the worst problem areas. The District also utilizes portable flow meters which help in locating and isolating areas of high I/I. This has made the I/I reduction program more effective by concentrating efforts on areas which have been identified as having high I/I rates.

#### Private Sewer Laterals

Although the District has seen significant improvement in terms of decreased I/I flows, I/I is still a problem in many locations and the District, especially in the oldest portions of the collection system. Most of the worst conditioned pipeline and manholes have been identified and either repaired or replaced. An additional source of I/I is privately owned sewer laterals which connect the individual buildings to the sewer main. Historically, these laterals are the responsibility of the property owner rather than the District which, over the years, has led to a

severe lack of maintenance on these pipes. As a result, private sewer laterals are now one of the primary sources of I/I into the District’s system.

In 2009, the District adopted a lateral pipeline testing and replacement program. This program requires that under various conditions, a property owner must test their sewer lateral and repair or replace the lateral if it does not meet current District standards. Triggers which require testing the lateral include connection of a new structure, remodel, change in use of a structure, repair/replacement of building sewer lines, and where District inspection reveals defects in the existing lateral. The District is currently exploring opportunities to provide assistance to property owners with repair/replacement expenses. With this lateral replacement program, it is anticipated that more lateral service lines will be replaced in the future which will have significant impact on I/I reduction.

Recent Replacement History

Since the 2010 Master Plan, the District has repaired and/or replaced sections of pipe throughout the service area to mitigate the I/I problem. The areas where pipeline has been replaced or repaired in response to I/I concerns are shown in Table 3-3.

**Table 3-3  
Sewer Pipeline Replacement History  
In Response To I/I Concerns**

<i>Location</i>	<i>Year</i>	<i>Size</i>	<i>Manhole # from</i>	<i>Manhole # to</i>	<i>Total Feet</i>	<i>Replace</i>
State Line Interceptor	2006-2009	Various	--	--	±8,270	Replace
Mission Line	2019	12"	S-16	S-18	465'	Replace
Idora Street	2018	6"	D-7	D-8	50'	Replace
Bidwell Reroute Line	2017	6"	--	--	265'	Replace
P-Line	2016-2018	12"&15"	S-113	P-7	1,795'	Replace
Laundromat Project	2014	8"	A-44	A-45	100'	Replace
Clinton Ave.	2011	8"	B-16	B-17	427'	Replace
Oakvale Court	2007	15"	S-113	S-125	2,992	Replace
Lincoln Crossing	2006	30"	M/H6	S-10	1,986	Replace
Lincoln Crossing	2006	36"	M/H1	M/H2	177	Replace
Lower Wyandotte	2006	27"	S-67	#11	1,985	Replace

L-2 Lift Station	2006	8"	L-2	L-3	1,000	Replace
Richtor Tract	2007	12"	A-10	A-40	955	Replace
Foothill Crossing	2008	30"	S-97	S-98	146	Replace
Foothill Crossing	2008	30"	S-98	S-99	70	Replace
Wahoo	2007	12"	S-126	S-127	140	Replace
Silverleaf	2007	8"	Z-31E	Z-31EA	87	Replace
Lower Wyandotte	2006	6"	G-67	G-70	72	Replace
Marysville Bagget	2005	N.A.	B-13	B-14	10	Replace

The district has also made numerous repairs to leaking pipe joints throughout their collection system in the last ten years.

## **Chapter 4**

### **COLLECTION SYSTEM MASTER PLAN**

The objective of the collection system master plan is to (1) determine the capacity and limitations of the existing collection system, and (2) determine the physical modifications, renovations, and additions to the existing collection system necessary to meet current and future needs. To meet these objectives, the area served by the system, both currently and in the future, was identified, subdivided, and evaluated so that the wastewater generated in the service area could be calculated. The existing collection system was then analyzed to determine its ability to transport the generated flows to the SC-OR treatment facilities.

### **SERVICE AREA**

The present service area and current sphere of influence as previously discussed is shown on Figure 2. As development occurs and the need for service expands, the service area will expand. Potential new service areas considered in this master plan are also shown on Figure 4. Predicting the timing and rate of expansion is very difficult because it is influenced by so many extraneous factors. For the purposes of modeling the collection system, the service area was analyzed in two stages; current year 2020 and buildout.

### **COLLECTION SYSTEM MODEL**

The geometry of the existing system was modeled on a computer with the aid of the following information:

Lake Oroville Area Public Utility District Geographic Information System Mapping,  
Updates Ongoing

Villa Verona Replacement – Phase 1 Improvement Plans, May 2009

Lake Oroville Area Public Utility District System Map, February 2000

North Burbank Public Utility District Modifications to Royal Oaks Pump Sta., Sep 1978

North Burbank Public Utility District Sphere of Influence, June 1984

Kelly Ridge Estates Improvement Plans, September 1970

L-System Lift Station Modifications, January, 2007

Topographic Survey State Line Rehabilitation, March 2002

Topographic Survey Sanitary Sewer Facilities, May 2006

State Line Sewer Replacement 2006 - Phase 1, April 2006

## State Line Sewer Replacement 2009 - Phase 2, May 2009

### LOAPUD Sewer System Masterplan, 2010

In the model, existing interceptor lines and major collector lines were listed with their manholes, pipeline diameters, inlet and outlet elevations, and lengths. The topographic maps were used to lay out proposed interceptor and collector lines to serve areas beyond the present limits of the system. Elevations were also obtained from topographic maps and Google Earth™. A more detailed discussion of the modeling techniques and applicable input and output parameters is included in Appendix A of this report.

### **WASTEWATER FLOW QUANTITIES**

In Chapter 2, land use and population trends were analyzed and projected into the future. Factors of wastewater production were applied to develop flow rates for land use areas at points of time in the future. These flow rates provide the basis for formulation of this master plan.

The collection system was modeled for the year 2020 and at buildout growth conditions. Sewage flows for the 2020 model were based on the current distribution of development and land uses. Collection zones were established using the District's sewer system maps. Collection zones consisted of areas of branched systems of smaller collection pipelines which eventually tie together to discharge at a single point into one of the sewer interceptor lines. Only the sewer interceptor lines, major collector lines, and some of the force mains were included in the collection system model. Flows accumulated in the collection zone pipelines were input as point sources into the appropriate interceptor line manholes.

Collection system models for the buildout conditions were based on the Butte County and City of Oroville General Plan maps for the study area. The additional residential and commercial development was distributed within the study area with emphasis on currently active new developments. Additional growth included infill of areas currently within the sewer service area and new development outside the sewer service area which could reasonably be expected to connect to the sewer system. For purposes of this master plan, some areas within the study area which are currently being served by individual septic/leachfield systems are expected to continue to use those systems and not contribute flow to the sewer system.

Essential elements in the development of the system requirements are the unit and per capita flows for the various types of anticipated land uses, as well as the characteristics of these general flows. The requirements must reflect the variations in the seasonal, daily, and hourly rates of flow so that the various elements of the system are properly related to each other and are economically sized.

The wastewater flow into the system is comprised of domestic flow, infiltration, and inflow. Domestic flow is generated in households, commercial and industrial establishments, and



public facilities. The flow of wastewater, excluding I/I, will vary throughout the day, with maximum flows occurring during the day and minimum flow at night. Domestic flow does not have a significant seasonal variation.

### Sewer Pipeline Design Considerations

When designing for the proper size and slope for a new sewer line, the maximum domestic flow must be determined. The relationship between maximum domestic flow and average flow is usually expressed through a design term called “peaking factor.” This peaking factor is multiplied by the average flow to determine the peak flow. Design peaking factors vary with the size of the collection system. Large systems have lower peaking factors (often about 2.0), while small systems have higher peaking factors (in the range of 3.0 to 4.0).

From a sewer modeling point of view, it is important to look at the sewer pipelines in terms of their capacity for storm events and the peak wet weather flow (PWWF). Analyzing a pipeline’s ability to carry PWWF is crucial to lessen the potential for pipeline surcharging and potential overflowing of manholes. Taking this into account, the computer modeling program peaked domestic flows based on a wet weather peaking factor developed by comparing SC-OR metering records of dry weather ADWF and wet weather PWWF.

### Peak Flow

The peak daily flow during this study period is shown to be 7.7 mgd with an average daily flow during this study period of 0.75 mgd. Table 4-1 shows that daily wet weather flows are typically 0.8 to 1.2 mgd. This is 1.3 times the average daily dry weather flow. However, the SC-OR plant receives peak flows from LOAPUD of short duration that can be in the range of 6 to 8 mgd. Although these are short duration flows, they do have the potential to cause temporary spillage or overflows and the lifting of manhole lids. The SC-OR plant charges the District for exceeding its peak flow. This charge is one time annually, for the highest recorded daily peak flow of that year. SC-OR determines that peak flow based on multiplying their waste generation factor of 260 gpd/EDU times the number of LOAPUD EDUs times a peaking factor of 4. This equates to an allowable peak day flow of approximately 6.2 mgd. Comparing these instantaneous peak flows to the ADWF as seen at the SC-OR Plant, a peaking factor of 6.5 was determined and was used in the model to determine PWWF. The PWWF in the model was used to determine the adequate pipe size for existing and future pipes in the District and determine when that pipe size would be needed to carry the projected PWWF.

**Table 4-1  
Average Wet Weather Flow**

	<i>Average Wet Weather Flow, million gallons per day (mgd)</i>					
<i>Month</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>	<i>Average</i>
November	0.778	0.821	0.835	0.849		0.821
December	0.853	1.192	0.799	0.962		0.951
January	0.852	1.376	1.673	1.03	1.32	0.713
February	1.035	0.912	1.843	0.838	1.882	1.250
March	0.819	1.463	1.004	1.222	1.417	1.185
April	0.798	0.813	1.085	1.066	0.977	0.948
Average Wet Weather Flow (mgd)						0.978

Both infiltration and inflow are significant sources of flow in the existing District system. This is primarily due to the age and deteriorated condition of some of the older pipes, joints, private sewer laterals, and manholes. It is expected that new lines to be constructed will be much less susceptible to I/I.

Infiltration and inflow are, for the purposes of the computer model, treated as a single quantity that is accounted for in peaking the ADWF. The ADWF and PWWF quantities of I/I are calculated as components of design flows. The total design flows are comprised of infiltration, inflow, and domestic flows as follows:

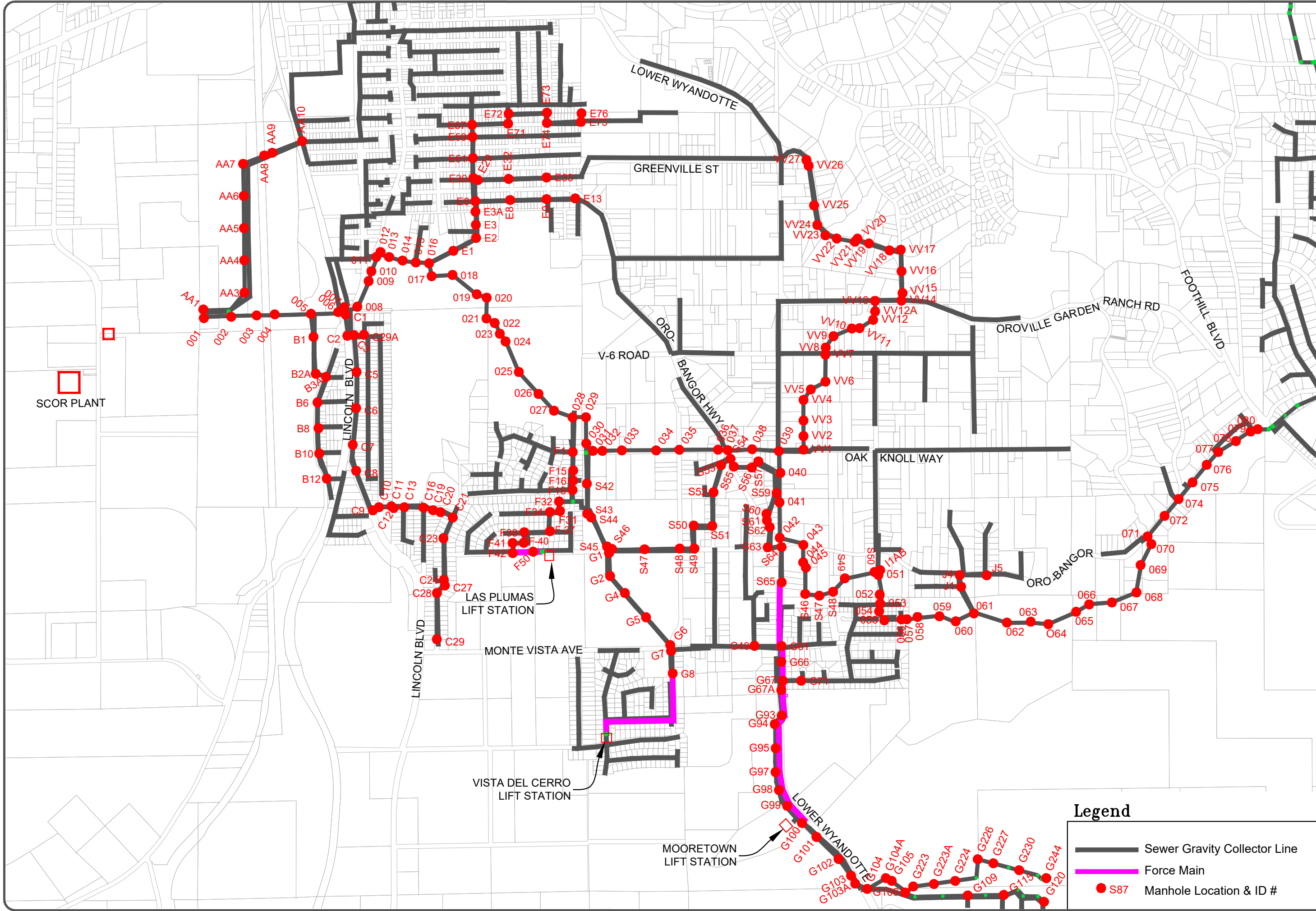
$$\text{ADWF} = \text{Average daily domestic flow} + \text{Average dry-weather I/I}$$

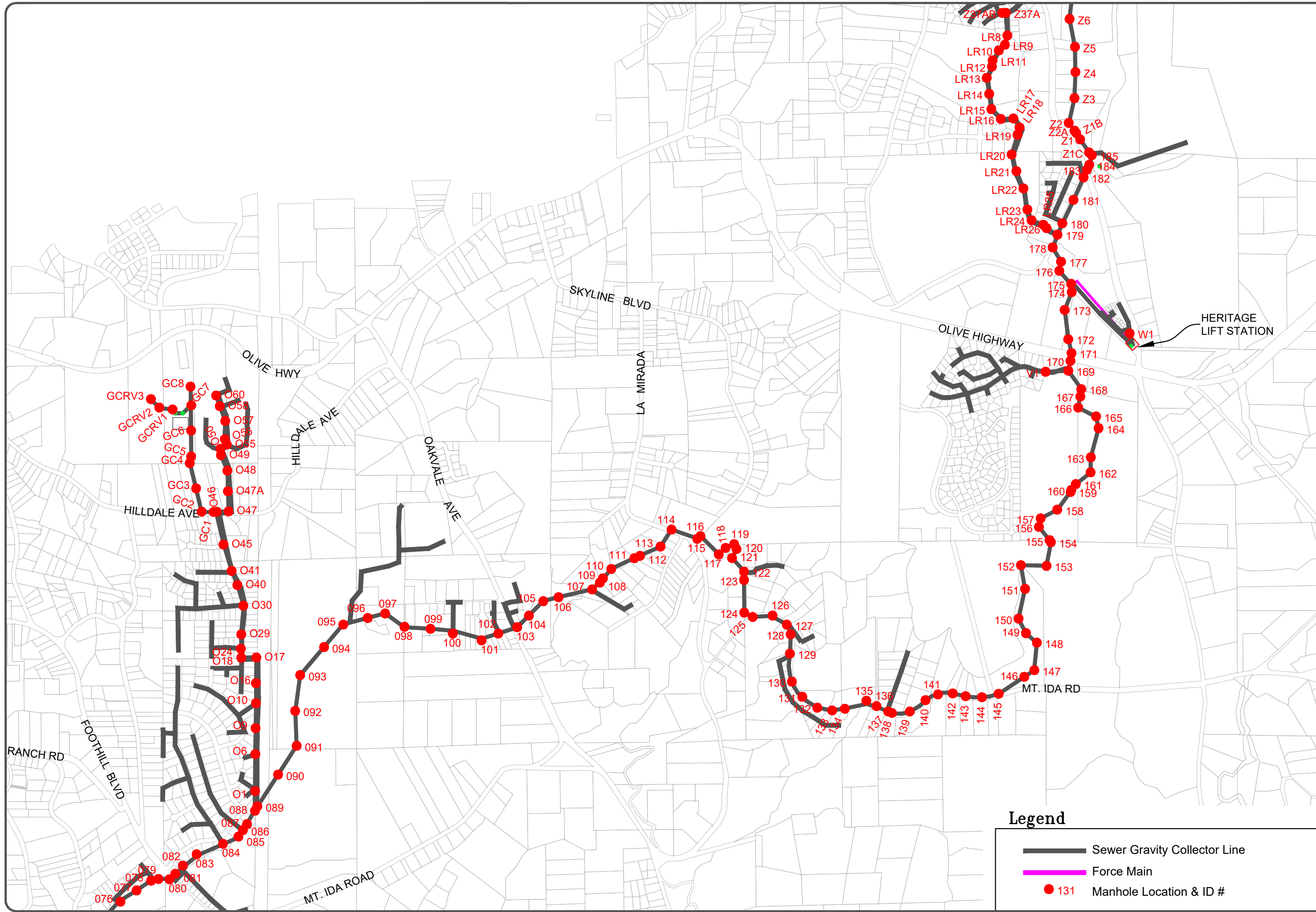
$$\text{PWWF} = \text{Peak daily domestic flow} + \text{Peak wet-weather I/I.}$$

The PWWF figures are used as design flows in evaluating the collection system so that the system will be able to transmit the maximum projected flow to the treatment facilities without sanitary sewer overflow (SSO) incidents.


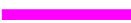

**PIPELINE SIZING**

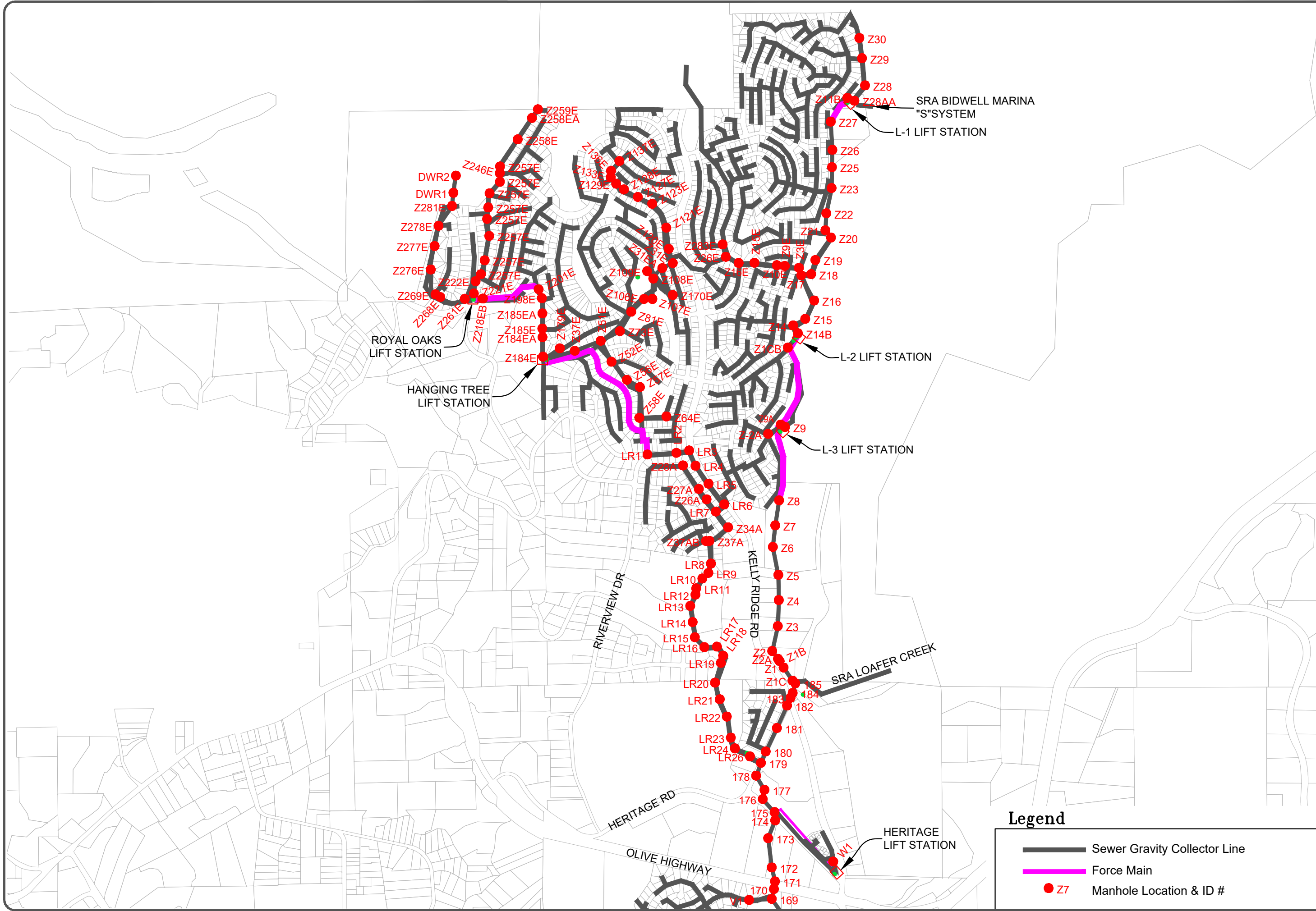
The District’s system was modeled on a computer using the previously discussed geometry and design flows. Figures 6, 7, and 8 show the manholes and the sections of pipeline between these manholes that were analyzed in the sewer model. These figures show the manhole numbers as entered in the computer model. The collection zones shown earlier in Figure 3 correspond to this manhole numbering whereas the collection zone number corresponds to the manhole on the interceptor line where the collection zone areas flow is introduced. The computer program analyzed the carrying capacity of each sewer line reach by reach. The capacity of each line was





**Legend**

-  Sewer Gravity Collector Line
-  Force Main
-  131 Manhole Location & ID #



calculated using Manning's equation and a Manning's friction coefficient of 0.013. A pipe was considered undersized when its depth to diameter ratio (d/D) at peak flow exceeded the design value of 0.75.

In the event that a pipeline reach was undersized, a correct replacement pipeline size for the projected flow was calculated. Results of these analyses for within the existing service boundary as well as analysis of projected peak wet weather flows out to the sphere of influence are included in the computer printouts in Appendix B of this report.

## **MODEL RESULTS**

The results of the computer modeling indicate that some portions of the existing interceptor line are in need of replacement to a larger diameter under the current PWWF conditions. When a peaking factor is applied to look at peak wet weather flows, many sections of pipeline for the current 2020 year are shown to be undersized as shown in the tabulated results in Appendix B-1. This situation can be caused by either that section of pipes diameter being too small or the slope of that section of pipe is too shallow to carry the flow. A pipe section will also be called out to be replaced if the d/D ratio is greater than 0.75. A section of pipe can also be labeled pressurized even if its d/D ratio is less than 0.75 and its slope and pipe diameter is adequate. This can be due to the downstream section of pipe being pressurized with a d/D of 1.0 and the wastewater is backed up in to the upstream section of pipe.

## **ADDITIONAL COLLECTION SYSTEM IMPROVEMENTS**

As part of this study, additional improvements were analyzed which would improve the operation of the collection system. These improvements are shown on Figure 9.

### Kelly Ridge 'A' Line

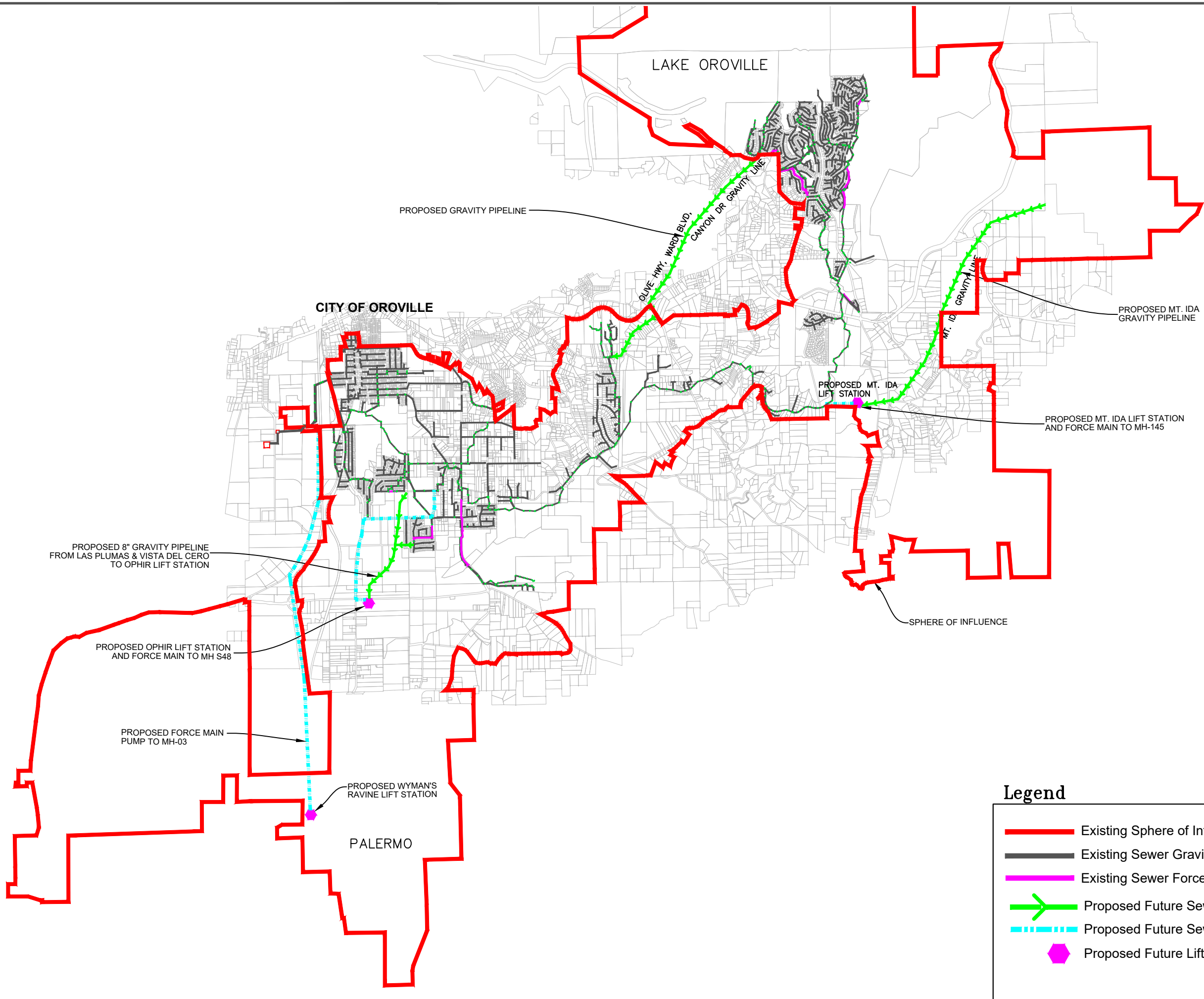
There is an opportunity to decrease reliance on pumping wastewater from the Kelly Ridge area by installing a new gravity pipeline north of Olive Highway. This line would be essentially located as was originally proposed as part of the Kelly Ridge Estates development and has been referred to as the 'A' Line. If carefully planned, this pipeline could extend into Kelly Ridge conveying flows currently being pumped by the Royal Oaks and Hanging Tree lift stations.

### Las Plumas Collector Line

With the anticipated construction of a new lift station near the intersection of Ophir Road and Lincoln Boulevard, currently undeveloped areas to the north and east will have the opportunity to receive sewer service by constructing a gravity sewer from Ophir Road to Las Plumas Avenue east of Lincoln Boulevard. This pipeline would also facilitate the decommissioning of the Las Plumas Lift Station and the Vista Del Cerro Lift Station.

### New Service Areas

As part of this study, transmission lines and lift stations were modeled to extend the collection system to new service areas. The model was analyzed for projected flow conditions with



**Legend**

- Existing Sphere of Influence
- Existing Sewer Gravity Main Lines
- Existing Sewer Force Main
- Proposed Future Sewer Gravity Main
- - - Proposed Future Sewer Force Main
- ◆ Proposed Future Lift Station

additional collection zones outside of the existing service boundary but within the existing sphere of influence as shown earlier in Figure 4. The system was modeled with the additional flow projections from these additional collection zones and the results are tabulated in Appendix B.

The pipelines and lift stations shown for the analysis outside of the service boundary are hypothetical sewer lines and stations based on the projected service area and the most effective use of existing topography. It is expected that the developers and/or property owners of the new service areas will bear the cost of installing these new facilities. This computer model may be used as a planning tool by the District. As these new facilities are installed, the District may require that they be sized to accommodate additional future connections.

The modeling anticipated the extension of a number of new pipelines, both gravity and force mains, to provide service to new outlying areas within the study area. In some cases, the location, alignment, and preliminary sizing were included in the collection system model. In other cases, it was considered too speculative given the uncertainties predicting actual locations and densities of future development.

#### New Lift Stations

In addition to pipelines, the modeling also anticipates the construction of three new sewer lift stations. One of these proposed stations which is currently being planned for construction in Summer 2021 is the Ophir-Lincoln Lift Station located near the intersection of Ophir Road and Lincoln Boulevard. This lift station will serve the area also known as the Las Plumas Study Area generally between Ophir Road and Las Plumas Road east of Lincoln Boulevard. This lift station would eventually allow for the decommissioning of the Las Plumas Lift Station and the Vista Del Cerro Lift Station. The second lift station is identified as the Mt. Ida Lift Station and would provide service to the Stringtown Area which encompasses the area southeast and east of Highway 162 near the intersection area of Mt. Ida Road, Miners Ranch Road and Old Olive Highway and eastward past Forbestown Road as shown previously on Figure 4. The proposed Mt. Ida Lift Station would eventually allow for the decommissioning of the Heritage Lift Station. The third new station which is identified as the Wyman's Ravine Lift Station would be located in the vicinity of Wyman's Ravine and Railroad Avenue near the town of Palermo as shown previously on Figure 4. This lift station would provide service for the Rio D'Oro development as well as the community of Palermo.

#### Community of Palermo

The community of Palermo, located south of LOAPUD's current service boundary, has also explored alternative ways to extend wastewater service to the area. The community has investigated alternatives for collection and conveyance, and/or treatment and disposal of their wastewater. Two alternatives have been evaluated. The first would be to construct new wastewater collection infrastructure (sewer mains, manholes, service laterals) within the Palermo service area with a new regional lift station (the proposed Wyman's Ravine Lift Station) that would pump the wastewater to the existing LOAPUD gravity system, or the SC-OR treatment plant. The second would be to construct the wastewater collection infrastructure



and also construct a new stand-alone wastewater treatment plant in the vicinity of Palermo to treat and dispose of the wastewater from the Palermo area. It is anticipated that with either of these scenarios, the Palermo service area would annex to LOAPUD to provide ongoing operation and maintenance.

#### Existing Pipeline Upgrades

Based on projected peak wet weather flows within the Master Study Area, there are sections of the existing system that need to be upsized to meet design conditions. Some will require replacement immediately and some in the future. The sections of greatest concern are portions of the District's State Line Interceptor.

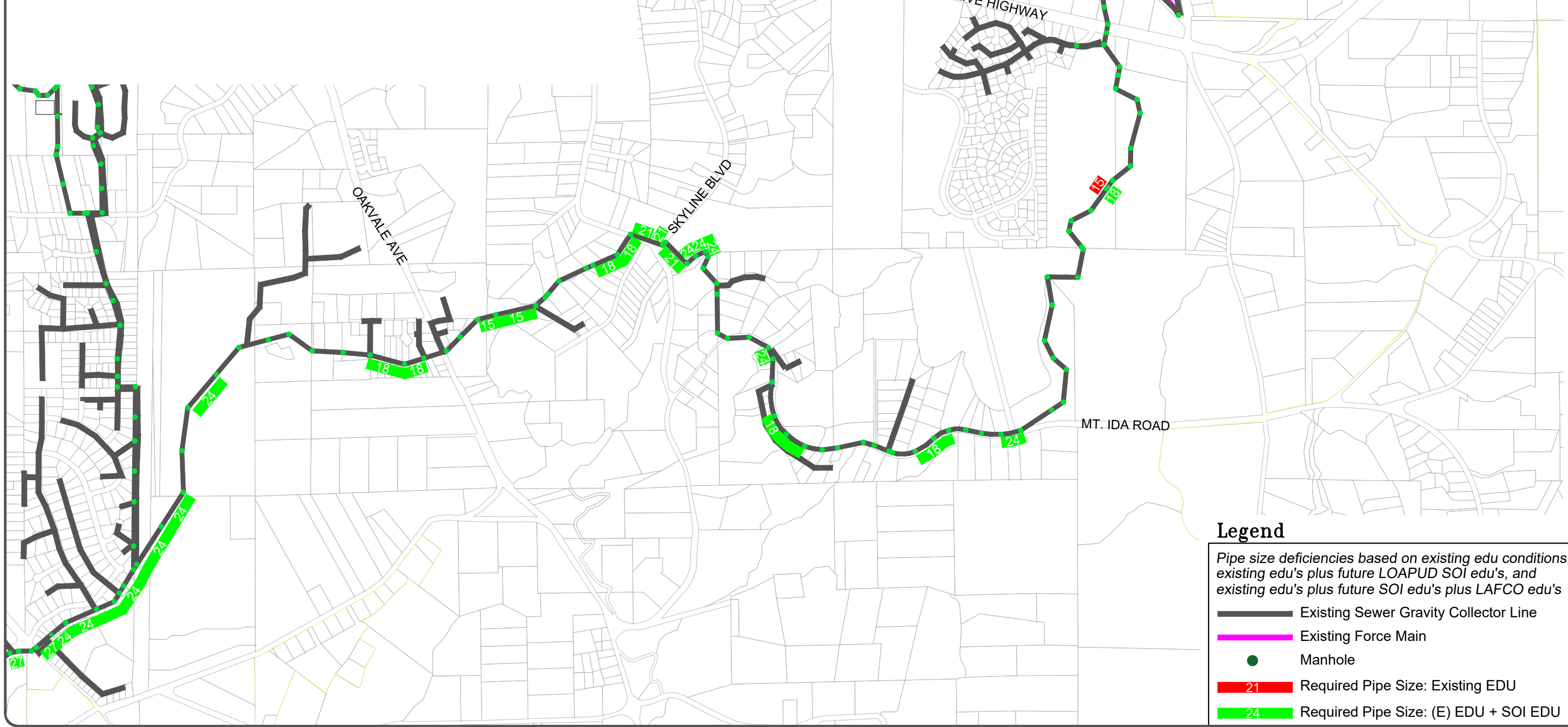
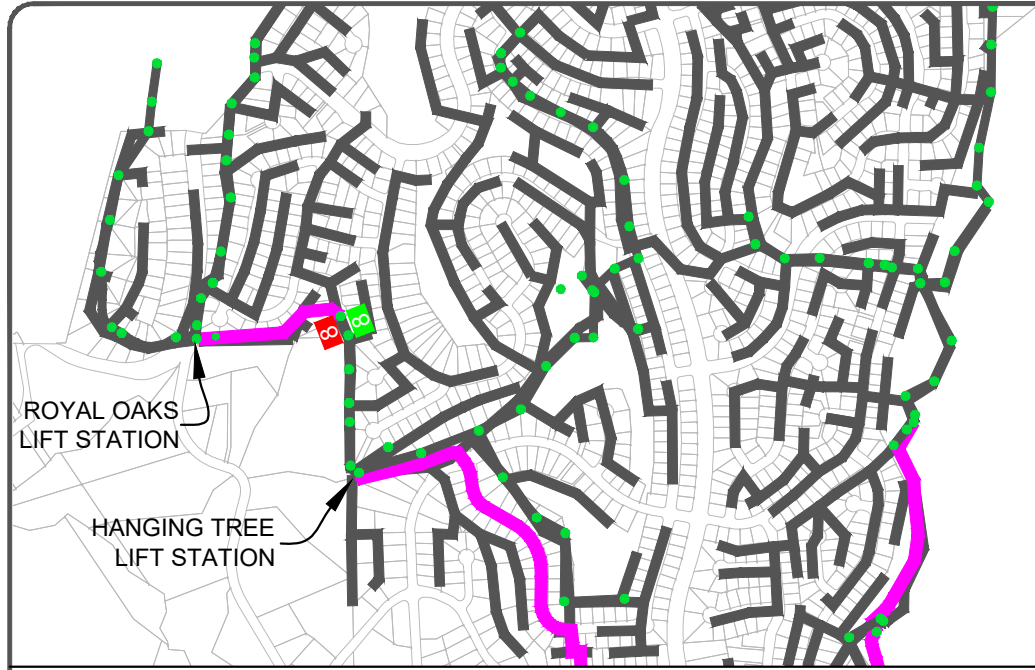
The State Line is the District's primary interceptor line conveying flows from throughout the service area to the SC-OR treatment plant. This pipeline periodically surcharges during peak wet weather events which was confirmed by the model. Portions of the State Line have been replaced with adequately sized pipe, however the model indicates that a significant portion of the line would be in need of replacement either now or by buildout, including section of pipe that are deemed necessary for replacement now to accommodate peak wet weather flows. Table 4-2 lists all sections of pipeline that would need replacement currently or prior to buildout. This table shows the current diameter of sections of pipe needing replacement and the diameter required based on the year of analysis and the collection boundary. Thus it shows the required pipe section size based on the District staying within its current service area boundary or to expand service out to the Sphere of Influence (SOI). This data is also shown graphically on Figures 9 and 10.

Of particular concern with regard to the replacement of portions of the State Line is a large section of pipeline between the east side of Carriage Manor Mobile Home Park and Oro-Bangor Highway, and along Oro-Bangor Highway to Foothill Boulevard and past Foothill Boulevard paralleling Fairhill Drive. As Table 4-2 and Figures 9 and 10 show, this is the portion between manholes S-69A to S-96. The lack of adequate capacity of the existing pipeline in this area is mostly due to minimal slope of the pipe, with slopes as low as 0.002 to 0.003. This section of pipeline is also old clay pipe which can be a leading contributor to I/I. It is recommended that this whole stretch of pipeline from S-69A to S-96 be replaced with the required pipe size at buildout conditions. Also, it is recommended that the portion of pipeline approximately between S-93 to S-98 be replaced following an alternate alignment by moving the pipe to within Oro-Bangor Highway. An analysis of the topography and resulting slope of the pipeline shows that this alignment will provide improved flow characteristics for this section.

Figures 9 and 10 graphically show the sections of pipeline needing replacement, and the replacement pipe size. This graphical representation shows the required pipe diameter size based on projected PWWF for the entire Master Plan Study Area. The sections of pipeline highlighted in red are required to be replaced now to accommodate peak wet weather flows. The sections of pipeline highlighted in green are required to be replaced prior to buildout. The time to reach buildout for each of these sections was shown previously in Table 2-4.

**Table 4-2**  
**LOAPUD Sewer Master Plan 2021**  
**Pipeline Replacement – Based on Max/Full Depth of 0.75**

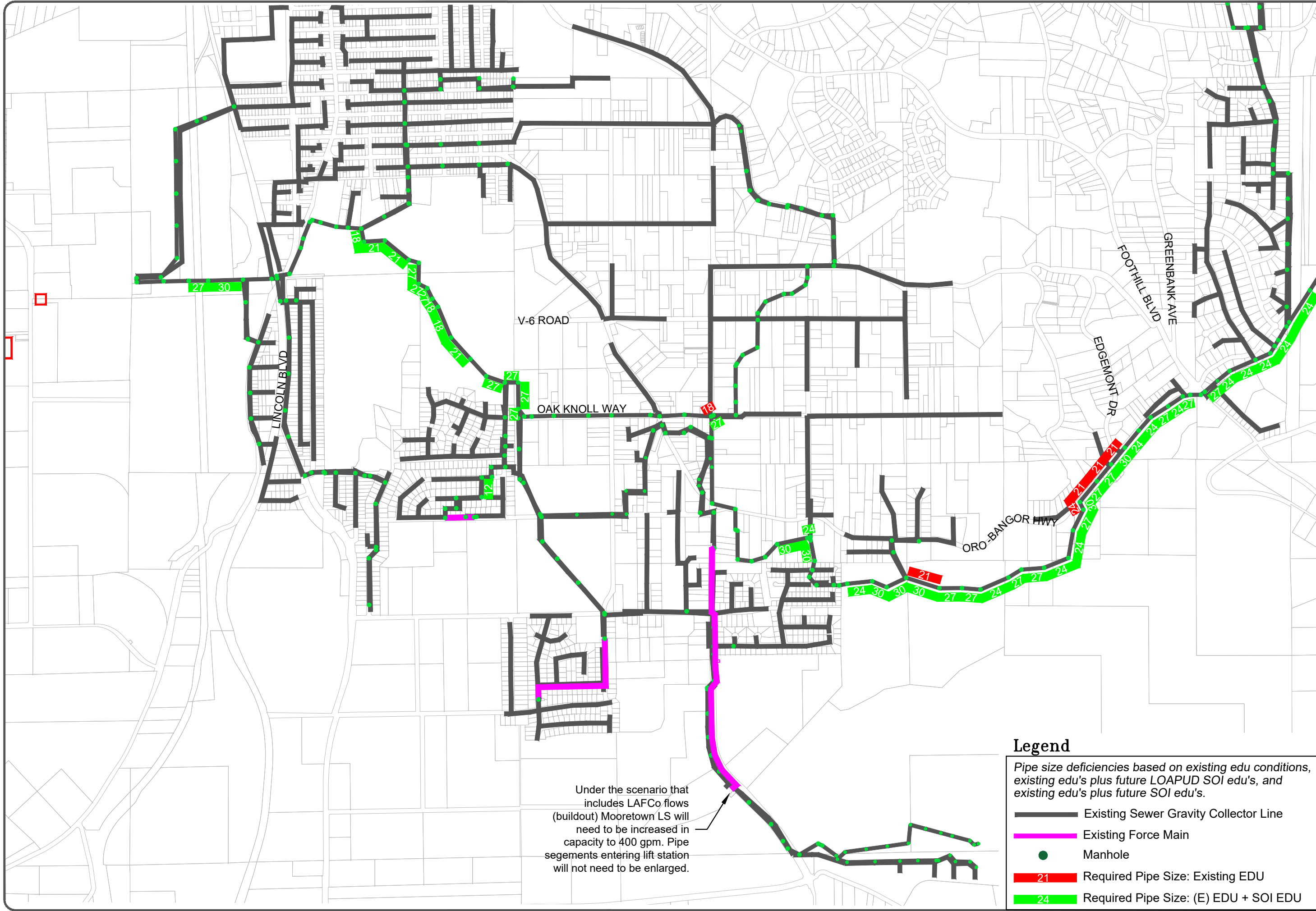
Pipe Segment:	Pipe #:	Pipe Length (ft)	Existing Dia. (in)	Existing EDU Upgrade Size Required Dia: (in)	Future SOI Upgrade Size Required Dia: (in)
RO LS FM – Z198E	C234	128	6	8	8
159-160	C159	20	12	15	18
144-145	C144	231	18		24
140-141	C140	198	12		18
139-140	C139	263	12		18
130-131	C130	251	12		18
129-130	C129	394	12		18
127-128	C127	140	18		24
119-120	C119	70	18		24
118-119	C118	124	18		24
117-118	C117	133	18		24
116-117	C116	349	18		21
115-116	C115	50	18		21
114-115	C114	386	18		21
113-114	C113	279	12		18
112-113	C112	305	12		18
106-107	C106	470	12		15
105-106	C105	216	12		15
101-102	C101	233	15		18
100-101	C100	408	15		18
93-94	C93	501	18		24
90-91	C90	467	18		24
89-90	C89	517	18		24
88-89	C88	70	18		24
87-88	C87	216	18		24
86-87	C86	96	18		24
85-86	C85	114	18		24
84-85	C84	221	18		24
83-84	C83	386	18		24
82-83	C82	214	18		24
81-82	C81	226	18		27
78-79	C78	104	18		27
77-78	C77	240	18		24
76-77	C76	283	18		27
75-76	C75	241	18		24
74-75	C74	301	18		24
73-74	C73	296	18	21	30
72-73	C72	300	18	21	27
71-72	C71	370	18	21	27
70-71	C70	115	18	24	30
69-70	C69	315	18		27
68-69	C68	383	18		24
67-68	C67	359	18		24
66-67	C66	311	18		27
65-66	C65	208	18		27
64-65	C64	414	18		24
63-64	C63	252	18		27
62-63	C62	309	18		27
61-62	C61	474	18	21	30
60-61	C60	298	18		30
59-60	C59	215	18		30
58-59	C58	340	18		24
51-52	C51	292	27		30
50-51	C50	52	27		30
49-50	C49	423	27		30
29-30	C29	361	24		27
28-29	C28	181	24		27
27-28	C27	271	24		27
25-26	C25	395	15		21
24-25	C24	457	15		18
23-24	C23	133	15		18
22-23	C22	162	24		27
21-22	C21	133	24		27
20-21	C20	286	24		27
18-19	C18	419	15		21
17-18	C17	285	15		21
16-17	C16	181	15		18
34-5	C4	476	24		30
3-4	C3	264	24		27
S41-30	C365	127	24		27
F34-F37	C436	267	8		12
50-11AB	C464	38	8		24
39-VV1A	C404	31	12	18	27
<b>Totals:</b>		19,038			



**Legend**






- Pipe size deficiencies based on existing edu conditions, existing edu's plus future LOAPUD SOI edu's, and existing edu's plus future SOI edu's plus LAFCO edu's*
- Existing Sewer Gravity Collector Line
  - Existing Force Main
  - Manhole
  - 21 Required Pipe Size: Existing EDU
  - 24 Required Pipe Size: (E) EDU + SOI EDU


Designed:	KEM	Page	36
Drawn:	KEM	Sewer System Masterplan 2021	
Date:	July 2021	Figure 10	
Scale:	N.T.S.	Pipeline Replacement Map #1	
<p><b>Sauers Engineering, Inc.</b> Civil &amp; Environmental Engineers 105 Providence Mine Rd., Suite 202, Nevada City, CA 95959 tel (530) 265-8021 www.sauerseng.com</p>		<p>1960 ELGIN STREET OROVILLE, CA 95966 TEL. (530) 533-2000</p> <p>Butte</p> <p>California</p>	



Under the scenario that includes LAFCo flows (buildout) Mooretown LS will need to be increased in capacity to 400 gpm. Pipe segments entering lift station will not need to be enlarged.

### Legend

-  Existing Sewer Gravity Collector Line
-  Existing Force Main
-  Manhole
-  Required Pipe Size: Existing EDU
-  Required Pipe Size: (E) EDU + SOI EDU

 <b>Sauer's Engineering, Inc.</b> Civil & Environmental Engineers 105 Providence Mine Rd., Suite 202, Nevada City, CA 95959 tel (530) 265-8021 www.sauerseng.com	1960 ELGIN STREET OROVILLE, CA 95966 TEL. (530) 533-2000 California	Page 37
	Butte Butte Butte	Sewer System Masterplan 2021 Figure 11 Pipeline Replacement Map #2
Designed: KEM Drawn: KEM Date: July 2021 Scale: N.T.S.		

The sewer model also identified existing lift stations which will require expansion due to projected peak flows. Table 4-3 shows the projected lift station capacity requirements from present conditions out to buildout. These capacity requirements are based on peak wet weather flows for the entire Master Study Area. This table shows the current (2020) capacity of each lift station and the required capacity for each lift station at the study interval for each service area. Thus, the table identifies what capacity would be required for each lift station if the District were to only continue serving within the existing service boundary or if the District were to expand service out to the masterplan study area. Model results indicate that only the Mooretown Lift Station will require expansion as additional development is connected.

**Table 4-3**  
**Sewer Model Wet Well Summary**

Wet Well Data Over 4-Day Simulation Run																		Lift Station Pump Model Data				
Lift Station Name	Scenario	Surcharge Depth (ft)	Avg. Depth (ft)	Max. Depth (ft)	Max. Total Inflow (gpm)	Total Inflow (MG)	Hours Surcharged (h)	Max. Surcharge (ft)	Min. Freeboard (ft)	Hours Flooded (h)	Max. Flood Rate (gpm)	Total Flood Vol. (MG)	Max. Pondered Depth (ft)	Avg. Volume (1000 ft³)	Avg. Percent Full (%)	Max. Volume (1000 ft³)	Max. Percent Full (%)	Current Capacity	Max.  Flow  (gpm)	Avg. Flow (gpm)	Total Vol. (MG)	Run Time Hours
HangingTreeWetWell	Existing edu + I&I	13.3	6.82	10.01	1422.12	0.80	96	7.16	3.34	0	0	0	0	0.343	51	0.503	75	350	349.33	292.49	0.428	6.153
HangingTreeWetWell	(E) edu +I &I with Upsized Pipes	13.3	6.82	10.01	1417.16	0.80	96	7.16	3.34	0	0	0	0	0.343	51	0.503	75	350	349.33	292.50	0.425	36.356
HangingTreeWetWell	Buildout edu + I&I	13.3	6.82	10.01	1423.45	0.81	96	7.16	3.34	0	0	0	0	0.343	51	0.503	75	350	349.33	292.51	0.434	37.037
HangingTreeWetWell	Buildout edu + I&I & Upsized Pipes	13.3	6.82	10.01	1420.30	0.81	96	7.16	3.34	0	0	0	0	0.343	51	0.503	75	350	349.33	292.51	0.435	37.036
HeritageWetWell	Existing edu + I&I	19.5	5.25	6	2.22	0.01	96	5.00	13.52	0	0	0	0	0.148	27	0.17	31	130	142.19	72.40	0.006	0.23
HeritageWetWell	(E) edu +I &I with Upsized Pipes	19.5	5.25	6	2.22	0.01	96	5.00	13.52	0	0	0	0	0.148	27	0.17	31	130	141.46	72.40	0.006	2.302
HeritageWetWell	Buildout edu + I&I	19.5	5.25	6	2.22	0.01	96	5.00	13.52	0	0	0	0	0.148	27	0.17	31	130	143.94	72.41	0.006	2.302
HeritageWetWell	Buildout edu + I&I & Upsized Pipes	19.5	5.25	6	2.22	0.01	96	5.00	13.52	0	0	0	0	0.148	27	0.17	31	130	75.81	72.39	0.006	2.302
L1WetWell	Existing edu + I&I	13.5	4.57	6	67.52	0.30	23.69	0.67	8.33	0	0	0	0	0.23	32	0.302	42	335	340	327.41	0.326	4.17
L1WetWell	(E) edu +I &I with Upsized Pipes	13.5	4.57	6	67.52	0.30	23.58	0.67	8.33	0	0	0	0	0.23	32	0.302	42	335	340	327.97	0.329	25.12
L1WetWell	Buildout edu + I&I	14	4.57	6	67.52	0.30	23.68	0.67	8.33	0	0	0	0	0.23	32	0.302	42	335	340	327.31	0.327	25.008
L1WetWell	Buildout edu + I&I & Upsized Pipes	14	4.57	6	67.52	0.30	23.64	0.67	8.33	0	0	0	0	0.23	32	0.302	42	335	340	327.53	0.327	25.079
L2WetWell	Existing edu + I&I	13	7.97	9.02	286.61	0.94	96	8.19	4.52	0	0	0	0	0.626	59	0.708	67	447	455	338.60	0.939	11.503
L2WetWell	(E) edu +I &I with Upsized Pipes	13	7.97	9.03	289.65	0.95	96	8.19	4.51	0	0	0	0	0.626	59	0.709	67	447	455	337.86	0.946	70.082
L2WetWell	Buildout edu + I&I	13	7.97	9.08	287.91	0.95	96	8.25	4.46	0	0	0	0	0.626	59	0.713	67	447	455	339.68	0.953	70.09
L2WetWell	Buildout edu + I&I & Upsized Pipes	13	7.97	9.03	289.77	0.95	96	8.20	4.51	0	0	0	0	0.626	59	0.709	67	447	455	339.02	0.953	70.245
L3WetWell	Existing edu + I&I	13.56	5.49	8	20.60	0.09	96	7.17	5.56	0	0	0	0	0.431	40	0.628	59	86	93.11	86.68	0.086	3.995
L3WetWell	(E) edu +I &I with Upsized Pipes	13.56	5.49	8	20.60	0.09	96	7.17	5.56	0	0	0	0	0.431	40	0.628	59	86	93.11	86.65	0.086	24.453
L3WetWell	Buildout edu + I&I	13.56	5.49	8	20.60	0.09	96	7.17	5.56	0	0	0	0	0.431	40	0.628	59	86	93.11	86.67	0.086	24.453
L3WetWell	Buildout edu + I&I & Upsized Pipes	13.56	5.49	8	20.60	0.09	96	7.17	5.56	0	0	0	0	0.431	40	0.628	59	86	93.11	86.64	0.086	24.459
LasPlumasWetWell	Existing edu + I&I	12	4.02	5	50.45	0.03	96	4.50	7.15	0	0	0	0	0.133	33	0.166	41	110	127.18	108.61	0.024	0.767
LasPlumasWetWell	(E) edu +I &I with Upsized Pipes	12	4.02	5	50.53	0.03	96	4.50	7.15	0	0	0	0	0.133	33	0.166	41	110	127.18	108.61	0.023	5.371
LasPlumasWetWell	Buildout edu + I&I	12	6.88	9	8.10	0.02	96	8.50	3.15	0	0	0	0	0.228	57	0.299	74	110	116.3	112.96	0.023	5.016
LasPlumasWetWell	Buildout edu + I&I & Upsized Pipes	12	6.88	9	6.46	0.02	96	8.50	3.15	0	0	0	0	0.228	57	0.299	74	110	116.3	112.96	0.023	5.016
MooretownWetWell	Existing edu + I&I	23	4.36	6.05	145.40	0.63	96	4.39	17.11	0	0	0	0	0.219	19	0.304	26	325	387.38	153.01	0.626	16.907
MooretownWetWell	(E) edu +I &I with Upsized Pipes	23	4.51	6.01	144.08	0.62	96	4.35	17.15	0	0	0	0	0.227	19	0.302	26	325	327.79	321.62	0.622	48.349
MooretownWetWell	Buildout edu + I&I	23	15.48	20.93	557.07	1.80	78.03	15.78	2.23	0	0	0	0	0.793	67	1.073	90	325	339.75	335.56	1.798	134.005
MooretownWetWell	Buildout edu + I&I & Upsized Pipes	23	3.03	4.06	376.75	1.96	0	0.00	19.09	0	0	0	0	0.155	13	0.208	18	325	406.27	403.47	1.963	121.694
RoyalOaksWetWell	Existing edu + I&I	12.73	4.51	10	34.16	0.13	96	9.00	2.73	0	0	0	0	0.127	35	0.283	79	200	254.62	238.16	0.163	3.344
RoyalOaksWetWell	(E) edu +I &I with Upsized Pipes	12.73	4.5	10	32.51	0.12	96	9.00	2.73	0	0	0	0	0.127	35	0.283	79	200	254.62	237.59	0.152	15.635
RoyalOaksWetWell	Buildout edu + I&I	12.73	4.5	10	32.51	0.12	96	9.00	2.73	0	0	0	0	0.127	35	0.283	79	200	254.62	237.58	0.152	15.635
RoyalOaksWetWell	Buildout edu + I&I & Upsized Pipes	12.73	4.5	10	32.51	0.12	96	9.00	2.73	0	0	0	0	0.127	35	0.283	79	200	254.62	237.61	0.152	15.634
VistaDelCerroWetWell	Existing edu + I&I	16.5	4.98	7	71.80	0.32	96	4.51	9.83	0	0	0	0	0.288	30	0.404	42	300	276.87	247.02	0.323	5.464
VistaDelCerroWetWell	(E) edu +I &I with Upsized Pipes	16.5	4.98	7	71.80	0.32	96	4.51	9.83	0	0	0	0	0.288	30	0.404	42	300	276.89	247.05	0.323	32.653
VistaDelCerroWetWell	Buildout edu + I&I	16.5	4	6	71.80	0.32	96	3.50	10.83	0	0	0	0	0.231	24	0.346	36	300	300.77	214.86	0.322	37.546
VistaDelCerroWetWell	Buildout edu + I&I & Upsized Pipes	16.5	4	6	71.80	0.32	96	3.50	10.83	0	0	0	0	0.231	24	0.346	36	300	300.77	214.85	0.322	37.546

## Chapter 5

### RECOMMENDED PLAN AND CAPITAL IMPROVEMENT PROGRAM

Collection system improvements will be necessary to meet current and future needs of the study area. Phased implementation of these improvements is recommended. This chapter summarizes the recommended improvement plan and provides cost estimates for anticipated improvements.

### COLLECTION SYSTEM PIPELINE REPLACEMENT

Table 5-1 is a list of unit prices used to develop the cost estimates for future sewer construction.

**Table 5-1**  
**Sewer Pipeline Construction Costs**

Pipe Diameter (inch)	Cost/Foot (\$)
8	\$140
10	\$160
12	\$190
15	\$230
18	\$260
21	\$275
24	\$285
27	\$300
30	\$320
36	\$340

Using these unit costs, Table 5-2 gives estimated construction costs (2020 pricing basis) for each discrete reach of pipeline needing replacement (as shown in Table 4-2) for current and for future capacity needs. In Table 5-2, there are two columns that list construction costs: one column for costs associated for pipeline replacements to meet current capacity needs (existing customers), and one column for costs associated with future capacity needs. The construction cost is based on the ultimate pipeline diameter that would be needed at buildout as shown in Table 4-2. The cost of replacing existing sewers which are incapable of carrying current and anticipated future flows includes the cost of materials and construction. Materials include pipeline, manholes, and fittings. Construction costs include soil and rock excavation, pipeline placement, backfill, surface restoration, contractor's overhead and profit, and other factors. Cost estimates do not include right-of-way, engineering, or similar expenses.

**Table 5-2  
LOAPUD Sewer Master Plan 2021  
Pipeline Replacement – Based on Max/Full Depth of 0.75**

Pipe Segment:	Pipe #:	Pipe Length (ft)	Existing Dia. (in)	Existing EDU Upgrade Size Required Dia: (in)	Costs Related to Current Capacity Needs (\$)	Future SOI Upgrade Size Required Dia: (in)	Costs Related to Future Capacity Needs (\$)	Total Cost (in 2020 \$)
RO LS FM – Z198E (Z201E-Z198E)	C234	128	6	8	\$17,920.00	8	\$0.00	\$17,920.00
159-160	C159	20	12	15	\$4,600.00	18	\$600.00	\$5,200.00
144-145	C144	231	18			24	\$65,835.00	\$65,835.00
140-141	C140	198	12			18	\$51,480.00	\$51,480.00
139-140	C139	263	12			18	\$68,380.00	\$68,380.00
130-131	C130	251	12			18	\$65,260.00	\$65,260.00
129-130	C129	394	12			18	\$102,440.00	\$102,440.00
127-128	C127	140	18			24	\$39,900.00	\$39,900.00
119-120	C119	70	18			24	\$19,950.00	\$19,950.00
118-119	C118	124	18			24	\$35,340.00	\$35,340.00
117-118	C117	133	18			24	\$37,905.00	\$37,905.00
116-117	C116	349	18			21	\$95,975.00	\$95,975.00
115-116	C115	50	18			21	\$13,750.00	\$13,750.00
114-115	C114	386	18			21	\$106,150.00	\$106,150.00
113-114	C113	279	12			18	\$72,540.00	\$72,540.00
112-113	C112	305	12			18	\$79,300.00	\$79,300.00
106-107	C106	470	12			15	\$108,100.00	\$108,100.00
105-106	C105	216	12			15	\$49,680.00	\$49,680.00
101-102	C101	233	15			18	\$60,580.00	\$60,580.00
100-101	C100	408	15			18	\$106,080.00	\$106,080.00
93-94	C93	501	18			24	\$142,785.00	\$142,785.00
90-91	C90	467	18			24	\$133,095.00	\$133,095.00
89-90	C89	517	18			24	\$147,345.00	\$147,345.00
88-89	C88	70	18			24	\$19,950.00	\$19,950.00
87-88	C87	216	18			24	\$61,560.00	\$61,560.00
86-87	C86	96	18			24	\$27,360.00	\$27,360.00
85-86	C85	114	18			24	\$32,490.00	\$32,490.00
84-85	C84	221	18			24	\$62,985.00	\$62,985.00
83-84	C83	386	18			24	\$110,010.00	\$110,010.00
82-83	C82	214	18			24	\$60,990.00	\$60,990.00
81-82	C81	226	18			27	\$67,800.00	\$67,800.00
78-79	C78	104	18			27	\$31,200.00	\$31,200.00
77-78	C77	240	18			24	\$68,400.00	\$68,400.00
76-77	C76	283	18			27	\$84,900.00	\$84,900.00
75-76	C75	241	18			24	\$68,685.00	\$68,685.00
74-75	C74	301	18			24	\$85,785.00	\$85,785.00
73-74	C73	296	18	21	\$81,400.00	30	\$13,320.00	\$94,720.00
72-73	C72	300	18	21	\$82,500.00	27	\$7,500.00	\$90,000.00
71-72	C71	370	18	21	\$101,750.00	27	\$9,250.00	\$111,000.00
70-71	C70	115	18	24	\$32,775.00	30	\$4,025.00	\$36,800.00
69-70	C69	315	18			27	\$94,500.00	\$94,500.00
68-69	C68	383	18			24	\$109,155.00	\$109,155.00
67-68	C67	359	18			24	\$102,315.00	\$102,315.00
66-67	C66	311	18			27	\$93,300.00	\$93,300.00
65-66	C65	208	18			27	\$62,400.00	\$62,400.00
64-65	C64	414	18			24	\$117,990.00	\$117,990.00
63-64	C63	252	18			27	\$75,600.00	\$75,600.00
62-63	C62	309	18			27	\$92,700.00	\$92,700.00
61-62	C61	474	18	21	\$130,350.00	30	\$21,330.00	\$151,680.00
60-61	C60	298	18			30	\$95,360.00	\$95,360.00
59-60	C59	215	18			30	\$68,800.00	\$68,800.00
58-59	C58	340	18			24	\$96,900.00	\$96,900.00
51-52	C51	292	27			30	\$93,440.00	\$93,440.00
50-51	C50	52	27			30	\$16,640.00	\$16,640.00
49-50	C49	423	27			30	\$135,360.00	\$135,360.00
29-30	C29	361	24			27	\$108,300.00	\$108,300.00
28-29	C28	181	24			27	\$54,300.00	\$54,300.00
27-28	C27	271	24			27	\$81,300.00	\$81,300.00
25-26	C25	395	15			21	\$108,625.00	\$108,625.00
24-25	C24	457	15			18	\$118,820.00	\$118,820.00
23-24	C23	133	15			18	\$34,580.00	\$34,580.00
22-23	C22	162	24			27	\$48,600.00	\$48,600.00
21-22	C21	133	24			27	\$39,900.00	\$39,900.00
20-21	C20	286	24			27	\$85,800.00	\$85,800.00
18-19	C18	419	15			21	\$115,225.00	\$115,225.00
17-18	C17	285	15			21	\$78,375.00	\$78,375.00
16-17	C16	181	15			18	\$47,060.00	\$47,060.00
34-5	C4	476	24			30	\$152,320.00	\$152,320.00
3-4	C3	264	24			27	\$79,200.00	\$79,200.00
S41-30	C365	127	24			27	\$38,100.00	\$38,100.00
F34-F37	C436	267	8			12	\$50,730.00	\$50,730.00
50-11AB	C464	38	8			24	\$10,830.00	\$10,830.00
39-VV1A	C404	31	12	18	\$8,060.00	27	\$1,240.00	\$9,300.00
<b>Totals:</b>		19,038			\$459,355.00		\$4,947,775.00	\$5,407,130.00



A summary of the cost estimates listed in Table 5-2 is provided in Table 5-3. These estimates include a 25% allowance for engineering, administrative, legal, and contingency costs.

**Table 5-3**

**PIPELINE REPLACEMENT SUMMARY**

	Construction Cost (2020 dollars)		
	2020	Future	Total
LOAPUD Sewer System	\$ 459,355	\$ 4,947,775	\$ 5,407,130
Engineering, Contingencies @ 25%	114,839	1,236,944	1,351,782
<b>Total</b>	<b>\$574,194</b>	<b>\$6,184,719</b>	<b>\$6,758,912</b>

The District should monitor the ability of critical pipelines to convey peak wet-weather flows. Table 4-3 and the data tables contained in Appendix B will be helpful in directing the staff's attention to the pipelines expected to be unable to convey the expected flows. Typical events of overloaded pipelines are surcharging in manholes and, in extreme cases, overflow of raw wastewater at manhole covers.

Following field confirmation of problem areas listed in Tables 4-2 and 5-2, it will be necessary to prepare plans and specifications, secure additional rights-of-way, if applicable, and proceed with bidding for construction. It would be normal to identify critical lines during winter. Engineering could be scheduled for spring, with construction scheduled for the following summer. Some work may be scheduled each year or the District could fund a large project each five to ten years.

Chapter 4 discussed potential future improvement projects to accommodate future expansion of the system to meet future development needs. It is difficult to predict the order or timing of expansion since there are so many variables predicting growth trends. Table 5-4 lists these proposed projects and the estimated associated construction costs. Because of the uncertainties in locating and sizing these facilities, these should be considered very preliminary estimates. These facilities only include the transmission mains, force mains, and lift stations and do not include any of the on-site collection systems. Cost estimates are calculated the same as for the pipeline replacements.

**Table 5-4****PROPOSED SEWER COLLECTION SYSTEM FACILITIES**

Location	Facility	Length (ft)	Estimated Construction Cost (\$)
Oro Quincy Hwy, Mt. Ida Rd, Forbestown Rd	“Hawk Ravine” gravity transmission pipeline	14,900	2,831,000
	Mt Ida Lift Station		1,500,000
	Force main	1,600	160,000
Olive Hwy, Ward Bl, Canyon Dr	“A Line” Gravity transmission pipeline	13,100	2,489,000
Las Plumas Study Area	Las Plumas Gravity pipeline	6,750	1,282,500
Wyman’s Ravine & Railroad Ave: Las Plumas Study Area	Wyman’s Ravine Lift Station		1,500,000
	Force main	19,400	1,940,000
<b>Total Construction Costs</b>			<b>\$11,702,500</b>
<b>Engineering, contingencies @ 25%</b>			<b>\$ 2,925,625</b>
<b>Total</b>			<b>\$14,628,125</b>

Table 5-5 lists the total cost estimates for sewer pipeline replacements and system expansion projects.

**Table 5-5****CAPITAL IMPROVEMENTS PROGRAM ESTIMATED CONSTRUCTION COSTS**

Project Type	2020 Projects	Future Projects
Pipeline Replacement	\$574,194	\$6,184,719
Proposed Facilities	\$0	\$14,628,125
<b>Total</b>	<b>\$574,194</b>	<b>\$20,812,844</b>

## APPENDIX A

### COMPUTER ANALYSIS

The Lake Oroville Area Public Utility District sewer collection system was modeled using the PCSWMM 2021 Version 7.4.3200 software package developed by Computational Hydraulics Int. First, a map of the collection system was digitized including pipes (conduits) and manholes (junctions) to produce a geometrically accurate layout of the system. Next, data and design conditions were attached to each of the model entities. This information included pipeline lengths and diameters, pipe and manhole invert and ground elevations, maximum depth ratio (depth of flow divided by the diameter of the pipe or  $d/D$ ) and minimum velocity requirements, pump station capacities and flow rates, wastewater flow inputs, and rainfall information and collection system I/I. Analysis results are given for each main pipeline modeled in the system.

Appendix B shows the tabulated results of the computer model analysis. Appendix B presents the analysis for the manholes at both scenario conditions of current EDU flows within the current service boundary and at projected buildout flows within the sphere of influence. Appendix B also presents the analysis for the pipes at both scenario conditions of current EDU flows within the current service boundary and at projected buildout flows within the sphere of influence

Geographic information is given for each pipeline including pipe diameter (inches), length (feet) and slope. Flows are given showing total sanitary flow, peakable flow, full pipe flow, and design flow at  $d/D$  of 0.75. Flow rates are given in million gallons per day (mgd). The tables show depth ratio ( $d/D$ ) and velocity (fps) within the pipe for the projected flows.

A pipeline was considered overloaded when the modeled  $d/D$  was greater than the maximum allowable  $d/D$  assigned to the pipe. Where this occurred, larger pipeline sizes were modeled in the program to determine a replacement pipeline diameter which would relieve the overloading conditions.

The computer analysis also identified pipelines which experience surcharge under modeling conditions. Surcharge is not necessarily an indication that a pipe is undersized. Adequately sized pipelines may experience surcharge when a backwater condition is created in a downstream pipeline. This should be considered when setting priorities for pipeline replacements. Identifying and replacing the pipelines responsible for creating the backwater condition may provide surcharge relief for a larger portion of the system.

The depth ratio (depth of flow divided by the diameter of the pipe or  $d/D$ ) is a good indicator of the severity of an overload condition. For this analysis, a pipeline was considered overloaded if the  $d/D$  was greater than 0.75. Some pipelines identified as overloaded may have a depth ratio

only slightly higher than 0.75 while others may be flowing full. This should be considered when setting priorities for pipeline replacement. In some cases, a d/D of 0.75 may be too high.

In the computer model wastewater inflow and I/I at manholes were considered separately. Based on influent flow records at the treatment plant, wet weather I/I is known to be a significant source of flow in the collection system. Based on records, the average wet weather flow to SC-OR and through the system is 5.5 mgd. A max day wet weather flow at the SC-OR plant is approximately 6 mgd.

In many pipelines, including many shown to be overloaded, I/I accounts for the majority of the flow and is the reason for the overloading condition. Assumptions were made as to the location and extent of I/I entering the system based on the number of pipes leading into a manhole (catchment area), the topography of the catchment area and on assumed and known ages and material types of pipes. A weighting factor was given to a catchment area based on the topography (flat or hills), pipe age and material and the percent of the total system collection pipe footage within that catchment area. Appendix C contains the table showing the calculations for determining I/I throughout the collection system area.

Based on dry weather flows at the SC-OR plant, Average Dry Weather Flows per EDU average 121 gpd/EDU. However, in modeling the system, other factors are accounted for that can refine the ADWF. And it is also assumed through records as well as operator experience that average flows from locations such as mobile home parks, retirement homes, or areas where majority of homes are second homes, the ADWF per EDU is much less. Utilizing known records from other municipalities and utilizing industry standards, an ADWF of 110 gpd/EDU was used for said areas. Thus, applying the ADWF of 110 gpd/EDU in said areas, it was determined that an ADWF of 137 gpd/EDU was required to be applied to all other areas in the collection system to equal the ADWF recorded at the SC-OR plant when combined with the 110 gpd/EDU.

The ADWF numbers were input at various locations throughout the system at manholes representing "catchment areas". After these flows were input based on the number of EDU's within each catchment area, the I/I flows were calculated within each catchment area to equal the wet weather flow of 5.5 mgd at the SC-OR plant. The calculations for I/I within each catchment area is shown in Appendix C.

Complementing the computer modeling program with a comprehensive I/I study would be very beneficial in defining and prioritizing a pipeline replacement program. Once a model is calibrated to accurately recreate I/I impacts in the system, the affects of eliminating I/I sources can also accurately be modeled.

This computer analysis is intended to identify potential collection system problem areas and provide guidance on possible pipeline replacements based on the conditions set in the model.

Prior to any actual pipeline replacement project, a thorough investigation of the actual design parameters including field verification of existing conditions should be conducted.

These printouts can be a powerful tool in effectively understanding the collection system. First, the printouts can be quickly scanned to identify reaches in need of improvement. Second, in conjunction with the accompanying maps, they describe the collection system status for any given location and its ability to handle larger loads where development or annexation is being considered. Third, this appendix serves as a guide for overall system improvements. It is a comprehensive but brief analysis of the trunk line system status that gives an overview of expected future conditions.

## **APPENDIX B**

### **SAMPLE COMPUTER MODEL RESULT PRINTOUTS**

The following are sample sheets of the computer model result printouts for the various modeling scenarios. Full sets of the printouts are available upon request.

**Appendix B-4**  
**Model Report for Pipes**  
**Future Buildout Inflows with I&I with Upsized Pipe - over a 4-day simulation period**

Pipe Name	Upstream MH	Downstream MH	Pipe Size (ft)	Pipe Length (ft)	Roughness	Upstream Elevation (ft)	Downstream Elevation (ft)	Slope (ft/ft)	Max Flow (gpm)	Max Velocity (ft/s)	Max/Full Flow (max (peak) fraction of pipe full flow during simulation)	Max/Full Flow (max (peak) fraction of pipe full depth during simulation)	Time Pipe Full Both Ends (hrs)	Time Pipe Full Upstream (hrs)	Time Pipe Full Downstream (hrs)	Time Pipe Flow is Greater Than Full Normal (hrs)	Time Where Flow Through Pipe was Limited By Its Capacity (hrs)
C1	2	1	2.5	368.063	0.013	172.504	168.739	0.01023	8513.84	10.74	0.46	0.39	0	0	0	0	0
C519	B2A	B1	0.667	504.362	0.013	191.61	190.058	0.00308	157.17	2.6	0.52	0.41	0	0	0	0	0
C52	53	52	2.25	130.312	0.013	299	298.67	0.00253	4472.46	3.71	0.64	0.64	0	0	0	0	0
C520	B1	5	0.667	310.228	0.013	190.058	178.211	0.03822	157.17	1.51	0.15	0.63	0.01	0.01	94.67	0.01	0.01
C521	C29A	C3	0.667	137.061	0.013	201.332	194.91	0.04691	150.39	5.47	0.13	0.49	0	0	0	0	0
C522	G25	VistaDelCerroW	0.667	38.082	0.013	242.304	235	0.19542	71.8	0.8	0.03	0.56	0.01	0.01	96	0.01	0.01
C523	E9	E8	0.667	497.274	0.013	237.389	224.7	0.02553	84.65	3.39	0.1	0.22	0	0	0	0	0
C524	E8	E6	0.667	473.869	0.013	224.7	216.298	0.01773	84.65	1.49	0.12	0.39	0	0	0	0	0
C525	LPMH	LasPlumasWetV	0.5	16.519	0.013	266	261.873	0.25802	6.46	0.1	0.01	1	93.23	93.23	96	0.01	0.01
C526	Z218EB	RoyalOaksWetV	1	120.828	0.013	893.035	843.573	0.44867	1.73	0.01	0	0.5	0.01	0.01	96	0.01	0.01
C527	Z179E	HangingTreeInl	0.5	277.329	0.013	945.755	910	0.13001	2.63	1.95	0	0.52	0.01	0.01	76.44	0.01	0.01
C528	Z11B	L1WetWell	0.5	20.453	0.013	933.05	919.671	0.86482	2.59	0.06	0	0.51	0.01	0.01	96	0.01	0.01
C529	Z283E	Z26E	0.5	174.418	0.013	1044.616	1032.305	0.07076	35	4.07	0.05	0.15	0	0	0	0	0
C53	54	53	2.25	104.585	0.013	299.6	299	0.00574	4473.54	4.49	0.42	0.55	0	0	0	0	0
C530	Z26E	Z16E	0.5	200.408	0.013	1032.305	1007.416	0.12516	44.65	5.31	0.05	0.15	0	0	0	0	0
C531	Z16E	Z15E	0.667	215.424	0.013	1007.416	987.151	0.09449	44.64	4.65	0.03	0.11	0	0	0	0	0
C532	Z15E	Z10E	0.667	304.658	0.013	987.151	962.056	0.08265	44.64	4.05	0.03	0.13	0	0	0	0	0
C533	Z10E	Z9E	0.667	97.634	0.013	962.056	957.852	0.0431	44.64	3.61	0.04	0.13	0	0	0	0	0
C534	Z9E	Z3E	0.667	205.997	0.013	957.852	946.423	0.05557	44.64	3.72	0.03	0.13	0	0	0	0	0
C535	Z3E	Z17	0.667	90.52	0.013	946.423	942.09	0.04792	44.64	2.56	0.04	0.27	0	0	0	0	0
C536	Z1CB	Z50C	0.5	126.928	0.013	948.935	934.171	0.11711	24.55	5.31	0.03	0.11	0	0	0	0	0
C537	Z50C	L2WetWell	0.5	87.814	0.013	934.171	918.242	0.18445	24.53	0.49	0.02	0.55	0.01	0.01	96	0.01	0.01
C538	Z2-A	Z9A	0.5	225.103	0.013	957.505	947.727	0.04348	20.6	3.53	0.04	0.12	0	0	0	0	0
C539	Z9A	Z9	0.5	19.064	0.013	947.727	942.55	0.28216	20.6	5.97	0.02	0.08	0	0	0	0	0
C54	55	54	2.25	151.449	0.013	300.13	299.6	0.0035	4473.65	5.07	0.54	0.5	0	0	0	0	0
C540	Z9	L3WetWell	0.833	39.078	0.013	942.55	931.556	0.29318	20.6	0.16	0	0.52	0.01	0.01	95.99	0.01	0.01
C55	56	55	2.25	237.516	0.013	300.82	300.13	0.00291	4473.78	4.63	0.6	0.53	0	0	0	0	0
C56	57	56	2.25	70.787	0.013	301.089	300.82	0.0038	4473.78	4.54	0.52	0.54	0	0	0	0	0
C57	58	57	2.25	114.745	0.013	301.476	301.089	0.00337	4473.83	4.65	0.55	0.53	0	0	0	0	0
C58	59	58	2	339.902	0.013	304.539	301.476	0.00901	4474	5.78	0.46	0.54	0	0	0	0	0
C59	60	59	2.5	214.524	0.013	304.943	304.539	0.00188	4474.29	4.83	0.56	0.44	0	0	0	0	0
C6	7	6	2.5	79.417	0.013	188.694	181.59	0.08981	7073.47	10.2	0.13	0.35	0	0	0	0	0
C60	61	60	2.5	298.459	0.013	305.522	304.943	0.00194	4474.64	3.97	0.55	0.51	0	0	0	0	0
C61	62	61	2.5	474.079	0.013	306.321	305.522	0.00169	4423.2	3.65	0.59	0.54	0	0	0	0	0

**Appendix B-5**  
**Model Report for Manholes**  
**Current Service Boundary Inflows with I/I - over a 4-day simulation period**

MH Name	Tributary edu's per manhole	MH In Elev. (ft)	MH Out Invert Elev. (ft)	Rim Elev. (ft)	Depth (ft)	Baseline (gpm)	Baseline Pattern	Average Value (gpm)	Time Pattern 1	Avg. Depth (ft)	Max. Depth (ft)	Max. HGL (ft)	Max. Lat. Inflow (gpm)	Max. Total Inflow (gpm)	Total Lat. Inflow (MG)	Total inflow (MG)	Total Daily Inflow (MGD)
1	0		168.739	174.839	6.1	0		0		0.44	0.48	169.21	0	4237.15	0	21.3	5.325
2	0	172.544	172.504	178.644	6.14	0		0		0.77	0.83	173.33	0	3899.32	0	19.5	4.875
3	5	173.866	173.756	185.176	11.42	27.993	Rainlandl	0.475	CommercialGrinderPump	0.94	1.02	174.78	28.71	3899.43	0.164	19.5	4.875
4	0	175.852	175.802	185.752	9.95	0		0		0.85	0.92	176.72	0	3871.56	0	19.4	4.85
5	0	178.251	178.211	190.371	12.16	0		0		0.97	1.05	179.26	0	3872.65	0	19.4	4.85
6	137	181.74	181.59	197	15.41	113.997	Rainlandl	13.015	ResDiurnalFlowCurve	0.74	0.8	182.39	137.42	3781.19	0.731	18.9	4.725
7	0	188.704	188.694	200.984	12.29	0		0		0.39	0.42	189.12	0	3409.87	0	16.9	4.225
8	0	189.909	189.759	206.209	16.45	0		0		0.74	0.79	190.55	0	3410.05	0	16.9	4.225
9	0	190.651	190.551	200.511	9.96	0		0		1.01	1.09	191.65	0	3410.08	0	16.9	4.225
10	0	191.187	191.127	199.437	8.31	0		0		0.84	0.92	192.04	0	3410.17	0	16.9	4.225
11	2	191.59	191.5	200.35	8.85	8.357	Rainlandl	0.19	ResDiurnalFlowCurve	1.07	1.16	192.66	8.7	3410.18	0.049	16.9	4.225
12	0	192.189	191.75	200.6	8.85	0		0		0.88	0.97	192.72	0	3401.63	0	16.8	4.2
13	0	192.282	192.132	201.642	9.51	0		0		0.89	0.98	193.11	0	3401.8	0	16.8	4.2
14	9	195.248	195.078	204.078	9	55.849	Rainlandl	0.855	ResDiurnalFlowCurve	0.62	0.68	195.75	57.39	3401.96	0.327	16.8	4.2
15	0	196.972	196.892	208.832	11.94	0		0		0.65	0.7	197.59	0	3344.67	0	16.5	4.125
16	0	199.741	198.801	213.461	14.66	0		0		0.66	0.72	199.52	0	3344.68	0	16.5	4.125
17	0	204.723	204.613	211.073	6.46	0		0		0.6	0.66	205.27	0	2838.51	0	13.9	3.475
18	0	213.983	213.883	222.103	8.22	0		0		0.59	0.66	214.54	0	2838.83	0	13.9	3.475
19	0	231.771	231.671	240.671	9	0		0		0.55	0.61	232.28	0	2839.05	0	13.9	3.475
20	0	232.22	232.12	251.12	19	0		0		0.85	0.93	233.05	0	2839.19	0	13.9	3.475
21	0	233.262	233.232	241.422	8.19	0		0		0.85	0.94	234.17	0	2839.22	0	13.9	3.475
22	0	233.802	233.652	244.952	11.3	0		0		0.89	0.99	234.64	0	2839.33	0	13.9	3.475
23	0	235.266	234.616	243.366	8.75	0		0		0.76	0.84	235.45	0	2839.25	0	13.9	3.475
24	0	239.42	239.33	246.44	7.11	0		0		0.58	0.64	239.97	0	2839.47	0	13.9	3.475
25	0	254.392	254.302	262.622	8.32	0		0		0.6	0.66	254.96	0	2839.65	0	13.9	3.475
26	0	268.377	268.287	276.687	8.4	0		0		0.58	0.64	268.93	0	2840.14	0	13.9	3.475
27	0	269.355	269.195	293.805	24.61	0		0		0.92	1	270.2	0	2840.55	0	13.9	3.475
28	0	270.161	270.131	296.431	26.3	0		0		0.88	0.97	271.1	0	2841.98	0	13.9	3.475
29	0	270.772	270.662	295.792	25.13	0		0		0.88	0.97	271.63	0	2595.36	0	12.6	3.15
30	0	272.282	271.742	287.742	16	0		0		0.87	0.96	272.7	0	2597.13	0	12.6	3.15
31	19	282.102	281.902	289.642	7.74	22.16	Rainlandl	1.805	ResDiurnalFlowCurve	0.34	0.36	282.27	25.41	2176.76	0.138	10.9	2.725
32	0	286.213	286.193	292.813	6.62	0		0		0.4	0.43	286.62	0	2152.39	0	10.7	2.675
33	0	287.622	287.542	294.242	6.7	0		0		0.7	0.76	288.3	0	2152.64	0	10.7	2.675
34	0	289.214	289.204	297.524	8.32	0		0		0.73	0.79	289.99	0	2152.86	0	10.7	2.675
35	0	289.684	289.574	305.774	16.2	0		0		0.97	1.05	290.62	0	2153.69	0	10.7	2.675
36	0	290.543	290.483	303.343	12.86	0		0		0.88	0.95	291.44	0	2154.39	0	10.8	2.7
37	21	290.96	291.01	303.96	12.95	7.53	Rainlandl	1.995	ResDiurnalFlowCurve	0.69	0.75	291.76	11.12	2154.58	0.055	10.8	2.7
38	5	291.566	291.646	311.386	19.74	3.771	Rainlandl	0.475	ResDiurnalFlowCurve	0.87	0.94	292.59	4.63	2144.99	0.024	10.7	2.675



## **APPENDIX C**

### **COMPUTER MODEL I/I CALCULATIONS**

**Appendix C**  
**LOAPUD Masterplan Model I/I Calculations**

MH #	Catchment #	Area ft <sup>2</sup>	# of MH's	% of MH Total	# of edu's	% of edu Total	Length of Mainline	% of Total Mainline Length	% Total (MH's, edu's, Length)	Average of % Total	Catchment Area Count	Area Type / Pipe Age Weighting Factor	Catchment Area I/I	Catchment Area I/I
													(MGPD) (Max AWWF x % Total x Weighting Factor)	(GPM)
3	3	642616.1	7	0.491%	5	0.080%	2804	0.746%	1.316%	0.439%	1	1.75	0.0403	27.993
6	6	2392688.45	33	2.314%	137	2.184%	6600	1.755%	6.254%	2.085%	1	1.5	0.1642	113.997
11	11	254202.77	3	0.210%	2	0.032%	382	0.102%	0.344%	0.115%	1	2	0.0120	8.357
14	14	328124.88	22	1.543%	9	0.143%	6460	1.718%	3.404%	1.135%	1	1.35	0.0804	55.849
31	31	1768139.13	6	0.421%	19	0.303%	1850	0.492%	1.216%	0.405%	1	1.5	0.0319	22.160
37	37	885071.6311	1	0.070%	21	0.335%	340	0.090%	0.495%	0.165%	1	1.25	0.0108	7.525
38	38	182137.21	1	0.070%	5	0.080%	370	0.098%	0.248%	0.083%	1	1.25	0.0054	3.771
39	39	643992.67	2	0.140%	25	0.399%	640	0.170%	0.709%	0.236%	1	1.25	0.0155	10.771
40	40	451243.57	2	0.140%	5	0.080%	900	0.239%	0.459%	0.153%	1	1.75	0.0141	9.768
42	42	740017.14	9	0.631%	18	0.287%	2200	0.585%	1.503%	0.501%	1	1.75	0.0460	31.968
51	51	1068756.78	15	1.052%	24	0.383%	4435	1.179%	2.614%	0.871%	1	1.5	0.0686	47.649
66	66	1105266.09	5	0.351%	8	0.128%	1500	0.399%	0.877%	0.292%	1	1.75	0.0269	18.653
71	71	544824.57	4	0.281%	19	0.303%	1470	0.391%	0.974%	0.325%	1	1.75	0.0298	20.722
73	73	227043.78	1	0.070%	5	0.080%	800	0.213%	0.363%	0.121%	1	2.25	0.0143	9.914
74	74	1229465.9	9	0.631%	15	0.239%	2340	0.622%	1.493%	0.498%	1	1.75	0.0457	31.743
81	81	582960.47	8	0.561%	26	0.415%	2150	0.572%	1.547%	0.516%	1	1.75	0.0474	32.907
84	84	1596855.84	12	0.842%	47	0.749%	3520	0.936%	2.527%	0.842%	1	1.75	0.0774	53.741
86	86	418292.55	5	0.351%	12	0.191%	1850	0.492%	1.034%	0.345%	1	2	0.0362	25.130
88	88	352798.3	13	0.912%	11	0.175%	5080	1.351%	2.438%	0.813%	1	1.5	0.0640	44.441
95	95	3821940.76	23	1.613%	38	0.606%	5475	1.456%	3.675%	1.225%	1	1.25	0.0804	55.822
97	97	730529.96	3	0.210%	7	0.112%	995	0.265%	0.587%	0.196%	1	1.75	0.0180	12.475
100	100	481151.01	2	0.140%	18	0.287%	640	0.170%	0.597%	0.199%	1	1.75	0.0183	12.706
102	102	316527.26	1	0.070%	10	0.159%	85	0.023%	0.252%	0.084%	1	2	0.0088	6.129
103	103	824251.42	10	0.701%	12	0.191%	2270	0.604%	1.496%	0.499%	1	1.5	0.0393	27.275
107	107	878094.2	4	0.281%	12	0.191%	950	0.253%	0.724%	0.241%	1	1.75	0.0222	15.407
110	110	468984.52	11	0.771%	11	0.175%	2500	0.665%	1.612%	0.537%	1	1.25	0.0353	24.481
121	121	1085320.21	9	0.631%	9	0.143%	1535	0.408%	1.183%	0.394%	1	1.5	0.0310	21.562
125	125	1346219.12	9	0.631%	11	0.175%	2130	0.566%	1.373%	0.458%	1	1.25	0.0300	20.856
129	129	1422138.98	12	0.842%	15	0.239%	3465	0.921%	2.002%	0.667%	1	1.25	0.0438	30.414
137	137	981588.99	17	1.192%	15	0.239%	4610	1.226%	2.657%	0.886%	1	1.25	0.0581	40.365
152	152	2394549.28	26	1.823%	1	0.016%	5885	1.565%	3.404%	1.135%	1	1	0.0596	41.370
154	154	3402210.22	20	1.403%	219	3.492%	4360	1.159%	6.054%	2.018%	1	1	0.1059	73.569
168	168	400513.77	6	0.421%	21	0.335%	1722	0.458%	1.213%	0.404%	1	1.25	0.0265	18.434
174	174	211807.33	6	0.421%	2	0.032%	1228	0.327%	0.779%	0.260%	1	1.25	0.0170	11.837
180	180	540828.32	10	0.701%	26	0.415%	3215	0.855%	1.971%	0.657%	1	1.25	0.0431	29.937
185	185	56730701.26	6	0.421%	153	2.439%	900	0.239%	3.099%	1.033%	1	1.25	0.0678	47.084
AA10	AA10	4189099.34	60	4.208%	410	6.537%	16173	4.301%	15.045%	5.015%	1	1.5	0.3949	274.263
B12	B12	646768.51	9	0.631%	41	0.654%	2480	0.659%	1.944%	0.648%	1	1.5	0.0510	35.443
B3A	B3A	477136.16	5	0.351%	32	0.510%	1750	0.465%	1.326%	0.442%	1	1.5	0.0348	24.175
B8	B8	251690.29	4	0.281%	20	0.319%	1395	0.371%	0.970%	0.323%	1	1.5	0.0255	17.689
C11	C11	186954.61	5	0.351%	18	0.287%	850	0.226%	0.864%	0.288%	1	1.5	0.0227	15.744
C16	C16	255153.62	4	0.281%	27	0.430%	1025	0.273%	0.984%	0.328%	1	1.75	0.0301	20.918
C20	C20	171324.32	3	0.210%	14	0.223%	700	0.186%	0.620%	0.207%	1	1.75	0.0190	13.180
C23	C23	292217.8	5	0.351%	25	0.399%	1115	0.297%	1.046%	0.349%	1	1.5	0.0275	19.063
C28	C28	248452.15	2	0.140%	21	0.335%	200	0.053%	0.528%	0.176%	1	2	0.0185	12.840
C29A	C29A	862738.33	13	0.912%	100	1.594%	4950	1.316%	3.822%	1.274%	1	1.5	0.1003	69.678
C3	C3	581744.27	8	0.561%	61	0.973%	3130	0.832%	2.366%	0.789%	1	1.5	0.0621	43.129
DWR2	DWR2	222444.94	1	0.070%	50	0.797%	0	0.000%	0.867%	0.289%	1	0.05	0.0008	0.527
E13	E13	5802388.72	1	0.070%	64	1.020%	0	0.000%	1.091%	0.364%	1	2	0.0382	26.506

**Appendix C**  
**LOAPUD Masterplan Model I/I Calculations**

MH #	Catchment #	Area ft <sup>2</sup>	# of MH's	% of MH Total	# of edu's	% of edu Total	Length of Mainline	% of Total Mainline Length	% Total (MH's, edu's, Length)	Average of % Total	Catchment Area Count	Area Type / Pipe Age Weighting Factor	Catchment Area I/I	Catchment Area I/I
													(MGPD) (Max AWWF x % Total x Weighting Factor)	(GPM)
E2	E2	292682.06	4	0.281%	10	0.159%	755	0.201%	0.641%	0.214%	1	1.75	0.0196	13.626
E29	E29	435237.65	5	0.351%	59	0.941%	1692	0.450%	1.741%	0.580%	1	1.5	0.0457	31.742
E33	E33	3155287.65	2	0.140%	44	0.702%	450	0.120%	0.961%	0.320%	1	1.5	0.0252	17.526
E3A	E3A	723513.66	10	0.701%	73	1.164%	3120	0.830%	2.695%	0.898%	1	1.5	0.0707	49.125
E51	E51	715117.11	9	0.631%	72	1.148%	2673	0.711%	2.490%	0.830%	1	1.5	0.0654	45.389
E59	E59	670588.33	8	0.561%	81	1.291%	2920	0.776%	2.629%	0.876%	1	1.5	0.0690	47.924
E67	E-67	1920775.48	32	2.244%	194	3.093%	9461	2.516%	7.853%	2.618%	1	1.25	0.1718	119.295
E76	E76	1430508.19	5	0.351%	129	2.057%	1361	0.362%	2.769%	0.923%	1	1.25	0.0606	42.069
F1	F1	1471022.24	30	2.104%	136	2.168%	6220	1.654%	5.926%	1.975%	1	1.59	0.1649	114.511
F31	F31	562631.12	11	0.771%	59	0.941%	2600	0.691%	2.403%	0.801%	1	1.6	0.0673	46.734
F42	F42	741924.7	7	0.491%	40	0.638%	1502	0.399%	1.528%	0.509%	1	1.5	0.0401	27.855
G100	G100	314879.59	8	0.561%	6	0.096%	1900	0.505%	1.162%	0.387%	1	0.25	0.0051	3.530
G106A	G106A	427491.17	7	0.491%	20	0.319%	2130	0.566%	1.376%	0.459%	1	0.25	0.0060	4.181
G109	G109	429078.26	4	0.281%	22	0.351%	900	0.239%	0.871%	0.290%	1	0.375	0.0057	3.968
G115	G115	571489.48	9	0.631%	14	0.223%	1500	0.399%	1.253%	0.418%	1	0.25	0.0055	3.808
G120	G120	2004924.88	6	0.421%	46	0.733%	1060	0.282%	1.436%	0.479%	1	0.25	0.0063	4.363
G226	G226	2086284.18	20	1.403%	35	0.558%	3600	0.957%	2.918%	0.973%	1	0.1	0.0051	3.546
G245	G245	1267547.07	18	1.262%	300	4.783%	2150	0.572%	6.617%	2.206%	1	0.1	0.0116	8.042
G25	G25	2784637.15	23	1.613%	209	3.332%	9300	2.473%	7.418%	2.473%	1	0.4	0.0519	36.061
G49	G49	2028061.66	12	0.842%	34	0.542%	4800	1.276%	2.660%	0.887%	1	0.1	0.0047	3.233
G6	G6	349889.83	3	0.210%	17	0.271%	875	0.233%	0.714%	0.238%	1	1.25	0.0156	10.848
G61	G61	682982.69	6	0.421%	41	0.654%	2270	0.604%	1.678%	0.559%	1	0.2	0.0059	4.079
G67	G67	290587.51	2	0.140%	13	0.207%	750	0.199%	0.547%	0.182%	1	0.25	0.0024	1.662
G71	G71	1335813.71	14	0.982%	135	2.152%	5225	1.389%	4.524%	1.508%	1	0.1	0.0079	5.497
G8	G8	462733.7	1	0.070%	16	0.255%	0	0.000%	0.325%	0.108%	1	1.25	0.0071	4.941
G99	G99	969457.08	23	1.613%	10	0.159%	4150	1.104%	2.876%	0.959%	1	0.1	0.0050	3.495
GC15	GC15	299476.78	6	0.421%	9	0.143%	1000	0.266%	0.830%	0.277%	1	1	0.0145	10.089
GC8	GC8	457502.33	6	0.421%	237	3.779%	785	0.209%	4.408%	1.469%	1	0.75	0.0579	40.179
GCRV3	GCRV3	1820773.34	8	0.561%	73	1.164%	2060	0.548%	2.273%	0.758%	1	0.75	0.0298	20.715
I1AB	I1AB	3709073.32	4	0.281%	52	0.829%	780	0.207%	1.317%	0.439%	1	1.75	0.0403	28.009
J1	J1	1167217.74	8	0.561%	22	0.351%	2745	0.730%	1.642%	0.547%	1	1.5	0.0431	29.927
J5	J5	1461050.29	3	0.210%	24	0.383%	750	0.199%	0.792%	0.264%	1	1.5	0.0208	14.446
LPMH	LPMH	269360.3	5	0.351%	22	0.351%	1070	0.285%	0.986%	0.329%	1	0.175	0.0030	2.097
LR20	LR20	228433.07	11	0.771%	4	0.064%	1865	0.496%	1.331%	0.444%	1	1.5	0.0349	24.265
LR26	LR26	72751.87	6	0.421%	1	0.016%	1180	0.314%	0.750%	0.250%	1	1.5	0.0197	13.681
LR7	LR7	216008.25	8	0.561%	17	0.271%	2375	0.632%	1.464%	0.488%	1	1.25	0.0320	22.234
LR9	LR9	135011.84	2	0.140%	6	0.096%	440	0.117%	0.353%	0.118%	1	1.75	0.0108	7.506
O10	O10	477739.51	7	0.491%	15	0.239%	2240	0.596%	1.326%	0.442%	1	1.25	0.0290	20.139
O18	O18	347380.06	3	0.210%	14	0.223%	1030	0.274%	0.707%	0.236%	1	1.25	0.0155	10.747
O24	O24	456474.08	4	0.281%	29	0.462%	1425	0.379%	1.122%	0.374%	1	1.25	0.0245	17.041
O30	O30	1237436.19	9	0.631%	59	0.941%	3845	1.022%	2.594%	0.865%	1	1.25	0.0568	39.410
O45	O45	386632.91	3	0.210%	17	0.271%	950	0.253%	0.734%	0.245%	1	1.25	0.0161	11.151
O46	O46	875093.93	12	0.842%	7	0.112%	3050	0.811%	1.764%	0.588%	1	1.25	0.0386	26.800
O49	O49	838037.94	18	1.262%	40	0.638%	2650	0.705%	2.605%	0.868%	1	1.25	0.0570	39.568
O60	O60	444660.06	10	0.701%	98	1.563%	1410	0.375%	2.639%	0.880%	1	1.25	0.0577	40.085
S45	S45	2606833.91	7	0.491%	61	0.973%	2650	0.705%	2.168%	0.723%	1	1.75	0.0664	46.111
S48	S48	1054725.04	13	0.912%	28	0.446%	3645	0.969%	2.327%	0.776%	1	1.5	0.0611	42.426
S58	S58	376009.83	6	0.421%	22	0.351%	1265	0.336%	1.108%	0.369%	1	1.5	0.0291	20.196
S64	S64	637223.88	2	0.140%	5	0.080%	500	0.133%	0.353%	0.118%	1	1.75	0.0108	7.506
V1	V1	2482980.79	34	2.384%	122	1.945%	7830	2.082%	6.412%	2.137%	1	0.75	0.0842	58.439

**Appendix C**  
**LOAPUD Masterplan Model I/I Calculations**

MH #	Catchment #	Area ft <sup>2</sup>	# of MH's	% of MH Total	# of edu's	% of edu Total	Length of Mainline	% of Total Mainline Length	% Total (MH's, edu's, Length)	Average of % Total	Catchment Area Count	Area Type / Pipe Age Weighting Factor	Catchment Area I/I	Catchment Area I/I
													(MGPD) (Max AWWF x % Total x Weighting Factor)	(GPM)
VV1	VV1	1829281.01	9	0.631%	24	0.383%	1700	0.452%	1.466%	0.489%	1	1.5	0.0385	26.721
VV14	VV14	1621854.47	2	0.140%	21	0.335%	630	0.168%	0.643%	0.214%	1	1.5	0.0169	11.714
VV17	VV17	861100.73	7	0.491%	21	0.335%	1325	0.352%	1.178%	0.393%	1	1	0.0206	14.317
VV22	VV22	940325.43	6	0.421%	21	0.335%	1411	0.375%	1.131%	0.377%	1	1	0.0198	13.742
W1	W1	632369.13	10	0.701%	12	0.191%	1877	0.499%	1.392%	0.464%	1	0.01	0.0002	0.169
VV7	VV7	4478250.74	9	0.631%	75	1.196%	1745	0.464%	2.291%	0.764%	1	1.25	0.0501	34.802
Z109E	Z109E	521386.3	6	0.421%	28	0.446%	2390	0.636%	1.503%	0.501%	1	0.1	0.0026	1.826
Z11B	Z11B	131642.72	2	0.140%	8	0.128%	500	0.133%	0.401%	0.134%	1	0.25	0.0018	1.218
Z123E	Z123E	433112.61	9	0.631%	35	0.558%	2415	0.642%	1.831%	0.610%	1	0.1	0.0032	2.226
Z137E	Z137E	1004392.14	24	1.683%	77	1.228%	6320	1.681%	4.591%	1.530%	1	0.1	0.0080	5.580
Z14	Z14	1060084.28	28	1.964%	85	1.355%	7100	1.888%	5.207%	1.736%	1	0.25	0.0228	15.819
Z17	Z17	919649.62	21	1.473%	47	0.749%	5780	1.537%	3.759%	1.253%	1	0.2	0.0132	9.137
Z170E	Z170E	585021.26	5	0.351%	46	0.733%	2455	0.653%	1.737%	0.579%	1	0.1	0.0030	2.111
Z179E	Z179E	124398.93	4	0.281%	13	0.207%	800	0.213%	0.701%	0.234%	1	0.1	0.0012	0.851
Z184E	Z184E	460541	5	0.351%	14	0.223%	2375	0.632%	1.205%	0.402%	1	0.1	0.0021	1.465
Z185E	Z185E	912046.57	14	0.982%	51	0.813%	3605	0.959%	2.754%	0.918%	1	0.1	0.0048	3.346
Z1CB	Z1CB	1003642.76	22	1.543%	71	1.132%	5280	1.404%	4.079%	1.360%	1	0.25	0.0178	12.392
Z201E	Z201E	572330.53	8	0.561%	36	0.574%	2995	0.796%	1.931%	0.644%	1	0.1	0.0034	2.347
Z21	Z21	593238.5	16	1.122%	32	0.510%	4325	1.150%	2.782%	0.927%	1	0.25	0.0122	8.453
Z218EB	Z218BE	121481.85	4	0.281%	6	0.096%	760	0.202%	0.578%	0.193%	1	0.1	0.0010	0.703
Z221E	Z221E	61914.82	2	0.140%	3	0.048%	300	0.080%	0.268%	0.089%	1	0.1	0.0005	0.326
Z223E	Z223E	378091.43	9	0.631%	28	0.446%	2285	0.608%	1.685%	0.562%	1	0.05	0.0015	1.024
Z23	Z23	953902.97	27	1.893%	77	1.228%	7670	2.040%	5.161%	1.720%	1	0.25	0.0226	15.679
Z234E	Z234E	623318.19	10	0.701%	29	0.462%	2580	0.686%	1.850%	0.617%	1	0.05	0.0016	1.124
Z246E	Z246E	924013.33	11	0.771%	30	0.478%	3170	0.843%	2.093%	0.698%	1	0.05	0.0018	1.272
Z261E	Z261E	1056724.35	19	1.332%	15	0.239%	4300	1.143%	2.715%	0.905%	1	0.05	0.0024	1.650
Z26E	Z26E	381379.6	9	0.631%	27	0.430%	2245	0.597%	1.659%	0.553%	1	0.1	0.0029	2.016
Z27	Z27	68646.79	2	0.140%	4	0.064%	235	0.062%	0.267%	0.089%	1	0.75	0.0035	2.429
Z283E	Z283E	1628351.64	35	2.454%	96	1.531%	7990	2.125%	6.110%	2.037%	1	0.25	0.0267	18.563
Z28A	Z28A	697409.63	7	0.491%	31	0.494%	1500	0.399%	1.384%	0.461%	1	1	0.0242	16.820
Z28AA	Z28AA	391470.14	4	0.281%	40	0.638%	1500	0.399%	1.317%	0.439%	1	0.5	0.0115	8.003
Z29	Z29	1798383.99	40	2.805%	121	1.929%	11655	3.099%	7.834%	2.611%	1	0.15	0.0206	14.280
Z2A	Z2A	1185594.65	23	1.613%	74	1.180%	5900	1.569%	4.362%	1.454%	1	0.15	0.0114	7.951
Z3	Z3	231913.5	6	0.421%	5	0.080%	1730	0.460%	0.961%	0.320%	1	1	0.0168	11.673
Z30	Z30	676957.04	15	1.052%	41	0.654%	3310	0.880%	2.586%	0.862%	1	0.25	0.0113	7.856
Z31E	Z31E	193355.2	3	0.210%	13	0.207%	885	0.235%	0.653%	0.218%	1	0.1	0.0011	0.794
Z37A	Z37A	127912.46	2	0.140%	8	0.128%	600	0.160%	0.427%	0.142%	1	1.5	0.0112	7.790
Z37AB	Z37AB	698678.92	14	0.982%	37	0.590%	3060	0.814%	2.385%	0.795%	1	1	0.0417	28.989
Z37E	Z37E	959964.06	12	0.842%	39	0.622%	3780	1.005%	2.469%	0.823%	1	0.1	0.0043	3.000
Z52E	Z52E	385366.75	3	0.210%	14	0.223%	1120	0.298%	0.731%	0.244%	1	0.1	0.0013	0.889
Z56E	Z56E	425400.16	5	0.351%	21	0.335%	1560	0.415%	1.100%	0.367%	1	0.1	0.0019	1.337
Z64E	Z64E	320722.77	4	0.281%	30	0.478%	1650	0.439%	1.198%	0.399%	1	0.1	0.0021	1.455
Z73E	Z73E	432796.04	6	0.421%	21	0.335%	2085	0.554%	1.310%	0.437%	1	0.1	0.0023	1.592
Z81E	Z81E	1452054.94	20	1.403%	70	1.116%	6825	1.815%	4.334%	1.445%	1	0.1	0.0076	5.266
TOTAL			1426	100.00%	6272	100.00%	376051	100.00%	300.00%	100.00%	143	143	4.637	3220.470

MGD

GPM



## Manager's Report

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 10 – Approval of the 2021 Sewer System Management Plan

In May of 2019 the District Board of Directors approved a proposal from Sauers Engineering to update the District's Sewer System Management Plan. The draft plan was presented to the Board at the August regular meeting for review and comment.

Any changes requested or recommended have been made and the plan is now presented to the Board for approval and adoption.

**Attachment Included**

*Recommended Action:* Approve the 2021 Sewer System Management Plan.



LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT

## Sewer System Management Plan

SEPTEMBER 2021

This Sewer System Management Plan includes the elements  
required by:

State Water Resources Control Board  
Order No. 2006-0003-DWQ  
Statewide General WDR for Wastewater Collection Agencies

# LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT

## SEWER SYSTEM MANAGEMENT PLAN

Lake Oroville Area Public Utility District is implementing the elements of the State Water Resources Control Board Order No. 2006-0003-DWQ Statewide General Water Discharge Requirements (WDR) for Wastewater Collection Agencies.

SSMP ELEMENT	Adopted	Revised
Development Plan and Schedule	September 11, 2007	
Section I - Goal	September 11, 2007	<i>January___, 2021</i>
Section II - Organization	September 11, 2007	<i>January___, 2021</i>
Section III - Legal Authority	January 11, 1989	June 14, 2005
Section IV - O&M Plan	April 2009	<i>January___, 2021</i>
Section V - Design & Performance Standards	February 1980	December 2011
Section VI - Overflow Response Plan	April 2009	<i>January___, 2021</i>
Section VII - FOG Control Program	April 2009	<i>January___, 2021</i>
Section VIII - System Capacity Plan	February 2010	Update in progress
Section IX - Monitoring Measurement & Program Modifications	September 14, 2009	<i>January___, 2021</i>
Section X - SSMP Program Audits	September 14, 2009	<i>January___, 2021</i>
Section XI - Communication Program	September 14, 2009	<i>January___, 2021</i>
Complete SSMP Implementation	September 14, 2009	<i>January___, 2021</i>

## SECTION I - GOAL



## Sewer System Management Plan (SSMP)

### Section I - Goal

Goal: The Goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent Sewer System Overflow (SSO), as well as mitigate any SSO's that do occur.

In order to meet the above stated Goal, the District commits to the following:

- Properly manage, operate, and maintain all portions of the Enrollee's wastewater collection system to minimize SSO's.
- Reduce the number of SSO's and achieve the greatest reasonable reduction in SSO's.
- Minimize and mitigate the adverse impacts of SSO's that may occur despite best efforts.
- Meet all applicable regulatory notification and reporting requirements.
- Protect public health and safety, and the environment.
- Provide a safe work environment for employees and contractors.
- Ensure corrective action is taken in a timely manner.
- Ensure compliance with current regulatory requirements.
- Cost effectively minimize Infiltration/Inflow ("I/I").
- Be available and responsive to the needs of the public and work cooperatively with local, state, and federal agencies to reduce, mitigate the impacts of, and properly report SSO's.
- Implement regular, proactive maintenance of the system to remove roots, debris, and Fats, Oils & Grease (FOG) in areas prone to blockages that may cause sewer backups or SSO's.

These goals were adopted by LOAPUD at a Board meeting on \_\_\_\_\_, 2021.

## **SECTION II - ORGANIZATION**

LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
SEWER SYSTEM MANAGEMENT PLAN (SSMP)  
SECTION II ORGANIZATION  
DISTRICT DIRECTORY

Sewer System Owner:

**Lake Oroville Area Public Utility District**

1960 Elgin Street

Oroville, CA 95966

[www.loapud.com](http://www.loapud.com)

Main Office:

tel. 530-533-2000

fax 530-533-1750

Contact Persons:

Scott McCutcheon

General Manager

Office: 530-533-2000

Cell: 530-520-2892

Kelly Hamblin

Communications Officer

Office: 530-533-2000

Field Operations Supervisor

Office: 530-533-2000

Cell:

Regulatory Agencies:

Governor's Office of Emergency Services

800-852-7550

California Regional Water Quality Control Board, Central Valley Region

415 Knollcrest Drive, Redding, CA 96002

Office: 530-224-4845

Fax 530-224-4857

Contact: Greg Cash

Direct line: 530-224-3208

Online spill reporting system: <http://ciwqs.waterboards.ca.gov>

Butte County Environmental Health

202 Mira Loma Drive, Oroville, CA 95965

Office: 530-522-3880

Contact: Danette York, Director

*Revised September 2021*

LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT

Phone Contact List

**DISTRICT OFFICE 530-533-2000**

Office Staff After- Hours Contact Numbers

NAME	PHONE	CELLULAR	EMAIL
SCOTT MCCUTCHEON	514-1641	520-2892	scottm@loapud.com
KELLY HAMBLIN	510-0198		kellyh@loapud.com
DARIN KAHALEKULU	403-6782		darink@loapud.com

Field Staff After-Hours Contact Numbers

NAME	PHONE	CELLULAR	EMAIL
VINCENT VICTORINO	636-3665	520-8309	<a href="mailto:VINCENTV@LOAPUD.COM">VINCENTV@LOAPUD.COM</a>
SHAWN PETERSON	693-0330	282-2844	<a href="mailto:SHAWN@LOAPUD.COM">SHAWN@LOAPUD.COM</a>
JOSH FREEMAN	966-3547	353-0341	<a href="mailto:JFREEMAN@LOAPUD.COM">JFREEMAN@LOAPUD.COM</a>
ROBERT BRODERSON	533-3845	701-1319	<a href="mailto:RBRODERSON@LOAPUD.COM">RBRODERSON@LOAPUD.COM</a>

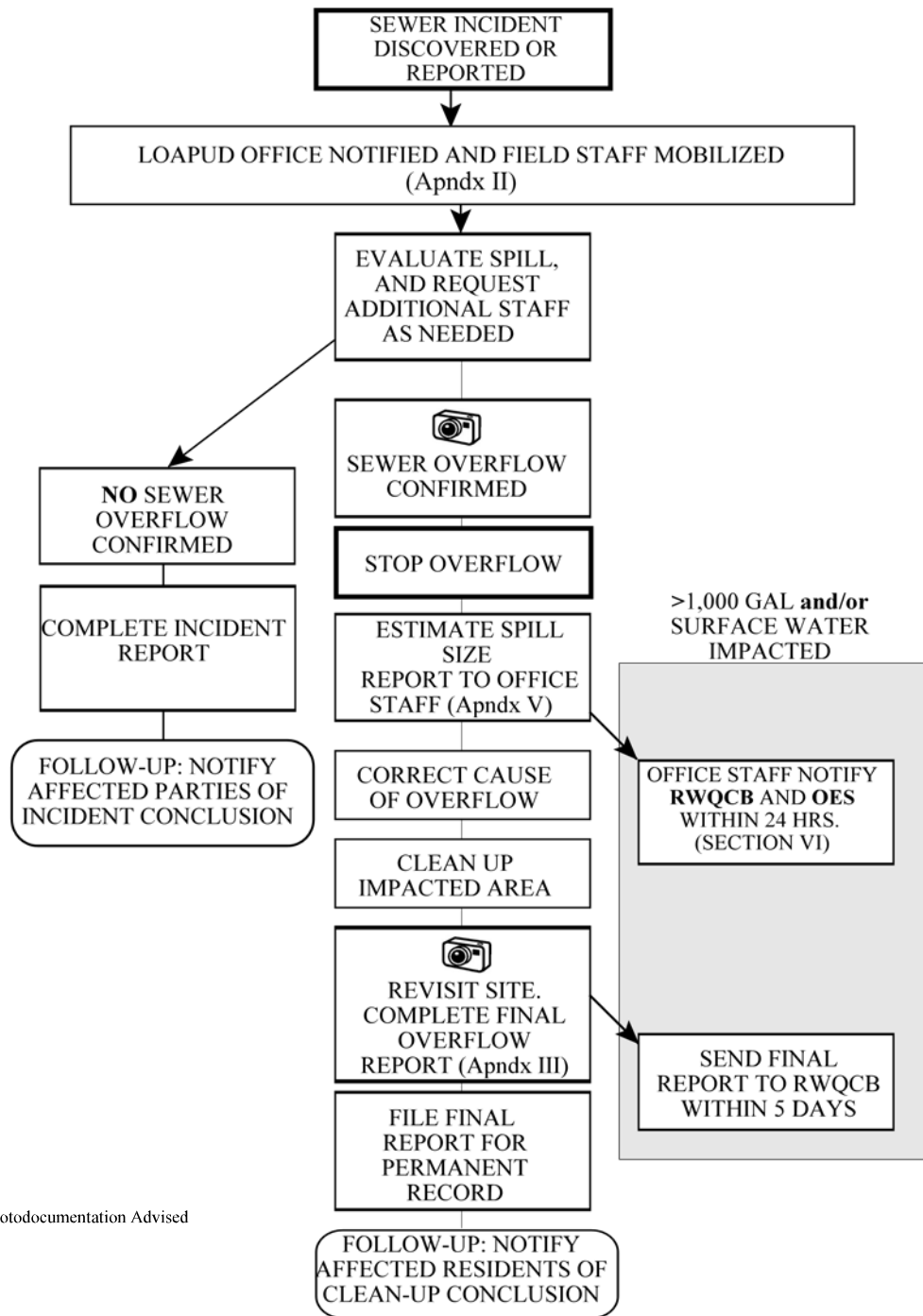
Regional Contacts


Agency	Phone
<b>Governor's Office of Emergency Services</b>	<b>800-852-7550</b>
<b>Regional Water Quality Control Board</b>	<b>530-224-3208 (Greg Cash)</b>
<b>Butte County Dept. of Environmental Health</b>	<b>530-538-7281</b>
SC-OR	530-534-0353
Thermalito Water and Sewer District	530-533-0740
Butte County Office of Emergency Services	530-538-7373
City of Oroville Public Works	530-538-2420
Butte County Dept. Of Public Works	530-538-7681
California Dept. Fish & Game	916-358-2900

**Any Category 1 SSO must be reported to the Governor's Office of Emergency Services, the RWQCB and Butte County Dept. Environmental. Health as per Section VII.** Other contacts shall be made as appropriate given the nature and extent of the SSO.

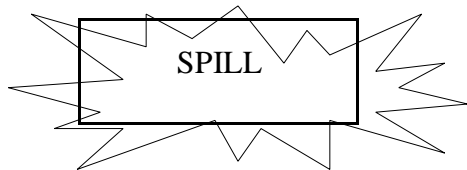
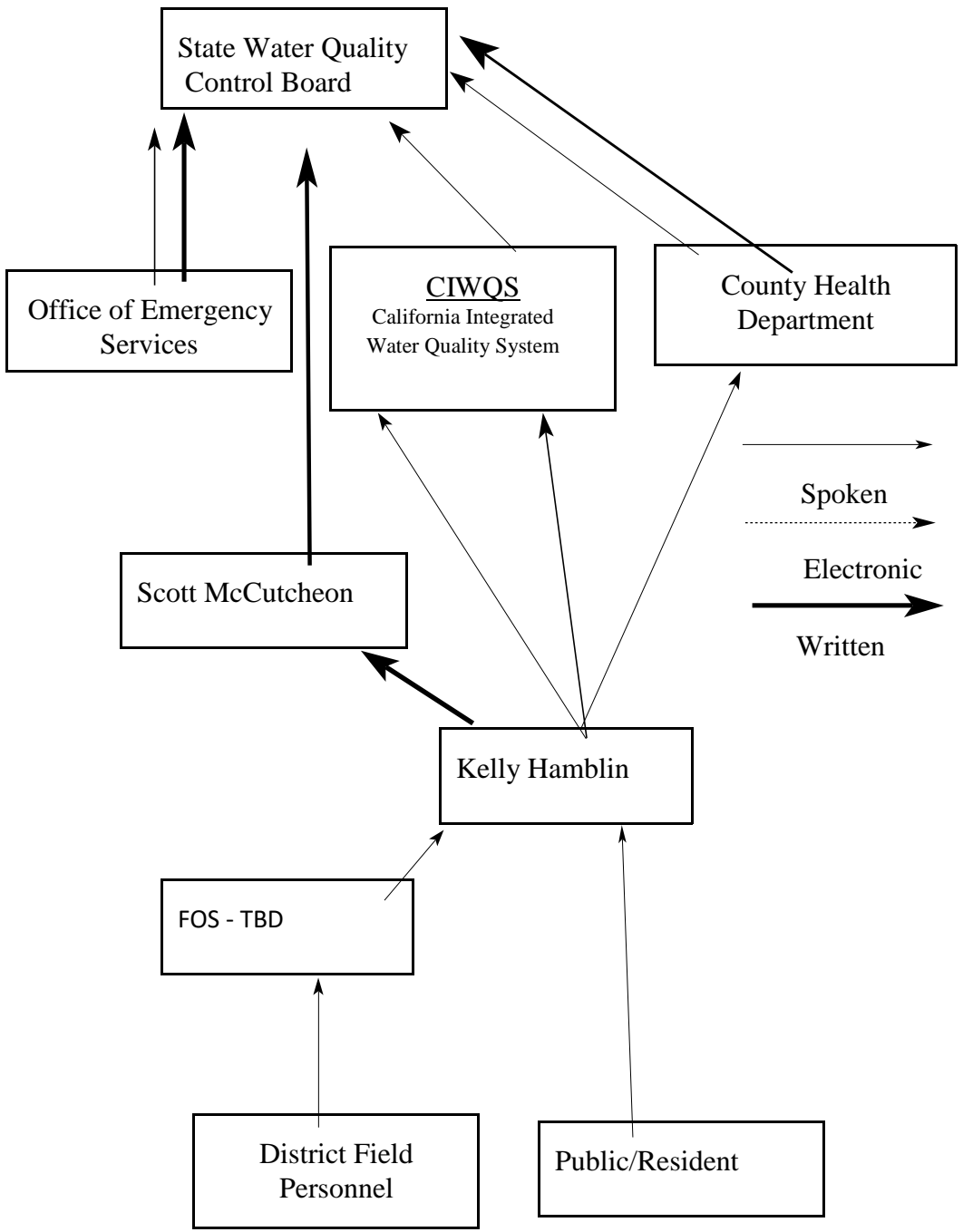
*Revised December 2020*

**SPILL RESPONSE FLOW CHART**



 Photodocumentation Advised

## SPILL REPORTING CHAIN OF COMMUNICATION



**SECTION III - LEGAL AUTHORITY**

## SECTION III LEGAL AUTHORITY

Lake Oroville Area Public Utility District was formed and operates under the Public Utility District Act, Statutes of 1921 of the California Public Utility Code. A five-member Board of Directors, elected at large by the District's voters, is responsible for setting policy and general administrative procedures for the District. The policies and procedures set by the Board are administered by the District General Manager.

The LOAPUD Board of Directors has adopted numerous policies and ordinances governing the operation of this utility. The LOAPUD Manual of Board Policies includes adopted Policy # 3065, SEWER USE REGULATIONS, (adopted January 11, 1989 and amended June 14, 2005) regarding the use of public sewers within Lake Oroville Area Public Utility District. This Policy specifically:

- Prohibits illicit discharges to the system (Section 5.1 - 5.8);
- Requires that the system is properly constructed (Section 4.1 - 4.8);
- Ensures access to system elements for inspection and maintenance (Section 4.4);
- Limits the discharge of Fats, Oils and Grease (FOG) (Section 5.2 - 5.4); and
- Enforces any violation of these elements (Section 7.1 - 7.5)

LOAPUD has adopted and may continue to adopt additional ordinances, policies, agreements, and procedures that further define their legal authority in these areas and provide more detailed guidelines and/or requirements specific to these issues.

## SECTION IV – SEWER OPERATIONS AND MAINTENANCE PLAN

**LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT**

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**SEWER OPERATIONS  
AND MAINTENANCE PLAN**

**SEPTEMBER 2021**

Prepared by:

**Sauers Engineering, Inc.**  
105 Providence Mine Road, Suite 202  
Nevada City, CA 95959  
(530)-265-8021

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Lake Oroville Area Public Utility District  
**SEWER OPERATIONS AND MAINTENANCE PLAN**

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## **I. INTRODUCTION AND AUTHORITY**

Lake Oroville Area Public Utility District (LOAPUD or the District) owns and operates a sanitary sewer collection system serving over 8,457 acres of unincorporated area east and south of the City of Oroville in Butte County, California. This **Sewer Operations and Maintenance Plan** details the O&M practices for the collection system as required by the State of California and detailed in the State Water Resources Control Board Order # 2006-0003 DWQ Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. This plan describes the District's program for the organizational and physical management and maintenance of the collection system. It is one element in the District's comprehensive Sewer System Management Plan (SSMP) which also includes a Sewer Overflow Prevention and Response Plan, a Fats, Oils and Grease (FOG) Control Plan, and a Sewer System Master Plan.

## **II. GENERAL INFORMATION**

LOAPUD's collection system includes over 77 miles of pipelines, 1,550 manholes, and nine (9) lift stations. The system serves approximately 4,500 customers. These include single and multi-family dwellings as well as commercial and industrial services, totaling an estimated 6,160 equivalent dwelling units (EDU).

The LOAPUD collection system discharges to a regional treatment facility owned and operated by the Sewerage Commission - Oroville Region (SC-OR) which is a joint-powers authority with LOAPUD as a member, along with the City of Oroville and Thermalito Water and Sewer District.

## **III. PLAN OBJECTIVES**

The primary objective of this plan is to define the District's operations and maintenance practices for the proper stewardship of the collection system. In addition, this Sewer Operations and Maintenance Plan specifically addresses the requirements of the Statewide General Permit for an operation and maintenance program:

- Maintain up-to-date mapping of the sewer collection system showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves;
- Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. Include tracking documents such as work orders;

- Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
- Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and
- Provide equipment and replacement part inventories, including identification of critical replacement parts.

#### **IV. ORGANIZATIONAL STRUCTURE AND PERSONNEL**

##### **A. District Organizational Structure**

Lake Oroville Area Public Utility District was formed and operates under the Public Utility District Act, Statutes of 1921 of the California Public Utility Code. A five-member board, elected by the District's voters at large, is responsible for setting policy and general administrative procedures.

The policies and procedures are administered by the District General Manager. The General Manager oversees the District staff and consultants. He is also responsible for providing the Board members with information on the status of the District and its assets.

District staff includes office staff and field operations staff. Office staff functions include dispatch of field staff, maintenance and spill documentation, billing and accounting, public record requests and announcements, regulatory compliance, customer service and provision of information to the Board, via the General Manager. Field operations staff are responsible for the physical operations and maintenance of the District's infrastructure, including inspection, performing preventive maintenance, cleaning, and repairs.

Consultants working at the prerogative of the Board and under the direction of the General Manager include engineering consultants and legal consultants on an on-going basis. Other professional services may be contracted for in a similar manner on an as-needed basis. Outside contractors may also be retained at the discretion of the Board and under direction of the General Manager for large construction projects.

## B. Internal Communication

LOAPUD's internal written communication includes but is not limited to:

- Work Orders, typically generated by the office staff and directed to the field crews detailing necessary maintenance activities;
- Job Reports, executed by the field staff and returned to the office staff for follow up and or record keeping;
- Memorandums between the General Manager, the office staff, and the field crews;
- Board Packages, prepared by the General Manager and office staff to provide information to the Board of Directors;
- Information, memorandums and reports generated by the District's consultants and delivered to the General Manager.

In addition to written communication, staff communicates "in-house" by way of cellular telephone, e-mail, staff meetings, and verbal communication.

## C. Personnel Training

The District provides all new employees with an orientation program including completing an "Employee Safety Orientation Checklist." The District is subject to all of the rules and regulations of Cal OSHA. The District requires that all employees receive OSHA required training that is related to their job description. In the case of pump and lift station maintenance, this training includes confined space entry, CPR, first aid and emergency response. All employees are encouraged to obtain additional job related training as it is available, and/or as required in the industry.

Worker and public safety is of utmost importance in the wastewater field. Safety and emergency equipment is accessible and in adequate supply for field employees, including:

- rubber / disposable gloves;
- hard hats, safety glasses, rubber boots;
- protective clothing;
- anti-bacterial soap and first aid kit;
- tripods and non-entry rescue equipment;
- fire extinguishers;
- equipment to enter manholes;
- portable crane / hoist;
- atmospheric testing equipment and gas detectors;
- confined space ventilation equipment;
- H<sub>2</sub>S monitors;
- full body harness;
- traffic / public access control equipment; and
- Lower Explosion Limit (LEL) meters.

Employees are trained in the use and applicability of this equipment.

## **V. SEWER SYSTEM MAINTENANCE PROCEDURES**

### **A. Preventive Maintenance Program**

The District has established this program for the routine and response-related operations and maintenance activities. Routine activities include system inspection, cleaning and routine maintenance as detailed in Sections V.B.1, V.B.2, V.B.4, V.C and V.D. These activities, as well as wet weather preparation activities, are routine in nature and follow scheduling as noted.

Response-related activities include emergency sewer overflow response, response to system problems reported to the District by customers and/or the public, and repairs and/or rehabilitation in response to collection system problems noted in system inspections and investigations by field crews, as well as equipment repair or replacement as needed.

LOAPUD utilizes a system of Work Orders and Job Reports to schedule and track both routine and response-related work. A copy of a blank Work Order and a blank Job Report is included in the Appendix of this plan.

### **B. Maintenance Activities**

#### **1. Collection System Inspection**

Collection system inspection includes the routine and response-related inspection, investigation and testing of the collection system components including gravity sewer pipes, manholes, and force mains. Inspection activities not only enable proactive maintenance, but are critical in investigation and analysis of Infiltration and Inflow (I&I).

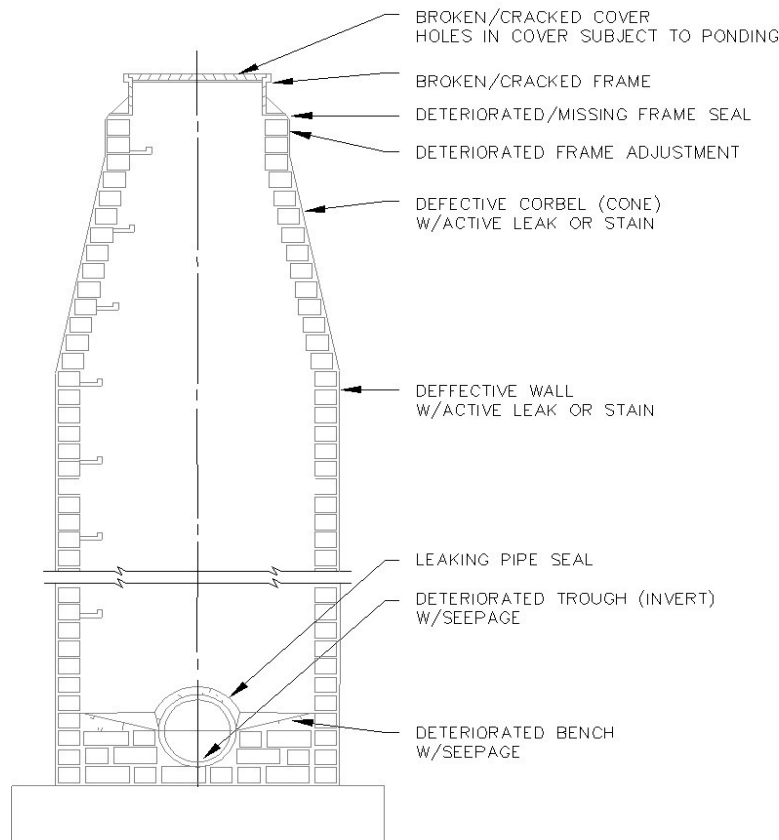
Inspection techniques include visual inspection, cameras, and Closed-Circuit Television (CCTV). CCTV inspections are the most comprehensive and cost efficient method to inspect the internal condition of sewer pipes 4" and larger. The CCTV camera is assembled to keep the lens as close as possible to the center of the pipe. In larger sewers, the camera and lights are attached to a raft, which is floated through the sewer from one manhole to the next. To see details of the sewer walls, the camera and lights swivel both vertically and horizontally. In smaller sewers, the cable and camera are attached to a sled, to which a drogue is attached and flows from one manhole to the next. Documentation of inspections is very critical to a successful operation and maintenance program. CCTV inspections produce a video record of the inspection that can be used for future reference to prioritize rehabilitation projects and to assess corrective actions.

Visual inspections are important and can be noted in Job Reports and incorporated support other inspection techniques.

Infiltration and Inflow (I&I) investigation of the collection system specifically targets pathways for surface water, groundwater and storm water to improperly enter the sanitary sewer system. It may include CCTV and visual inspections as described above, as well as the following specific techniques:

Manhole Inspections:

Manhole inspection includes an inspection of every component of each manhole structure. These components and possible causes of I&I intrusion are shown below. Proper safety procedures, following OSHA regulations for confined-space entry, must be followed. During the inspection, a quick check of the pipe conditions entering and exiting the manholes can be achieved by simply lamping these pipes. Supplemental photographs or video recordings can be included if there are particular defects or rehabilitation requirements that merit further analysis.



Note: brick manholes are no longer in use in system.

## Smoke Testing:

Smoke testing is an effective and economical method of locating major sources of I&I such as storm drainage connections, curb inlets, and area drains. The smoke testing program includes:

- Using high-capacity smoke blowers (>3,500 cfm);
- Isolating individual sewer lines, when possible;
- Informing and educating the affected customers;
- Testing during periods of dry weather; and
- Carefully documenting all identified defects (photographs or video recording).

Smoke testing not only identifies sources of I&I, but it is an effective technique for locating structural defects such as collapsed, broken or cracked pipe and offset, separated, or deteriorated pipe joints. The District has conducted ongoing annual smoke testing and should conduct a once-through smoke testing program every 2 to 5 years.

In addition to I&I sources in the District's infrastructure, smoke testing will also locate I&I problems in private service laterals. This includes possible ways that rainfall runoff and groundwater can enter into the District's sewer system from private property. Most such connections violate current local plumbing codes and must be remedied by the private party.

## 2. Collection System Cleaning

The District recognizes that to maintain proper function, a sewer collection system needs regular scheduled cleaning. Some common causes of sanitary sewer overflows include grease blockages, root blockages, and debris blockages. Frequent system cleaning is preventive maintenance.

The District personnel routinely clean every gravity line in the collection system. Areas with few problems are cleaned on the regular maintenance schedule, while areas with known sags, root intrusion problems, or a history of grease or other problems are cleaned on a more frequent basis. Also, some areas with known wet weather problems are cleaned and inspected at the beginning and during the wet season as preventive maintenance.

District equipment for cleaning includes multiple jet-rodders with a variety of jetting and cutting heads that field crews are able to select from, depending upon pipe specifics. The tools and equipment allow personnel to properly clean lines of roots, greases, sediment, and accumulated solids and debris.

Equipment to allow for pipeline and manhole access, short term pipeline bypass, and traffic control as necessary are all available to the cleaning crews on an as-needed basis.

### 3. Repair and Rehabilitation

Where collection system elements are found to have structural problems, they are prioritized for repair, rehabilitation or replacement. Large rehabilitation and replacement projects are typically placed on the Capital Improvement Plan, and may be done with in-house resources or contracted out.

District field crews routinely repair, replace or rehabilitate smaller sections of pipe. This includes repairing or replacing stretches of pipeline that have structural defects, major root intrusion, misaligned or damaged joints, sags, or other problems. Crews also use their resources to respond to emergency line breaks, breaches or clogs with a combination of cleaning, repair, and/or replacement techniques.

In all cases where active sewer pipelines are involved, District field crews are trained and practice appropriate safety in traffic control, manhole access, sewer bypass, temporary power and pumping, trenching and trench safety, proper disposal of waste and wastewater, and proper construction and reconstruction processes.

### C. Lift Station Maintenance Practices

The LOAPUD collection system includes nine lift stations. The specific layout and equipment, including pumps, motors, valves, controls, alarms, ventilation, and stand-by power varies at each station, and field personnel keep a binder for each station that includes manufacturer's maintenance manuals and warranties specific to the equipment. In all cases, the manufacturer's specific recommendations shall override general maintenance guidelines provided in this operations and maintenance manual, so long as safety is the first priority.

This manual provides general lift station maintenance practices, most of which apply to all nine lift stations. Field personnel shall familiarize themselves with the specific manufacturer's recommended maintenance for equipment at each lift station, and shall use that information as appropriate. Maintaining equipment in accordance with manufacturer's recommendation may be required to maintain effective coverage for warranties and guarantees for equipment performance, and logging and recording routine maintenance may be necessary.

Use equipment service cards/service record cards or lift station maintenance logs for record keeping of lift station maintenance practices. Following is a table of general lift station maintenance. Some items may not be applicable to every station.



- Building and Grounds Maintenance:

Weekly check of heating and ventilation systems

Weekly light cleaning

Weekly run standby generators

Quarterly complete cleaning

Annual check of grounds, fencing, outdoor maintenance

Annual check all back up batteries

Annual check of building roof, doors, windows for leakage or repairs

Annual check of electrical, plumbing and ventilation systems Annually check all safety equipment (fire extinguishers, first aid kits, etc.)

Elimination of rodents, pests, as needed.

- Sumps, wet wells and overflow storage structures:

Weekly check for grease or solids buildup or debris.

Annually drain and clean during low flow period, re-coat or patch as necessary.

- Pumps

**Prior to any direct maintenance, pumps and motors shall be disconnected from electrical supply, and field staff shall observe all safety and Cal OSHA requirements.**

Daily, record run times for pumps.

Daily, inspect for suction end blockages. Check suction and discharge operating pressures. A higher vacuum than normal may indicate a suction line blockage.

A low discharge pressure may indicate worn impeller or breakage in force main.

Daily, check motor temperature and pump bearing temperature.

Daily, listen or feel for unusual noises or vibrations.

Daily, check for proper guards and safety gear.

Daily, check for leakage on packing glands.

Weekly, operate pumps alternately.

Weekly, check mechanical seals for leakage or excessive heat.

Weekly, inspect wearing rings, stuffing boxes, packing rings and seals as applicable, and replace when worn or damaged. For pumps with mechanical seals, inspect mechanical seals, o-rings, springs, and maintain as recommended by the manufacturer. Lubricate and check seals as recommended. Repair or replacement of mechanical seals requires that the pump be taken out of service for repair. Installation of new mechanical seals must be done by a qualified pump mechanic with the proper tools and supplies.

Monthly, or as manufacturer recommends, lubricate bearings. Drain old lubricant and dispose of properly and add fresh lubricant as recommended.

Annually, as a minimum, or more frequently as manufacturer recommends or any time unusual noise, wear or vibration are noted, check the alignment between pump and motor, realign as necessary, tighten any flange connections. Annually inspect suction line for alignment, eliminate any potential for air pockets.

Annually check all piping supports for wear, corrosion or settling. Pipes should be supported externally, and not bearing weight on pump casing.

## TESCO EMASS

After pump maintenance, properly prime pumps as needed prior to placing back in service. This may require manual venting of casing and operation of discharge valving.

**If pump is to be left off-line for maintenance, open motor breaker switch, lock out and tag, with reason for out-of-service.**

Never operate a pump in dry conditions.

- Motors

Daily, keep motors clean and free of dirt and grease.

Daily, note any unusual noises, smells or vibrations. Annually, verify that motor nameplate data is current in maintenance log.

Annually, lubricate pump motors and inspect for wear or age related problems.

Annually, clean and dry motor electrical connections and tighten any loose connections. Inspect and tighten hold-down bolts if applicable.

If motors are variable speed, they require additional maintenance for slip rings and bushes. Refer to manufacturer's recommendations. Failure to perform increased maintenance on variable speed drive motors may cause premature failure.

- Valves

Weekly, manually stop pumps. Check valves should close smoothly and completely without slamming. There should be no leakage in check valve.

Monthly, manually operate all valves to ensure proper range of motion.

Most centrifugal pumps may be started against a closed discharge valve to develop prime. The valve should be slowly opened. **Positive displacement pumps should never operate against a closed discharge valve. Do not operate any pump with suction valve closed.**

Annually, inspect valve packing, stems, seals, nuts, seats, and lubricate or replace parts as needed. Clean and paint valves if applicable. If valves are in vaults, clean vaults.

- Electrical controls

Daily, check that motor control is in "Automatic" position.

Weekly, manually check float switch performance. Inspect bubbler, electrode or diaphragm type level controls and clean off scum as needed. Purge bubbler tube if needed.

Weekly, check for appropriate motor response to each level condition.

Weekly activate “stop” switch and motor “lock out” switch if applicable. Motors should wind down slowly. After stopping, check that no back-spinning occurs.

Weekly, check all alarm conditions and autodialer, telemetry or SCADA as applicable.

Quarterly, change lead and lag pump designations if applicable. Quarterly, service and calibrate all instrumentation, such as flow meters, level sensors, and alarms.

- Electrical Systems

**For any modifications, maintenance or repair of electrical systems, a qualified electrician shall be employed. Field staff shall be adequately trained in recognizing electrical hazards and calling on qualified commercial electricians for service.**

Annually, all electrical equipment should be inspected for wear, corrosion, integrity and cleanliness. All control equipment should

perform as designed. All fuses and circuit breakers should be functional and properly sized. Electrical systems may be damaged by water, dust, heat, cold, humidity and corrosive conditions.

Enclosures shall be dry-method cleaned.

Annually, an electrician should inspect the system for integrity, current imbalances, loose contacts, overheating and corrosion. Annually electric safety systems and protective devices shall be inspected.

- Auxiliary Power

All generators and transfer switches are tested weekly under applicable loads as allowed by Butte County Air Quality

Management District permit. Keep units clean and check fuel level and freshness. In the case of diesel generators, consider need to replace fuel prior to fuel aging.

#### D. STEP Systems

1. General - A large number of residences (approximately 304) in the area known as Villa Verona are connected to the LOAPUD collection system through Septic Tank Effluent Pump (STEP) systems. These operate much like standard septic systems, some tanks flow by gravity and others pump partially treated effluent to the sewer collection system rather than to an onsite leach field. While these systems significantly reduce the strength of wastewater entering the collection

system, they require an increased maintenance responsibility for the District and a somewhat higher potential for mechanical failure and spillage. As with standard septic tank systems, STEP systems require regular pumping and occasional inspection for system integrity.

2. Individual STEP System Maintenance - All individual Septic Tank Effluent Pump (STEP) systems are serviced according to the manufacturer's recommendations at least once every 5 years. Specific problems or homeowner requests may increase this frequency to protect the system and to protect public health. Routine (5 year) maintenance procedures of the STEP systems include the following:
  - (a) General system inspection;
  - (b) Pump and inspect the septic tank; (c) Remove and clean the biofilter;
  - (d) Replace the biofilter, if necessary;
  - (e) Clean and inspect pump(s) - rebuild, or replace as necessary; and (f) Clean and disinfect the area around the STEP system.
3. Specific STEP Collection System Maintenance - The STEP collection system generally consists of individual service laterals, (most of which are pressure lines, but some are gravity), discharging to a common 3" or 4" main that includes clean-outs and vacuum-air release valves. The mains discharge into gravity sewers at manholes. Due to variable hydraulics in the mains, air is able to enter the system from the discharge points. Ongoing maintenance is required to alleviate hydraulic problems caused by air in the system. This includes air release valve monitoring and maintenance and line valve maintenance.

#### Air Release Valve Monitoring/Maintenance

Monitoring air release valves requires routine visits to the Air Release Valve (ARV) location. All valves, automatic and manual, should be vented manually and the conditions reported using one of the five conditions tabulated below. Depending on the type of valve and elevation relative to the energy grade line, conditions (1) and (5) are ideal.

1. No air — effluent only
2. Minor air — small bubbles
3. Continuous air — large air pockets (1 minute or more)
4. Vacuum — air drawn into the system
5. Passive — no air, vacuum, or effluent

Condition 1, no air — effluent only, is representative of those air release locations below static or energy grade lines (refer to as-built drawing for relative elevations) where no air or gas is accumulating or where the accumulation is being properly released by an automatic ARV.

Condition 2, minor air can usually be expected where an adequately monitored manual ARV is located.

Condition 3, continuous air — large pockets of air, indicates excessive accumulation of gas or air. The problem may indicate (a) insufficient monitoring of a manual ARV, (b) the need to convert the location to an Automatic ARV (AARV), or, (c) if the station has an AARV, a mechanical malfunction of the valve. An AARV should be bled by opening the blowoff valve beneath the AARV body. This process should be repeated for two additional days. If air continues to escape after several days of manual bleeding, the AARV should be replaced or repaired.

Condition 4, vacuum indicates that siphoning is occurring. Locations that are subject to siphoning are those with elevations above the energy grade line (refer to as-built drawings). These are usually at the beginning of gravity sections, e.g. the top of standpipes, and should always be handled with AARVs. Condition 4 may be the result of an AARV with a plugged orifice or mechanical apparatus that is frozen shut. In either case, movement of air back into the system is restricted and repair or cleaning of the mechanism is required. If condition 4 is encountered at a AARV location, it indicates a drop in pressure and the need for a check of downstream hydraulic pressures.

Condition 5, passive, is typical of AARV locations that are above the static or energy grade lines and at which air is being properly expelled.

### Valve Maintenance

Valve exercising should not be scheduled when high flows are expected, during heavy rainfall. Avoid exercising valves near the end of the day; if a valve sticks closed, repair is much more convenient in the daylight. Begin the exercising procedure at the most remote locations, so as to gain experience where fewer homes would be affected by a stuck valve. Ensure that all valve locations are accessible and clean of gravel, asphalt, weeds, or brush. During an emergency, quick access is advantageous.

When exercising valves at clean outs, the clean out must be secured to avoid sewage spills. Caution should be used in securing pressure caps, since excessive line pressure may blow an improperly secured cap loose.

Bypass valves located at the standpipes are critical to system hydraulics and should be exercised only when other standpipe repair work is in progress.

To maintain a system's integrity, all valves should be returned to their original position, whether open or closed. Maintenance personnel should make certain that nothing is lodged under a valve that is normally closed. Such an obstruction could cause a drop in the system's normal pressure level that might cause air, siphoning, and other problems.

## **VI. EQUIPMENT INVENTORIES**

LOAPUD keeps current inventories of all major equipment for both maintenance and accounting purposes. A current list of capital equipment (trucks, trailers, backhoes, rodders, trailer mounted pumps, etc.) is provided in Appendix A.2. This list does not include incidental tools and accessories.

The Field Supervisor is responsible for tracking inventories of materials. These include pipes, hoses, spare and replacement mechanical parts, lubricants, fuels, etc. The Field Supervisor is responsible for assuring that critical replacement parts are either available in-house, readily available within a 2 to 4 hour period, or that adequate redundant or bypass facilities can be employed to avoid a sewage overflow during the repair or replacement of a critical system element.

## **VII. INFORMATION MANAGEMENT**

### **A. Mapping**

LOAPUD has a detailed collection system map consisting of a cover and index sheet, the collection system showing parcels, pipes, manholes and lift stations, plotted at a scale of 1" = 200'. The 17 sheet system map also includes a table detailing the lengths and slopes of the main trunk line. In addition to the overall system map, the District maintains files of "as-built" drawings for most of the existing infrastructure. As-built or Record Drawings are required for all new construction and reconstruction in the system.

The District has developed a Geographical Information System (GIS) map of the District's collection system utilizing Global Positioning System (GPS) survey equipment. The GIS map, which is available to view online, includes the District's service area boundary, sphere of influence, and individual parcels, along with collection system pipelines and manholes, sewer lift stations, and STEP system tanks, pumps, and pipelines. The GIS map is constantly being updated and refined as District crews continue surveying activities as part of their normal operation and maintenance activities. The collection system map can be viewed at:

<http://maps.loapud.com/>

### **B. Record Keeping**

LOAPUD's infrastructure record keeping includes records of Sewer Overflow Reports, maintenance of the collection system map, maintenance logs for lift stations and equipment, Work Orders and Job Reports. Files are maintained for all contracted construction projects, including Record Drawings and information on the infrastructure and equipment installed. Files are also maintained on improvement projects done with in-house resources.

Office staff keeps financial records and accounting records on file as necessary for tax and legal purposes. This includes information on infrastructure and equipment, financial records on improvement projects, records on funding programs, and information to support financial applications. Customer account records are maintained as well.

### C. Rehabilitation and Replacement Plan

LOAPUD, as steward of the collection system infrastructure, has continued to reinvest in the system through the systematic rehabilitation, expansion and replacement of infrastructure.

Through a thorough combination of ongoing CCTV (since 1995) and other inspection processes, maintenance records, overflow incident records, and master-planning based on anticipated growth trends, LOAPUD has identified portions of the system that:

- Have insufficient hydraulic capacity to meet present or future flow;
- Are “bottle-necks” in the system, routinely causing up-stream manhole surcharging;
- Include flat, near flat, and sagging portions of pipeline; and
- Have increased maintenance needs due to system hydraulics or geometry.

For every element of the system that has been identified as being problematic, the District has evaluated whether capital improvements are necessary or whether the area in question is to be targeted for increased maintenance. For instance, if a bottleneck in the system causes upstream surcharging and is insufficient for future hydraulic capacity, then a capital improvement project up-sizing this element is necessary. For a relatively flat area with no major structural problems, but higher incidents of clogging, increased cleaning and jetting frequency may be necessary.

Every year the District has allocated capital resources to target problem areas, with a typical annual capital improvement budget of \$200,000 - \$300,000. The vast majority of identified problems in the system were targeted in a \$5,000,000 improvement program in the years 2006 - 2007, funded through USDA’s Rural Development Program. The projects included in this program were the Stateline Rehabilitation Project, the Oak Knoll Bypass, and the Kelly Ridge Bypass project. In addition, in acquiring three (3) lift stations previously owned and operated by the State of California, LOAPUD improved the reliability and overflow capacity of these three lift stations to prevent future sewer overflows.

Due to the relatively small size of the District, the identification of projects for each capital improvement cycle is done informally and in-house, taking into account the hydraulic analyses done in master planning, the maintenance requirements of particular areas as identified by the Field Supervisor, and records of sewer overflows or other documented problems.

## APPENDIX

Appendix 1 Sewer System Map

Appendix 2 Equipment List

Appendix 3 Work Orders and Job Reports



## Appendix 1 SEWER SYSTEM MAP

LOAPUDs Sewer System Map is a 17 sheet collection of 24" x 36" drawings of the system available at the District Office.

The District has also developed a Geographical Information System (GIS) map of the District's collection system utilizing Global Positioning System (GPS) survey equipment. The GIS map includes the District's service area boundary, sphere of influence, and individual parcels, along with collection system pipelines and manholes, sewer lift stations, and STEP system tanks, pumps, and pipelines. The GIS map is constantly being updated and refined as District crews continue surveying activities as part of their normal operation and maintenance activities. The collection system map can be viewed at:

<http://maps.loapud.com/>

## Appendix 2 EQUIPMENT LIST

1. 2008 FORD EXPLORER
2. 2010 FORD F-150
3. 1999 FORD F-450 FLATBED DUMP
4. 1996 FORD F-350 7.5L
5. 1996 FORD F-150 FUEL TRUCK
6. 2004 STERLING JETRODDER
7. 2012 PETERBUILT PUMP TRUCK FORMERLY
8. 1998 BOBCAT X331
9. 1994 FORD ECONOLINE CAMERA VAN
10. 1988 CASE 580 SUPER K BACKHOE
11. 2007 PETERBUILT DUMP
12. 1993 FORD F-800 PUMP TRUCK
13. 1992 ATLAS PORTABLE COMPRESSOR
14. 2002 PORTABLE GODWIN PUMP
15. 1983 JETRODDER (BACK UP)
16. 2000 JOHN DEERE 410 BACKHOE
17. EASMENT MACHINE (DRIVES ITSELF BUT CONNECTS TO JETRODDER FOR WATER SUPPLY)
18. 2003 GORMAN RUPP PORTABLE PUMP
19. RODDING MACHINE (TRAILER MOUNTED SNAKE)
20. 1992 CASE TENCHER
21. 1970 JOHN DEERE 644A LOADER
22. 2006 KABELCO EXCAVATOR
23. 2019 FORD F-350 DUALY
24. 2019 FORD TRANSIT CCTV VAN
25. ROYAL OAKS GENERATOR
26. HANGING TREE GENERATOR
27. MOORETOWN GENERATOR
28. WINCO PORTABLE GENERATOR
29. ONAN GENERATOR

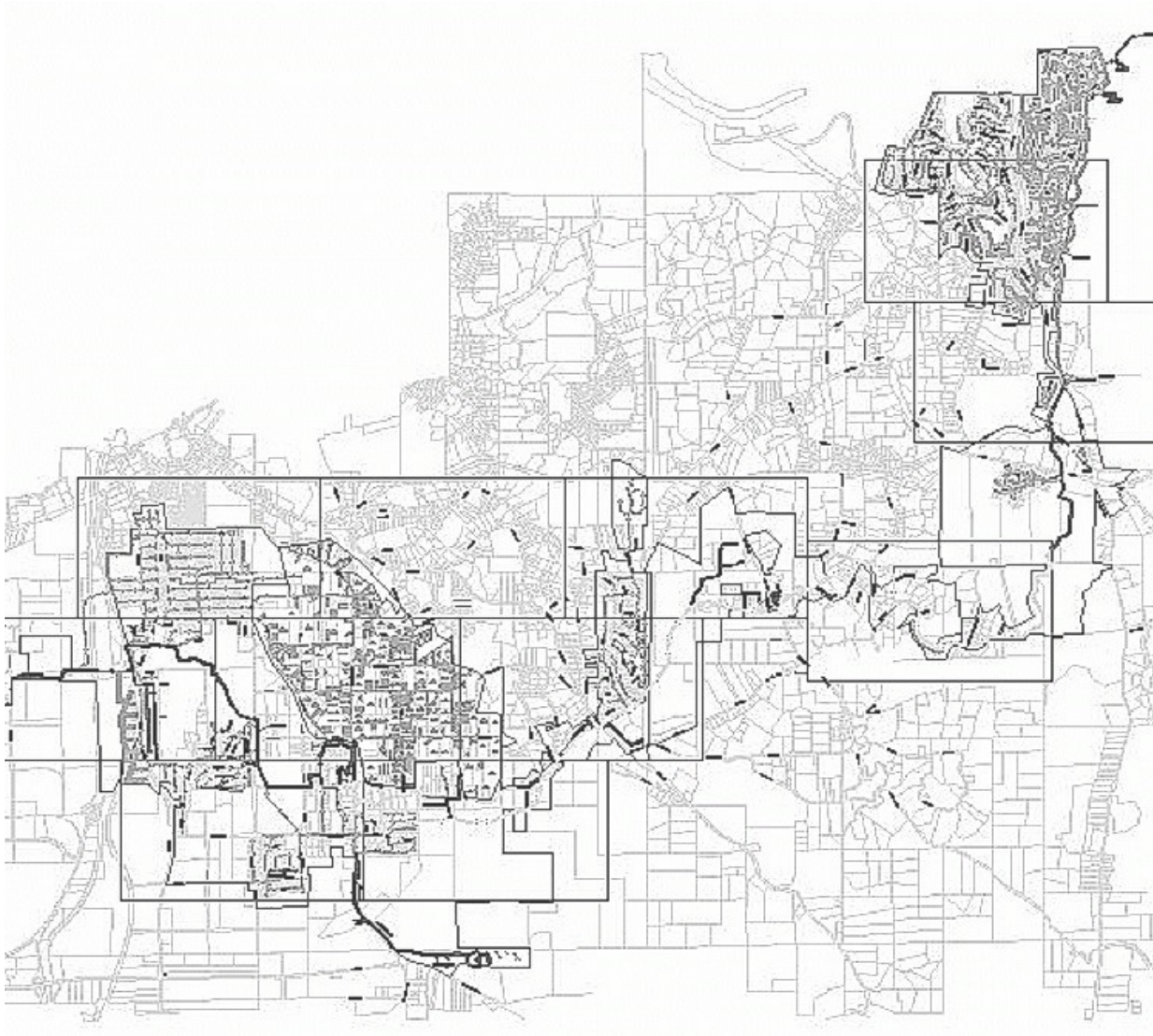
## Appendix 3 WORK ORDERS AND JOB REPORTS

# Incident Response Work Order (Front)

No.

Time	Date
Incident Location	
Incident Description	
Caller contact information:	
Name	Phone
Address	
Caller observations (e.g., odor, duration, location on property)	
Additional Information	

## Incident Response Work Order (Back)



Circle approximate incident location on map.

Additional Information:

## Inspection

<b>AP NUMBER</b>	035-197-004	<b>Date</b>	11/24/2020 11:29
<b>Direction</b>	Upstream	<b>Pipe Type</b>	ABS
<b>Pipe Size</b>	4	<b>STREET ADDRESS</b>	4040 FAUNCE WAY
<b>DISTANCE</b>	123.7	<b>LATERAL POSTION</b>	9 O'CLOCK (LEFT)
<b>End ID</b>	E11 TO E12(LAMPHOLE)	<b>Completed</b>	Yes

### Comments

## Inspection 2

**Length Surveyed** LEVI TOMLINSON

Created with the  report generator

# AP NUMBER: 035-197-004

Date: 11/24/2020

Asset ID:

11:29:00 AM

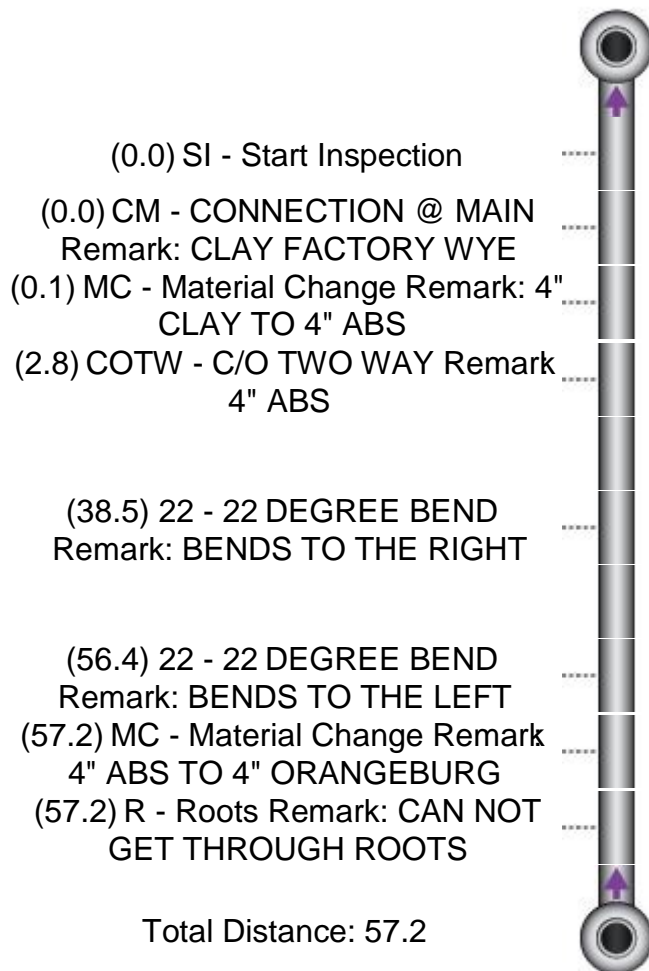
Asset Location: Start ID: Length Surveyed: 57.2 End ID:

Created with the  report generator

Severity
Light-1
Moderate-2
Average-3
Heavy-4
Severe-5

Run Number:  
Pipe Size: 4

Direction: Upstream  
Pipe Type: ABS



ID Number:

PIPE IS IN BAD SHAPE AND NEEDS TO BE REPLACED WITH AN ACCEPTABLE PIPE-DWS

ID Number:

# LOAP DAILY JOB REPORT DATE: 11-1-20

**J.H.A.**

TASK	P.S. INSPECTION, LOCATES, LINE CLEANING, FUEL AND OIL EXPOSURE.
HAZARDS	POOR AIR QUALITY, COVID-19, OVERHEATING, DEHYDRATION, SMOKE INHALATION, CONTACT WITH SEWAGE, OPEN UNCONFINED SPACES (MANHOLES), CHEMICAL CONTACT
CONTROLS	WEAR SURGICAL MASKS WHEN 6' DISTANCE CANNOT BE KEPT, N95 MASKS AS NEEDED FOR SMOKE, WEAR GLOVES AND EYE PROTECTION AS NEEDED, DRINK PLENTY OF LIQUID, TAKE BREAKS AS NEEDED, MANHOLE COVERS SAFETY DEVICE.
P.P.E.	RUBBER GLOVES, SURGICAL MASKS, N95 MASKS, SAFETY GLASSES.

## JOB # JOB DESCRIPTION

## HOURS

	<b>ROBERT BRODERSON (UTILITY WORKER 2) ID: O.H. 12-17-15</b>	4
	<b>SHAWNAINSLIE (UTILITY WORKER) ID: O.H. 10-19-2020</b>	4
		0
	<b>TYLER CHRISTENSEN (FOREMAN) ID: O.H. 10-1-2020</b>	
		0
	<b>LEVITOMLINSON (UTILITY WORKER 2) ID: O.H. 8-3-2015</b>	
		0
	<b>SANDERS (SUPERVISOR) ID: O.H. 3-19-2001</b>	
		0



## **SECTION V - DESIGN & PERFORMANCE STANDARDS**

## SECTION V DESIGN AND PERFORMANCE PROVISIONS

Lake Oroville Area Public Utility District has adopted Board Policy No. 6010 DEVELOPMENT IMPROVEMENT STANDARDS (adopted February 1980, amended December 2011) which regulates and guides the design and construction of sanitary sewer facilities within the District by way of Improvement Standards and Standard Details.

The District has adopted the LOAPUD Sewer Improvement Standards and Standard Details including design and construction standards and specifications for installation of new sewer system elements and repair of existing facilities and procedures for inspection and testing of new or repaired facilities.

The District's Improvement Standards are available online at:

[https://www.loapud.com/files/d1482b330/improvement\\_standards\\_approved\\_12-132011.pdf](https://www.loapud.com/files/d1482b330/improvement_standards_approved_12-132011.pdf)

The District's Standard Details are available online at:

[https://www.loapud.com/files/6c4b9f667/standard\\_details\\_2011.pdf](https://www.loapud.com/files/6c4b9f667/standard_details_2011.pdf)

Additionally, the District has adopted RULES, REGULATIONS, RATES AND CHARGES GOVERNING THE USE, OPERATION AND MANAGEMENT OF THE DISTRICT SEWER SYSTEM FACILITIES (adopted August 9, 2011, amended December 11, 2011) which regulates, among other topics:

- Section 4 Obtaining Sewer Service: Application and Permit Process
- Section 5 Specifications for Sewer Connection: Materials and Methods of Construction
- Section 6 Inspection, Testing and Maintenance Procedures
- Section 7 Discharges into Sewer System
- Section 8 Fats, Oil and Grease Control
- Section 9 Sand, Hydrocarbon-based Oils and Grease Control

The District's Rules, Regulations, Rates and Charges Governing the Use, Operation and Management of the District Sewer System Facilities can be found online at:

[https://www.loapud.com/files/47ab24e44/rules\\_n\\_regulations\\_final\\_adopted\\_12-132011.pdf](https://www.loapud.com/files/47ab24e44/rules_n_regulations_final_adopted_12-132011.pdf)

## **SECTION VI - OVERFLOW EMERGENCY RESPONSE PLAN**

LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT

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**SEWER OVERFLOW PREVENTION  
AND RESPONSE PLAN**

SEPTEMBER 2021

Prepared by:

**Sauers Engineering, Inc.**  
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Nevada City, CA 95959  
(530)-265-8021  
Lake Oroville Area Public Utility District

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**SEWER OVERFLOW PREVENTION  
AND RESPONSE PLAN**

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LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
SEWER OVERFLOW PREVENTION AND  
RESPONSE PLAN

DISTRICT DIRECTOR:

Sewer System Owner:

**Lake Oroville Area Public Utility District**

1960 Elgin Street

Oroville, CA 95966

[www.loapud.com](http://www.loapud.com)

Main Office:

tel. 530-533-2000

fax 530-533-1750

Contact Persons:

Scott McCutcheon

General Manager

Office: 530-533-2000

Cell: 530-520-2892

Kelly Hamblin

Communications Officer

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Office: 530-533-2000

Cell: 530-

Regulatory Agencies:

Governor's Office of Emergency Services 800-852-7550

California Regional Water Quality Control Board, Central Valley Region

415 Knollcrest Drive, Redding, CA 96002

Office: 530-224-4845 Fax 530-224-4857

Contact: Greg Cash

Direct line: 530-224-3208

Online spill reporting system: <http://ciwqs.waterboards.ca.gov>

Butte County Environmental Health

202 Mira Loma Drive, Oroville, CA 95965

Office: 530-522-3880

Contact: Danette York, Director

## I. AUTHORITY

Sauers Engineering, Inc. has been retained to prepare this updated Sewer Overflow Prevention and Response Plan (Plan). The Plan is designed to be consistent with the State Water Resources Control Board Order No. 2006-0003DWQ Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. The Order was adopted by the State Water Resources Control Board on May 2, 2006. This Sewer Overflow Prevention and Response Plan is one element in the overall Sewer System Management Plan that includes the Sewer Operations and Maintenance Plan, the Sewer System Master Plan and the Fats, Oils, and Grease Control Program.

## II. GENERAL BACKGROUND

The **prevention** portion of the Plan (Section IV) is designed to minimize the frequency and severity of collection system overflows through effective system management, operation, and maintenance practices. These include: regular system inspection, flow monitoring, and ongoing video surveillance.

The **response** portions of the Plan (Sections V, VI, and VII) are designed to ensure that every report of a confirmed sewage overflow is promptly addressed by the appropriate crews so that negative impacts to beneficial uses of surface waters and customer service can be minimized. The response portion of the plan also spells out the procedure by which spills are reported to regulatory authorities and the public.

The Plan further includes provisions to ensure safety in response and cleanup pursuant to the directions provided by the Butte County Environmental Health Department (BCEHD) and the Regional Water Quality Control Board. For purposes of this Plan, “confirmed sewage spill” is also sometimes referred to as “sewer overflow,” “overflow,” or “SO.”

The procedure to track the frequency and location of overflows by the District is also described in this Plan. Tracking form can be found in Appendix VI. The information collected and recorded through this tracking exercise, in addition to the regular video monitoring of the collection lines will help to modify, focus and improve ongoing maintenance operations.

### A. District Description

The Lake Oroville Area Public Utility District provides sanitary sewer collection services for the unincorporated area east and south of the City of Oroville in Butte County, California. The District’s boundary encompasses approximately 8,457 acres (13.2 square miles) ranging in elevation between approximately 200 feet and 1,000 feet above sea level.



The District provides service to approximately 4,500 customers. Customers include single and multiple family residences, a variety of commercial and industrial uses, and public facilities including schools and recreational facilities associated with nearby Lake Oroville. For purposes of record keeping and billing, the District converts non-residential customers to equivalent dwelling units (EDU). This adjusts larger wastewater customers to the equivalent number of residential customers which generate the same quantity of wastewater. The District currently serves approximately 6,160 EDU's and an estimated population of 12,000 people.

The District was known as the North Burbank Public Utility District when it formed in 1938. Until 1977, the District owned and operated a wastewater treatment plant providing treatment and disposal services in addition to collection. Treatment and disposal are now provided at a regional plant operated by the Sewerage Commission - Oroville Region (SCOR) which holds the NPDES permit for discharge to the Feather River.

## B. Objectives

The primary objective of the Plan is to clarify and formalize the District's procedures to avoid, prepare for, and respond to collection system spills. This completed plan provides guidance in system maintenance and situation response which will:

1. Protect public health and the quality of surface waters;
2. Satisfy Waste Discharge Requirements for sewage collection agencies; and
3. Minimize the risk of enforcement actions against Lake Oroville Area Public Utility District.

Additional benefits of the Plan are as follows:

- Provide appropriate customer service;
- Protect wastewater treatment plant and collection system personnel;
- Protect the collection system, wastewater treatment facilities, and all related equipment; and
- Protect private and public property beyond the collection and treatment facilities.

This plan shall not supersede existing emergency plans or standard operating procedures unless directed by the General Manager or overseeing regulatory agency.

### C. Definitions

1. **Sanitary Sewer Overflow:** A sanitary sewer overflow (SSO, spill, overflow, surcharge) is any overflow, spill, release, discharge or diversion of wastewater from a sanitary sewer system. SSOs include:
  - a. overflows or releases of wastewater that reach waters of the United States;
  - b. overflows or releases of wastewater that do not reach waters of the United States; and
  - c. wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.
2. **Maintenance:** Any reinvestment in an existing collection system in the form of cleaning, monitoring, inspection, rehabilitation, and relief.
3. **Water of the State:** Any surface or ground water, within the boundaries of California.
4. **Major Spill:** A spill greater than 1,000 gallons, or one that occurs where public contact is likely, regardless of size, or in a sensitive environment (e.g. wetlands, waterways, public access areas, or preserves).
5. **Minor Spill:** A spill that is unlikely to cause illness, damage to property, or otherwise impact the environment *and* is less than 1,000 gallons.

### III. LOAPUD Sanitary Sewer System Collection System Overview

#### A. Pipelines and Manholes

LOAPUD is responsible for the following collection system infrastructure:

TABLE 1 - LOAPUD COLLECTION SYSTEM COMPONENTS

Collection System Components	
Gravity Sewer	77 miles
Force Mains	4.5 miles
Pump Stations	9
Manholes	1,550
Individual STEP systems	304

## B. Villa Verona - Pumped “STEP” Systems

A large number of residences (approximately 304) in the Villa Verona Assessment District are connected to the LOAPUD collection system through Septic Tank Effluent Pump (STEP) systems. These operate much like standard septic systems, but discharge partially treated effluent to the sewer collection system rather than discharge to an onsite leach field. While these systems significantly reduce the strength of wastewater entering the collection system, they require an increased maintenance responsibility for the District and a somewhat higher potential for mechanical failure and spillage. As with standard septic tank systems, STEP tanks require regular pumping and occasional inspection for system integrity.

## C. Lift Stations

The Collection system relies on a series of pump stations to lift wastewater from low lying areas or over hills into the gravity mains that ultimately lead to the SC-OR treatment plant. The nine lift stations currently maintained and operated by LOAPUD are as follows:

- Royal Oaks Lift Station
- Hanging Tree Lift Station
- Heritage Lift Station
- Mooretown Lift Station
- Las Plumas Lift Station
- Vista Del Cerro Lift Station
- L-1 Lift Station
- L-2 Lift Station
- L-3 Lift Station

Table 2 on the following page presents the capacities and vital information for the LOAPUD maintained lift stations.

## D. System Map

The District has developed a Geographical Information System (GIS) map of the District’s collection system utilizing Global Positioning System (GPS) survey equipment. The GIS map, which is available to view online, includes the District’s service area boundary, sphere of influence, and individual parcels, along with collection system pipelines and manholes, sewer lift stations, and STEP system tanks, pumps, and pipelines. The GIS map is constantly being updated and refined as District crews continue surveying activities as part of their normal operation and maintenance activities. The collection system map can be viewed at:

<http://maps.loapud.com/>

**TABLE 2 - LOAPUD LIFT STATIONS**

<b>Royal Oaks Lift Station</b>
Location: Royal Oaks Dr. Capacity: 200 gpm Surface Elevation: 920' Pumps: 2 - Moyno 1GOHS1, 15 hp Wet Well Size: 1,500 gallon Lift: 96' Nearest Surface Water: 50'
<b>Heritage Lift Station</b>
Location: Rachel Drive Capacity: 130 gpm Surface Elevation: 840' Pumps: 2 - Peabody Barnes 4SEH-1002, 15 hp Wet Well Size: 1,000 gallons Lift: 22' Nearest Surface Water: 30'
<b>Las Plumas Lift Station</b>
Location: Las Plumas Ave. Capacity: 110 gpm Surface Elevation: 273' Pumps: 2 - Wemco Torque 3S2 submers. Wet Well Size: 1,500 gallons Lift: 11' Nearest Surface Water: 300'
<b>L-1 Lift Station</b>
Location: Bidwell Canyon Rd. Capacity: 335 gpm Surface Elevation: 938' Pumps: 2 - Gorman Rupp T3A3S-B/WW, 15 hp Wet Well Size: 4500 gal+ 11,000 O.F. Lift: 42' Nearest Surface Water: 100'
<b>L-3 Lift Station</b>
Location: Bidwell Canyon Rd. Capacity: 86 gpm Surface Elevation: 949' Pumps: 2 - FLYGT submers. NP3102, 6 hp Wet Well Size: 7050 gal + 7535 O.F. Lift: 81' Nearest Surface Water: 150'

<b>Hanging Tree Lift Station</b>
Location: Hanging Tree Ct. Capacity: 350 gpm Surface Elevation: 985' Pumps: 2 - Gorman Rupp T6A-B 88 hp Wet Well Size: 1,500 gallons Lift: 176' Nearest Surface Water: 5'
<b>Mooretown Lift Station</b>
Location: Lower Wyandotte Rd. Capacity: 325 gpm Surface Elevation: 245' Pumps: 2 - FLYGT NP3171 submersible 30 hp Wet Well Size: 1,500 gal + 16,000 O.F. Lift: 122' Nearest Surface Water: 10'
<b>Vista Del Cerro Lift Station</b>
Location: Vista Del Cerro Capacity: 300 gpm Surface Elevation: 253' Pumps: HYDR-O-MATIC #s RV4B & LV4B, 15 hp Wet Well Size: 1,500 gallons Lift: 36' Nearest Surface Water: 300'
<b>L-2 Lift Station</b>
Location: Bidwell Canyon Rd. Capacity: 447 gpm Surface Elevation: 936' Pumps: 2 - Gorman Rupp T6A3S-B/WW, 50 hp Wet Well Size: 7000 gal + 27000 O.F. Lift: 92' Nearest Surface Water: 150'

## IV. SPILL PREVENTION PROCEDURES

The District employs a vigorous preventative maintenance and surveillance program. The efforts are focused to minimize the number, severity and frequency of collection system overflows through the following activities:

### A. Video Monitoring Procedure

Closed circuit television inspection identifies defects in the sewer collection lines. Unstable sections caused by roots, cracks, displaced joints and intruding connections can be located before they lead to overflows or damaged infrastructure. The procedure also enables LOAPUD staff to keep accurate records and plan future preventative maintenance activities. The monitoring equipment allows for approximately 1,000 feet of collection system to be viewed and recorded each day surveying is carried out.

### B. Video Monitoring Schedule

The initial video survey in 1993 proceeded from the furthest northeast extent of the collection system on Kelly Ridge to the western most portion, where it discharges to SC-OR's collection system. The initial video survey identified a list of sections that needed further attention. Those sections were then prioritized for repair or replacement based on the severity of the problem. Following the replacement and repair of the most crucial areas identified in the first survey, the entire system has been fully videotaped a second time in search of new problem areas and as follow up on repairs made following the first survey. The District continues to conduct ongoing video inspections throughout the year, focusing on older sections of the system and areas known to experience Inflow and Infiltration (I&I).

### C. Villa Verona Maintenance Procedure

Each Villa Verona STEP system consists of an individual fiber glass septic tank and a biofilter. Some have pumps to lift effluent into a gravity line. Partially treated septage flows by gravity or is pumped through the biofilter and into small diameter (typically 3") force or larger gravity mains. In some cases, several STEP systems pump into a common force main, eventually discharging to the gravity main collection pipeline. Regular maintenance of the STEP system tanks and pumps include the following general steps:

1. Removal and cleaning of the biofilter;
2. Pumping of the septic tank;
3. Replacement of biofilter if necessary;
4. Clean and inspect pump - rebuild, or replace as necessary;
5. General system checks, provided no specific problems had been previously noted by homeowner; and
6. Cleanup and disinfection of the area around the system.

#### D. Villa Verona Maintenance Schedule

Current maintenance policy requires the pumping and cleaning of the STEP systems throughout the Villa Verona Area once every five years, or more frequently if problems are reported by homeowners. Currently, maintenance crews are pumping between 25 and 50 tanks per year.

#### E. Lift Station Maintenance Procedure

Lift stations are inspected daily, weekly, and annually. Field staff visit each lift station daily to check for general conditions including odors, alarm systems, and evidence of overflow or spill. A complete description of lift station maintenance procedures is provided in the LOAPUD Sewer Operations and Maintenance Plan.

#### F. Lift Station Maintenance Schedule

1. **Daily inspections** include flow and system time recording, pump and motor operation, wet well level, and general electronic system check.
2. **Weekly inspections** include cleaning of the wet well and backup generator check. Pumps are also manually run through a full range of operation.
3. **Quarterly/Annual inspections** include all manufacturer recommended mechanical system maintenance, general lubrication, and station cleaning.

#### G. Winter Preparedness

Field staff focus efforts in September, October, and November on those portions of the collection system which will be less accessible during the winter months or which have shown signs that higher flows may jeopardize system integrity. These areas include:

1. Overland pipe routes likely to be inaccessible due to mud or snow;
2. Problem areas already identified in prior video monitoring;
3. Areas known to receive high wet weather flows due to Inflow and Infiltration (I&I); and
4. Manholes susceptible to inundation, which are sealed to prevent inflow.

#### H. Flow Measurement

The District maintains a variety of stationary and portable flow measurement equipment. Sewer flows are recorded in various sections of the system during dry and wet periods to detect any excessive Inflow and Infiltration (I&I). Pump durations can also be used at each lift station to determine contributing flow rates. Once identified, the District investigates upstream pipes and connections more closely for sources of the increased flow.

Dry weather (base) flows are recorded in the summer months (July, August, September) when no inflow and little infiltration is likely to be recorded in the

system. Pump records are then used during periods of rain to identify general areas of concern and where more specific flow measurement devices should be placed.

## **V. OVERFLOW RESPONSE PROCEDURE**

The Overflow Response Procedure presents the strategy LOAPUD uses to mobilize personnel, materials, tools, and equipment to correct or repair any condition which may cause or contribute to overflows and unpermitted discharge. The plan considers a wide range of potential system failures that could lead to overflows.

### A. Sewer Overflow Detection

#### Report from Public

An overflow may be detected by LOAPUD staff or by the public. LOAPUD is primarily responsible for receiving phone calls from the public regarding possible sewer overflows from the wastewater collection system, and for forwarding work orders to staff and, when necessary, submitting spill reports to the Regional Water Quality Control Board and the Butte County Environmental Health Department.

The telephone operator should obtain all relevant information available regarding the overflow including:

1. Time and date call was received;
2. Specific location;
3. Description of problem;
4. Time possible overflow was noticed by the caller;
5. Caller's name and phone number;
6. Observations of the caller (e.g., odor, duration, back or front of property); and
7. Other relevant information that will enable the responding investigator and crews, if required, to quickly locate, assess and stop the overflow.

The telephone operator then records the incident information and creates an Incident Response Work Order (Appendix II) for assignment to response staff.

#### Alarms

Lift stations are wired to signal the main office in the event of conditions which may include high and low wet well level alarms, power failure, or unusual pump conditions. When a lift station alarm occurs, field staff will be notified that the system requires attention. All information regarding alarms will be conveyed to the on duty field staff to initiate a preliminary investigation.

## Personnel

Sewer overflows detected by any personnel in the course of their normal duties shall be reported immediately to the main office. Dispatching personnel (office staff) should record all relevant overflow information and dispatch additional response personnel as needed. (Until verified, the report of a possible spill will not be referred to as a “sewer overflow”.) A Sewage Spill Report form (See Appendix III) should be completed by responding personnel within 24 hours of spill confirmation. The General Manager or other staff with signature authority is responsible for reviewing, updating and signing the final Sewage Spill Report.

## B. Sewer Overflow Response

Failure of any element within the wastewater collection system that threatens to cause or causes an overflow will trigger an immediate response to isolate and correct the problem. Field personnel and equipment shall be available at all times to respond to any incident/overflow location. Staff will be dispatched to any site of a reported overflow immediately. Additional maintenance personnel shall be “on call” via cell phone should extra field personnel be needed.

1. Dispatching Field Personnel
  - a. Office staff should receive notification of sewer overflows as outlined above in Section A, “Sewer Overflow Detection” and dispatch the appropriate field personnel and resources as required.
  - b. Dispatchers shall notify the appropriate manager or supervisor by cell phone regarding sewer overflows and field crew locations.
2. Crew Instructions and Work Orders
  - a. Responding field personnel are dispatched by cell phone. They should be informed of the appropriate field personnel, materials, supplies, and equipment that might be needed.
3. Responsibilities of Response Crew Upon Arrival
  - a. It is the responsibility of the first response personnel who arrive at the site of a sewer overflow to protect the health and safety of the public by mitigating the impact of the overflow to the extent possible. Should the overflow not be the responsibility of LOAPUD but there is imminent danger to public health, public or private property, or to the quality of waters of the State, then prudent emergency action shall be taken until the actual responsible party can provide necessary cleanup actions. Upon arrival at an overflow, the response crew should do the following:
    - b. Determine the cause of the overflow, e.g. sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc.;



- c. Identify and request, if necessary, assistance or additional resources to correct the overflow or to assist in the determination of its cause;
- d. Determine if private property is impacted. If yes, notify office staff so the Butte County Environmental Health Department may be advised;
- e. Take immediate steps to stop the overflow, e.g. relieve pipeline blockage, manually operate pump station controls, repair pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off of private property into the public right-of-way); and
- f. Request additional personnel, materials, supplies, or equipment that will expedite and minimize the impact of the overflow. Take 'before' cleanup incident photos if possible.

#### 4. Initial Measures for Containment

- a. The response crew will initiate measures to contain the overflowing sewage and recover, where possible, sewage which has already been discharged, minimizing impact to public health and the environment.
- b. Determine the immediate destination of the overflow, e.g. storm drain, street gutter, body of water, creek bed, etc.;
- c. Identify and request the necessary materials and equipment to contain or isolate the overflow, if not readily available; and
- d. Take immediate steps to contain the overflow, e.g., block or bag storm drains, divert into downstream/downgradient manhole, recover through vacuum truck, etc.

#### 5. Additional Measures Under Potentially Prolonged Overflow Conditions

In the event of a prolonged sewer line blockage or a sewer line collapse, a determination should be made to set up a portable by-pass pumping operation around the obstruction.

- a. Appropriate measures shall be taken to determine the proper size and number of pumps required to effectively handle the sewage flow.
- b. Continuous or periodic monitoring of the by-pass pumping operation shall be implemented as required.
- c. Regulatory agency issues shall be addressed in conjunction with emergency repairs.

## 6. Cleanup

- a. Sewer overflow sites are to be thoroughly cleaned after an overflow. No readily identified residue (e.g., sewage solids, papers, rags, plastics, rubber products) is to remain.
- b. Where practical, the area is to be thoroughly flushed and cleaned of any sewage or wash-down water. Solids and debris are to be vacuumed, flushed, swept, raked, picked-up, and transported for proper disposal.
- c. The overflow site is to be secured to prevent contact by members of the public until the site has been thoroughly cleaned. Posting if required should be undertaken pursuant to Section VI.
- d. Where appropriate, the overflow site is to be disinfected and deodorized.
- e. Where sewage has resulted in ponding, the pond should be pumped dry and the residue disposed of in accordance with applicable regulations and policies.
- f. If a ponded area contains sewage which cannot be pumped dry, it may be treated with bleach. If sewage has discharged into a body of water that may contain fish or other aquatic life, bleach or other disinfectant should not be applied and the California Department of Fish and Game should be contacted for specific instructions.
- g. Use of portable aerators may be required where complete recovery of sewage is not practical and where severe oxygen depletion in existing surface water is expected.

### C. Water Quality Sampling

In cases where 50,000 gallons or greater of sewage are spilled to surface waters, the receiving waters must be sampled to determine impacts and ensure adequate cleanup. Water quality sampling must be conducted within 48 hours of becoming aware of the SSO. Spills to fresh waters shall be sampled at minimum for ammonia and bacterial indicators. The water quality analysis shall be performed by an accredited or certified laboratory. Sampling shall be conducted in the affected receiving water body upstream, at, and downstream of the spill's point of entry, and as necessary to characterize the spill's impact (and to ensure adequate cleanup). This sampling shall be coordinated with the Butte County Environmental Health Department. All sampling data shall be submitted to the Regional Water Quality Control Board as it becomes available through the Online SSO database.

#### D. Sewage Spill Report

A Sewage Spill Report (See form in Appendix III) shall be completed by on duty staff the same day the spill is confirmed. Field staff shall promptly notify office staff when the overflow is eliminated. Field staff should provide estimates of the amount of sewage involved in the overflow. See Appendix IV for guidance on estimating sewer overflow volumes and flow rates. If it is determined that a sewer overflow has occurred, it must be reported to the SWRCB by telephone and using the online reporting system, as per Section VII. The online reporting system generates a spill report for each event in addition to this in-house spill report form.

#### E. District Efforts to Contain, Control, and Mitigate SSO

In any enforcement action, the Regional Water Board will consider the District's efforts to contain, control and mitigate SSO's. They shall take into consideration whether:

1. The District has complied with requirements for implementing a Sewer System Management Plan (SSMP), including implementing this Sewer Overflow Prevention and Response Plan.
2. The District can identify the cause or likely cause of the SSO event.
3. There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of I&I, use of adequate backup equipment, collecting and hauling sewage to a treatment facility, or an increase in the capacity of the system to accommodate storm events as identified in the SSMP.
4. The SSO was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the District.
5. The SSO could have been prevented by the exercise of reasonable control described in the SSMP for:
  - a. Proper system management, operation and maintenance;
  - b. Adequate sanitary sewer system facilities with appropriate design capacity to reasonably prevent SSOs;
  - c. Preventative maintenance including FOG control;
  - d. Installation of adequate backup equipment; and
  - e. Infiltration and Inflow (I&I) prevention and control to the extent practical.
6. The District took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.

## F. Customer Satisfaction - Follow-up

Field staff shall revisit the incident site once cleanup operation is completed. They shall take 'after' photographs. Field or office staff shall follow-up in person or by telephone with the citizen(s) reporting and / or affected by the overflow. The cause of the overflow and its resolution shall be explained.

## **VI. PUBLIC ADVISORY PROCEDURE**

### A. Internal and Regional Communication

When an overflow has been confirmed to be a threat to public health, the following actions should be taken to notify the public:

- Field personnel verifies overflow and confirms that it indeed could threaten the public and reports back to the main office.
- Office staff shall be the "first-line" of response to the media for any overflow.
- After hours and weekend sewer overflows are reported to the main office at the number(s) listed in Table 3 as follows.

Table 3  
LAKE OROVILLE AREA PUBLIC UTILITY DISTRICT  
Phone Contact List

**DISTRICT OFFICE 530-533-2000**

Office Staff After- Hours Contact Numbers

NAME	PHONE	CELLULAR	EMAIL
SCOTT McCUTCHEON	514-1641	520-2892	scottm@loapud.com
KELLY HAMBLIN		510-0198	kellyh@loapud.com
DARIN KAHALEKULU		403-6782	darink@loapud.com

Field Staff After-Hours Contact Numbers

NAME	PHONE	CELLULAR	EMAIL
VINCENT VICTORINO	636-3665	520-8309	<a href="mailto:VINCENTV@LOAPUD.COM">VINCENTV@LOAPUD.COM</a>
SHAWN PETERSON	693-0330	282-2844	<a href="mailto:SHAWN@LOAPUD.COM">SHAWN@LOAPUD.COM</a>
JOSH FREEMAN	966-3547	353-0341	<a href="mailto:JFREEMAN@LOAPUD.COM">JFREEMAN@LOAPUD.COM</a>
ROBERT BRODERSON	533-3845	701-1319	<a href="mailto:RBRODERSON@LOAPUD.COM">RBRODERSON@LOAPUD.COM</a>

Regional Contacts

Agency	Phone
<b>Governor's Office of Emergency Services</b>	<b>800-852-7550</b>
<b>Regional Water Quality Control Board</b>	<b>530-224-3208 (Greg Cash)</b>
<b>Butte County Dept. of Environmental Health</b>	<b>530-538-7281</b>
SC-OR	530-534-0353
Thermalito Water and Sewer District	530-533-0740
Butte County Office of Emergency Services	530-538-7373
City of Oroville Public Works	530-538-2420
Butte County Dept. Of Public Works	530-538-7681
California Dept. Fish & Game	916-358-2900

**Category 1 SSO's greater than or equal to 1,000 gallons must be reported to the Governor's Office of Emergency Services (CalOES).** Other contacts shall be made as appropriate given the nature and extent of the SSO.

## B. Temporary Signage

The following action should be taken, in cooperation with the Butte County Environmental Health Department, to limit public access to areas potentially impacted by unpermitted discharges of pollutants to surface water bodies from the wastewater collection system.

The Butte County Environmental Health Department has primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces, however until they can respond to the scene of the overflow, LOAPUD will be responsible for the communication to the public that unsafe conditions may be present. The postings will not necessarily prohibit access or use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination.

## C. Other Public Notification

Public notification will be directed by the **Regional Water Quality Control Board** and/or **Butte County Environmental Health Department** once they have been informed of the situation according to Section VII below.

## **VII. REGULATORY AGENCY NOTIFICATION**

This Plan establishes procedures which LOAPUD shall follow to provide formal notice to the:

- Regional Water Quality Control Board,
- Butte County Environmental Health Department, and
- CalEMA

as necessary in the event of a spill. The reporting criteria below explains the reporting limits and to whom various forms of notification should be made, and lists agencies/individuals to be contacted.

### A. Regional Water Quality Control Board Notification

Reporting to the Regional Water Quality Control Board shall be in accordance with the State Water Resources Control Board Monitoring and Reporting Program No. 2006-0003-DWQ Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. In accordance with that program, the following reporting through the California Integrated Water Quality System online database is required:

### B. Reporting to the Governor's Office Emergency Services

1. Category 1 - All discharges of sewage of any volume resulting from a failure in the sewer collection system that:

- A. Result in a discharge to a drainage channel and/or surface water; or
  - B. Discharge to a storm drainpipe that is not fully captured and returned to the sanitary sewer system.
2. Category 2 - All discharges of sewage of 1,000 gallons or more resulting from a failure in the sewer collection system that do not result in a discharge to a drainage channel and/or surface water, or discharge to a storm drainpipe that is not fully captured and returned to the sanitary sewer system.
3. Category 3 - All other discharges of sewage resulting from a failure in the sewer collection system.
4. Private Lateral Sewage Discharges (PLSD) - Discharges of untreated or partially treated wastewater resulting from blockages or other problems **within a privately owned sewer lateral** connected to LOAPUD's sanitary sewer system or from other private sewer assets. PLSDs that LOAPUD becomes aware of may be voluntarily reported to the California Integrated Water Quality System (CIWQS) Online SSO Database.

C. SSO Notification Requirements

1. Within 2 hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water, notify the California Office of Emergency Services (CalOES) and obtain a notification control number.

CalOES      800-852-7550

2. To satisfy notification requirements for each applicable SSO, LOAPUD shall provide the information requested by CalOES before receiving a control number. Spill information requested by CalOES may include:

- i. Name of person notifying CalOES and direct return phone number.
- ii. Estimated SSO volume discharged (gallons).
- iii. If ongoing, estimated SSO discharge rate (gallons per minute).
- iv. SSO Incident Description:
  - a. Brief narrative.

- b. On-scene point of contact for additional information (name and cell phone number).
- c. Date and time enrollee became aware of the SSO.
- d. Name of sanitary sewer system agency causing the SSO.
- e. SSO cause (if known).
- v. Indication of whether the SSO has been contained.
- vi. Indication of whether surface water is impacted.
- vii. Name of surface water impacted by the SSO, if applicable.
- viii. Indication of whether a drinking water supply is or may be impacted by the SSO.
- ix. Any other known SSO impacts.
- x. SSO incident location (address, city, state, and zip code).

3. Following the initial notification to CalOES and until such time that LOAPUD certifies the SSO report in the CIWQS Online SSO Database, LOAPUD shall provide updates to CalOES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).

4. PLSD's: LOAPUD is strongly encouraged to notify CalOES of discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within a privately owned sewer lateral or from other private sewer asset(s) if LOAPUD becomes aware of the PLSD.

#### D. SSO Reporting Time Frames

1. Category 1 SSO: Submit draft report within three (3) business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. Enter data into the CIWQS Online SSO Database.
2. Category 2 SSO: Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date. Enter data into the CIWQS Online SSO Database.
3. Category 3 SSO: Submit certified report within 30 calendar days of the end of month in which the SSO occurred. Enter data into the CIWQS Online SSO Database.



4. SSO Technical Report: Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. Enter data into the CIWQS Online SSO Database.
5. "No Spill" Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred. Enter data into the CIWQS Online SSO Database.
6. Collection System Questionnaire: Update and certify every 12 months. Enter data into the CIWQS Online SSO Database.

#### E. SSO Technical Report

1. For any SSO in which 50,000 gallons or greater are spilled to surface waters, an SSO Technical Report shall be submitted in the CIWQS Online SSO Database within 45 calendar days of the SSO end date. This report shall include at a minimum, the following:

##### Causes and Circumstances of the SSO:

- a. Complete and detailed explanation of how and when the SSO was discovered.
- b. Diagram showing the SSO failure point, appearance point(s), and final destination(s).
- c. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
- d. Detailed description of the cause(s) of the SSO.
- e. Copies of original field crew records used to document the SSO.
- f. Historical maintenance records for the failure location.ii. Enrollee's

##### Response to SSO:

- a. Chronological narrative description of all actions taken by enrollee to terminate the spill.
- b. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.
- c. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed. iii.

### Water Quality Monitoring:

- a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
- b. Detailed location map illustrating all water quality sampling points.

### F. Private Lateral Sewer Discharges

1. Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the LOAPUD sanitary sewer system or from other private sanitary sewer system assets may be voluntarily reported to the CIWQS Online SSO Database.

### G. CIWQS Online SSO Database Unavailability

1. In the event that the Online SSO Database is not available, LOAPUD must fax all required information to:

Regional Water Quality Control Board  
Central Valley Region  
C/O Greg Cash Direct line: (530) 224-3208  
415 Knollcrest Drive, Suite 100,  
Redding, California 96002  
Main Office 530-224-4845                      **Fax: (530) 224-4857**

In accordance with the time schedules identified above. In such an event, LOAPUD must also enter all required information into the Online SSO Database as soon as it is possible to do so.

### H. Mandatory Information to be Included in Online SSO Reporting

1. At a minimum, the following mandatory information must be included prior to finalizing and certifying an SSO report for each category of SSO:
  - a. Draft Category 1 SSOs: At a minimum, the following mandatory information shall be reported for a draft Category 1 SSO report:
    - i. SSO Contact Information: Name and telephone number of enrollee contact person who can answer specific questions about the SSO being reported.
    - ii. SSO Location Name.
    - iii. Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.

- iv. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
- v. Whether or not the SSO reached a municipal separate storm drain system.
- vi. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.
- vii. Estimate of the SSO volume, inclusive of all discharge point(s).
- viii. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain.
- ix. Estimate of the SSO volume recovered (if applicable).
- x. Number of SSO appearance point(s).
- xi. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
- xii. SSO start date and time.
- xiii. Date and time the enrollee was notified of, or self-discovered, the SSO.
- xiv. Estimated operator arrival time.
- xv. For spills greater than or equal to 1,000 gallons, the date and time CalOES was called.
- xvi. For spills greater than or equal to 1,000 gallons, the Cal OES control number.

b. Certified Category 1 SSOs: At a minimum, the following mandatory information shall be reported for a certified Category 1 SSO report, in addition to all fields in section 8.i.a:

- i. Description of SSO destination(s).
- ii. SSO end date and time.
- iii. SSO causes (mainline blockage, roots, etc.).
- iv. SSO failure point (main, lateral, etc.).
- v. Whether or not the spill was associated with a storm event.

- vi. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
  - vii. Description of spill response activities.
  - viii. Spill response completion date.
  - ix. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion.
  - x. Whether or not a beach closure occurred or may have occurred as a result of the SSO.
  - xi. Whether or not health warnings were posted as a result of the SSO.
  - xii. Name of beach(es) closed and/or impacted. If no beach was impacted, NA shall be selected.
  - xiii. Name of surface water(s) impacted.
  - xiv. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.
  - xv. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.
  - xvi. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered.
  - xvii. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.
- c. Draft Category 2 SSO's: At a minimum, the following mandatory information shall be reported for a draft Category 2 SSO report:
- i. Items 1-14 in section H.1.a above for Draft Category 1 SSO.
- d. Certified Category 2 SSOs: At a minimum, the following mandatory information shall be reported for a certified Category 2 SSO report:
- i. Items 1-14 in section H.1.a above for Draft Category 1 SSO and Items 1-9, and 17 in section H.1.b above for Certified Category 1 SSO.

- ii.
- e. Certified Category 3 SSOs: At a minimum, the following mandatory information shall be reported for a Certified Category 3 SSO report:
  - i. Items 1-14 in section H.1.a above for Draft Category 1 SSO and items 1-5, and 17 in section H.1.b above for Certified Category 1 SSO
- f. Private Lateral Sewage Discharges:
  - i. If a PLSD is recorded in the CIWQS Online SSO Database, identify these waste discharge as occurring and caused by a private sanitary sewer system asset and identify a responsible party (other than LOAPUD), if known. Certification of PLSD reports is not required.

L. Reporting to the Governor's Office of Emergency Services

Official guidance is located in Appendix IV. **Immediate telephone reporting of a verified SSO to the Governor's Office of Emergency Services (OES) is required.**

California Water Code Section 13271 requires any person, without regard to intent or negligence, who causes or permits **1,000 gallons or more** of sewage to be discharged or deposited in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (1) that person has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify by telephone the

**Governor's Office of Emergency Services  
at 1-800-852-7550**

OES will immediately notify the appropriate Butte County Environmental Health Officer of the discharge. Upon receiving notification of the discharge, the local health officer and administrator of environmental health will determine whether notification of the public is required to safeguard public health and safety. If so, the local health officer and administrator of environmental health will immediately notify the public of the discharge by posting notices or other appropriate means.

OES Reporting Exceptions - Notification to OES of an unauthorized discharge of sewage is **not** required if:

- 1) the discharge occurs on land only and does not affect state waters; or
- 2) the discharge is in compliance with applicable waste discharge requirements.

These exceptions apply only to the responsibility to report to OES, and *do not* alter the Regional Board's reporting policies or waste discharge requirements.

#### J. Notification of Butte County Department of Environmental Health

Upon verification that a SSO has occurred, the District shall notify by telephone the

**Butte County Environmental Health Department:**

**Main Office: 530-522-3880**

**Danette York, Director**

The Butte County Environmental Health Department will take primary responsibility for determining the extent of danger to the public, appropriate public notification and posting, and working with the District to establish appropriate receiving water quality testing if applicable.

### **VIII. DISTRIBUTION AND MAINTENANCE OF PLAN**

Annual updates to this Sewer Overflow Prevention and Response Plan should be made to reflect all changes in policies and procedures as may be required to achieve its objectives.

#### **A. Submittal and Availability of Plan**

Copies of the Plan and any amendments should be distributed to all field personnel and be made immediately available to office staff.

All other personnel who may become incidentally involved in responding to overflows should be familiar with the Plan.

#### **B. Review and Update of Plan**

The Plan should be reviewed annually and amended as appropriate. LOAPUD should:

1. Update this Plan with the issuance of a revised or new NPDES discharge permit;

2. Conduct annual training sessions with appropriate personnel if necessary; and
3. Review and update, as needed, the various contact person lists included in the Plan.

# APPENDIX

Appendix I	Equipment Inventory
Appendix II	Incident Response Work Order
Appendix III	Spill Report Form
Appendix IV	Spill Size Estimation Guidelines
Appendix V	Response Flow Chart



## Appendix I

### Equipment Inventory

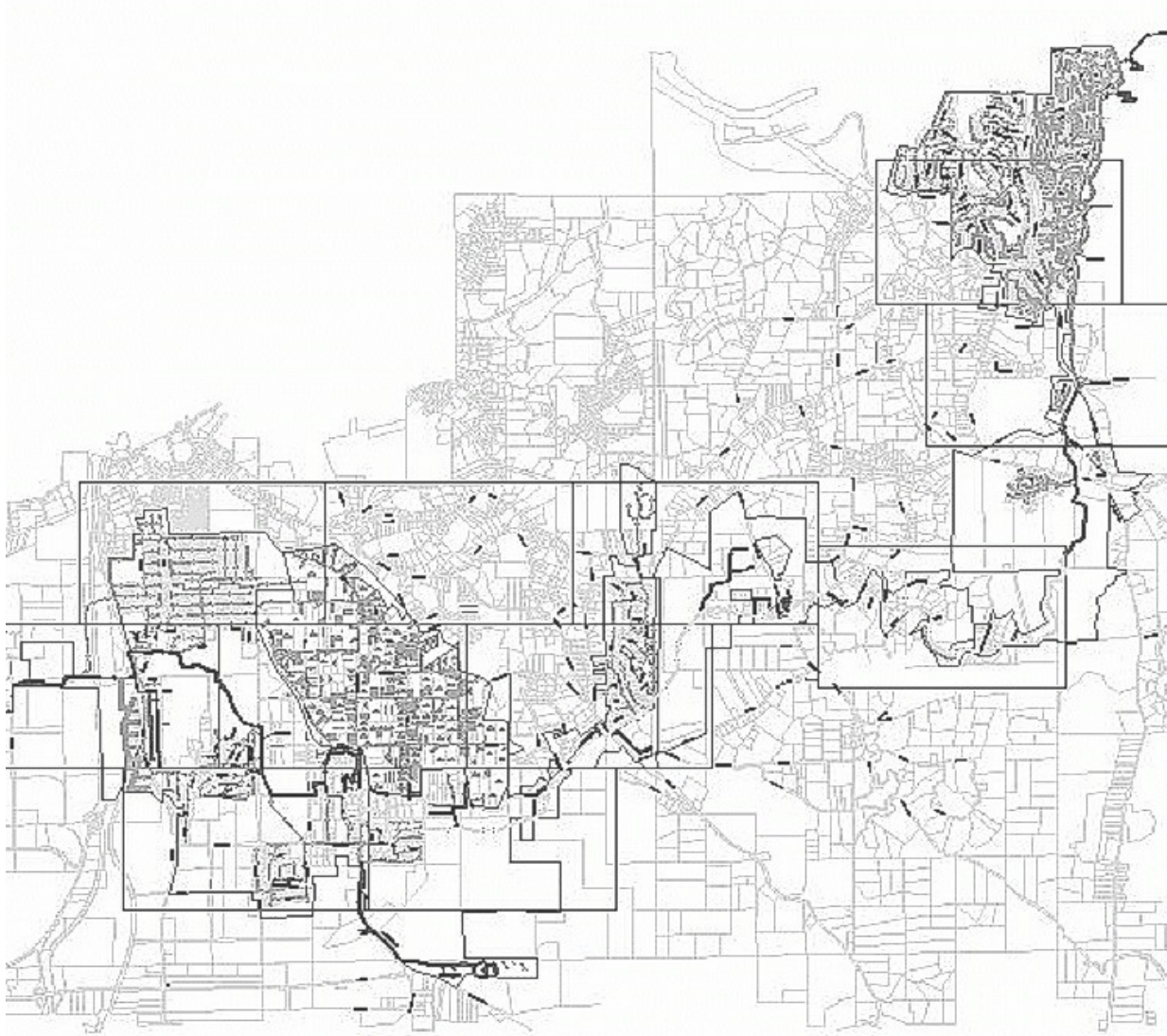
1. 2008 FORD EXPLORER
2. 2010 FORD F-150
3. 1999 FORD F-450 FLATBED DUMP
4. 1996 FORD F-350 7.5L
5. 1996 FORD F-150 FUEL TRUCK
6. 2004 STERLING JETRODDER
7. 2012 PETERBUILT PUMP TRUCK
8. 1998 BOBCAT X331
9. 1994 FORD ECONOLINE CAMERA VAN
10. 1988 CASE 580 SUPER K BACKHOE
11. 2007 PETERBUILT DUMP
12. 1993 FORD F-800 PUMP TRUCK
13. 1992 ATLAS PORTABLE COMPRESSOR
14. 2002 PORTABLE GODWIN PUMP
15. 1983 JETRODDER (BACK UP)
16. 2000 JOHN DEERE 410 BACKHOE
17. EASMENT MACHINE (DRIVES ITSELF BUT CONNECTS TO JETRODDER FOR WATER SUPPLY)
18. 2003 GORMAN RUPP PORTABLE PUMP
19. RODDING MACHINE (TRAILER MOUNTED SNAKE)
20. 1992 CASE TENCHER
21. 1970 JOHN DEERE 644A LOADER
22. 2006 KABELCO EXCAVATOR
23. 2019 FORD F-350 DUALY
24. 2019 FORD TRANSIT CCTV VAN
25. ROYAL OAKS GENERATOR
26. HANGING TREE GENERATOR
27. MOORETOWN GENERATOR
28. WINCO PORTABLE GENERATOR
29. ONAN GENERATOR

**Appendix II**  
Incident Response Work Order (Front)

No.

Time	Date
Incident Location	
Incident Description	
Caller contact information:	
Name	Phone
Address	
Caller observations (e.g., odor, duration, location on property)	
Additional Information	

**Appendix IIb**  
Incident Response Work Order (Back)



Circle approximate incident location on map.

Additional Information:

**Lake Oroville Area Public Utility District  
SEWER OVERFLOW REPORT**

**GENERAL INFORMATION**

- 1. This report is: PRELIMINARY \_\_\_\_\_ FINAL \_\_\_\_\_
- 2. Sanitary Sewer Overflow Sequential Tracking Number: \_\_\_\_\_
- 3. SSO Occurrence: Start Date \_\_\_\_\_ Start Time \_\_\_\_\_ Stop Date \_\_\_\_\_  
Stop Time \_\_\_\_\_
- 4. Reported by: Name: \_\_\_\_\_ Contact #: \_\_\_\_\_
- 5. Reported to: Name: \_\_\_\_\_ Contact #: \_\_\_\_\_

**LOCATION & DESCRIPTION**

- 6. SSO Location: Street Address: \_\_\_\_\_  
Coordinates: Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_
- 7. Estimated Volume: \_\_\_\_\_
- 8. Volume Recovered: \_\_\_\_\_
- 9. Estimated Volume Released to Environment: \_\_\_\_\_
- 10. Path of SSO: (Storm drain release, Storm drain recovered, ponded, street curb & gutter, etc.)

**RECEIVING WATER AFFECTED**

- 11. Surface Water Impacted: Yes \_\_\_\_\_ No \_\_\_\_\_
- 12. If Yes, initial receiving surface water identification: \_\_\_\_\_
- 13. Affected secondary receiving water or groundwater identification, if applicable: \_\_\_\_\_
- 14. Estimated amount of sewage reaching waters of State: \_\_\_\_\_  
Details: \_\_\_\_\_
- 15. Were any fish killed? \_\_\_\_\_ If yes, was Fish & Game notified? \_\_\_\_\_
- 16. Were signs posted to warn of contamination? \_\_\_\_\_ Details: \_\_\_\_\_

**SSO CAUSE**

- 14. Sanitary Sewer Structure ID (manhole #, pipe ID, Lift Station name) : \_\_\_\_\_
- 15. Identified Cause of SSO (Blockage, pipe failure, electrical failure, capacity deficiency, I&I, etc.):  
\_\_\_\_\_
- 16. If Blockage, identify cause (roots, grease, debris, vandalism, etc.):  
\_\_\_\_\_
- 17. Number and dates of SSOs within 1000 feet of this SSO within past 12 months:  
\_\_\_\_\_
- 18. Precipitation in 72 hour period preceding SSO: \_\_\_\_\_
- 19. Other causative or influencing conditions: \_\_\_\_\_

**CORRECTIVE ACTION**

20. Time and Date of Response initiation: \_\_\_\_\_

21. Description of Response and Corrective Actions Taken: \_\_\_\_\_

22. Description of Cleanup: \_\_\_\_\_  
\_\_\_\_\_

23. Description of Disinfection, if applicable: \_\_\_\_\_  
\_\_\_\_\_

23. Were water quality samples taken?  YES  NO If so, what parameters? \_\_\_\_\_  
\_\_\_\_\_

25. Were photos taken? \_\_\_\_\_

26. Is there an on-going investigation of this SSO? \_\_\_\_\_

27. What steps will be taken to prevent a reoccurrence of this SSO?  
\_\_\_\_\_  
\_\_\_\_\_

28. What scheduling milestones apply to preventive steps in 27?  
\_\_\_\_\_

29. Was a follow-up contact made with the incident reporter / customer if applicable? \_\_\_\_\_

**NOTIFICATIONS**

30. Time and Date of OES notification \_\_\_\_\_ OES #: \_\_\_\_\_

31. Time and Date of Butte County Environmental Health Department notification: \_\_\_\_\_

32. Time of entry of SSO into CIWQS Online SSO Database: \_\_\_\_\_ SSO# \_\_\_\_\_

33. List any other agency notifications & details: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CERTIFICATION**

I swear under penalty of perjury that the information submitted in this document is true and correct to the best of my knowledge. I certify that I have personally examined and am familiar with the information submitted herein and that based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## APPENDIX IV

### Spill Volume Estimating

A variety of approaches exist for the estimation of the volume of a Sanitary Sewer Overflow (SOS). The person preparing the estimate should use the method most appropriate to the sewer overflow in question using the best information available. Every effort should be made to make the best possible estimate of the volume.

**Method 1 Visual Estimate** - The volume of very small spills can be estimated using an “eyeball estimate.” To use this method, imagine the amount of water that would spill from a bucket or a barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the spill is larger than 50 gallons, try to break the standing water into barrels and then multiply by 50 gallons. This method is useful for contained spills up to 100 gallons.

**Method 2 Measured Volume** - The volume of most small spills can be estimated using this method if rainfall or other extraneous sources are not contributing to the volume. The shape, dimensions, and the depth of the spilled wastewater are needed. The shape and dimensions are used to calculate the area of the spills and the depth is used to calculate the volume.

- |        |  |
|--------|--|
| Step 1 | Sketch the shape of the contained sewage   |
| Step 2 | Measure or pace off the dimensions.  |
| Step 3 | Measure the depth at several locations   |
| Step 4 | Convert the dimensions, including depth to feet.   |
| Step 5 | Calculate the area using the following formulas:<br>Rectangle Area = length x width<br>Circle Area = $0.785 \times D^2$ (where D is diameter of the area)<br>Triangle Area = base x height x 0.5 |
| Step 6 | Multiply the area times the depth  |
| Step 7 | Multiply the volume by 7.5 to convert it to gallons.   |

**Method 3 Duration and Flow Rate** - Calculating the volume of spills where it is difficult or impossible to measure the area and depth requires a different approach. In this method a separate estimate is made of the duration of the spill and the flow rate. The methods of estimating duration and flow rate are:

**Duration:** The duration is the elapsed time from the start time of the spill to the time the spill stopped.

**Start time** is sometimes difficult to establish. Here are some approaches:

- Local residents can be used to establish start time. Inquire as to their observations. Spills that occur in right-of-way are usually observed and reported in short order. Spills that occur out of the public view can go on longer.
- Sometimes observations like odors or sounds (e.g. water running in a normally dry creek bed) can be used to estimate the start time.
- Changes in flow on a downstream flowmeter can be used to establish the start time. Typically, the daily flow peaks are “cut off” or flattened by the loss of flow. This can be identified by comparing hourly flow data, when available.

- Conditions at the spill site change with time. Initially there will be limited deposits of grease and toilet paper. After a few days to a week, the grease forms a light colored residue. After a few weeks to a month the grease turns dark. In both cases the quantity of toilet paper and other materials of sewage origin increase in amount. These changes with time can be used to estimate the start time in the absence of other information.

**End time** is usually much easier to establish. Field crews on-site observe the “blow down” that occurs when the blockage has been removed. The “blow down” can also be observed in downstream flowmeters.

**Flow Rate:** The flow rate is the average flow that left the sewer system during the time of the spill. There are three ways to estimate the flow rate:

- San Diego Manhole Flow Rate Chart (see next page): This chart shows the sewage flowing from a manhole cover for a variety of flow rates. The observations of the field crew are used to select the approximate flow rate from the chart.
- Flowmeter: Changes in flows in the downstream flowmeters can be used to estimate the flow rate during the spill.
- Estimate based on up-stream connections: Once the location of the spill is known, the number of upstream connections can be determined from the field books. Multiply the number of connection by 200 to 250 gallons per day per connection or 8-10 gallons per hour per connection. If very wet conditions may be contributing to Infiltration and Inflow (I&I), add an allowance for I&I. The allowance may be based on a measurable peaking factor in the system or estimated based on judgement.

Once duration and flow rate have been estimated, the volume of the spill is the product of the duration in hours or days times the flow rate in gallons per hour or gallons per day.

$$\text{Volume} = (\text{Duration}) \times (\text{Flow Rate})$$

**Collection System Collaborative Benchmarking Group  
Best Practices for Sanitary Sewer Overflow (SSO) Prevention and Response Plan**





City of San Diego  
Metropolitan Wastewater Department

### Reference Sheet for Estimating Sewer Spills from Overflowing Sewer Manholes

All estimates are calculated in gallons per minute (gpm)



Wastewater Collection Division  
(619) 654-4160



5 gpm



25 gpm



50 gpm



100 gpm



150 gpm



200 gpm



225 gpm



250 gpm



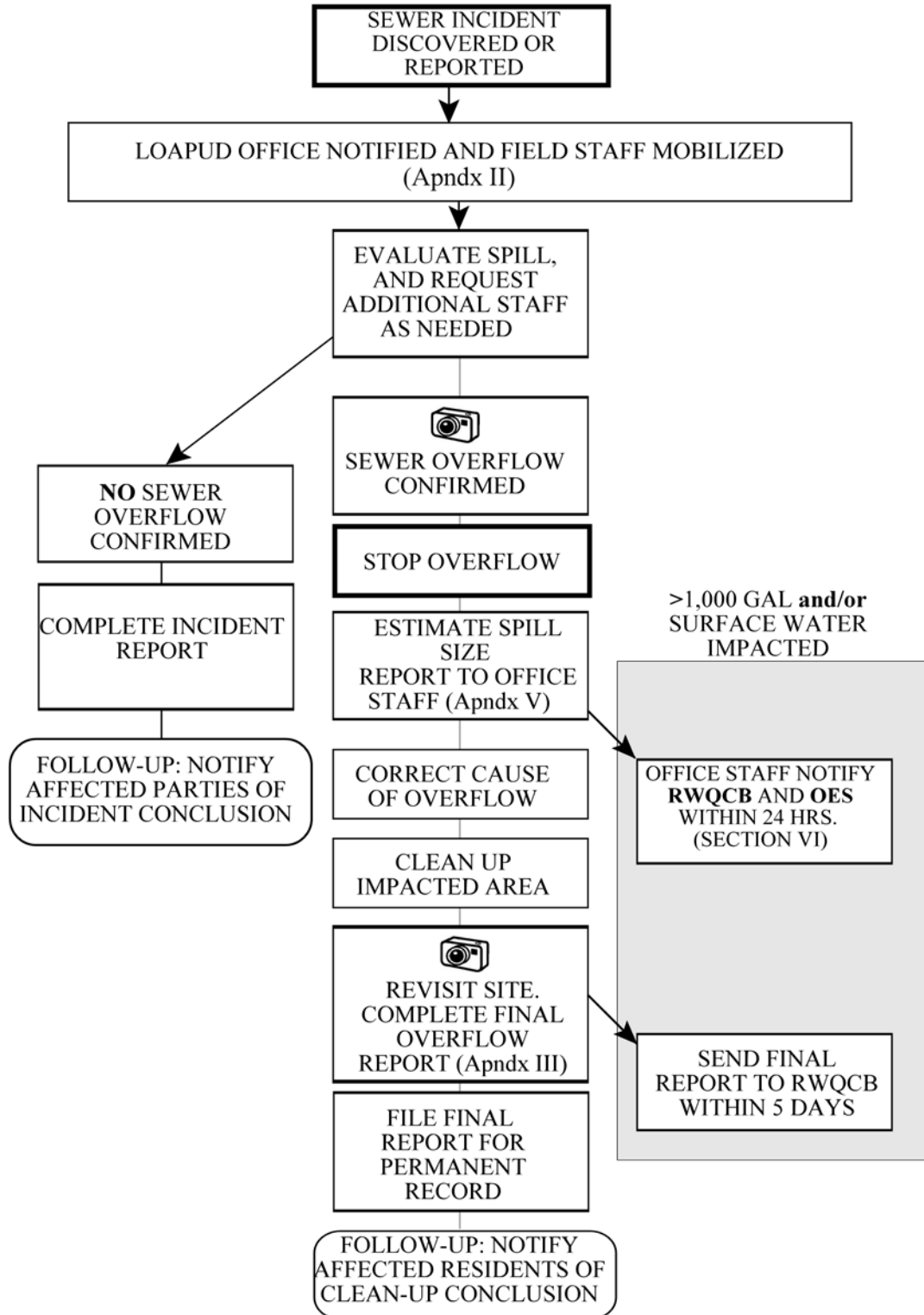
275 gpm

### Flow Estimation Pictures

All photos were taken during a demonstration using metered water from a hydrant in cooperation with the City of San Diego's Water Department.

rev. 4/99

## Appendix V Response Flow Chart



### SECTION VII - FOG CONTROL PROGRAM



**FATS, OILS AND GREASE (FOG)  
CONTROL PLAN**

SEPTEMBER 2021

Prepared by:

**Sauers Engineering, Inc.**  
105 Providence Mine Road, Suite 202  
Nevada City, CA 95959  
(530)-265-8021

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# Lake Oroville Area Public Utility District FOG Control Plan

## I. INTRODUCTION

### A. Purpose of FOG Control Program

Lake Oroville Area Public Utility District has directed Sauers Engineering to assist in preparing a FOG Control Program to prevent the occurrence of problems such as pipeline blockages, reduced capacity and sewer overflows in the collection system caused by the occurrence of Fats, Oils, and Grease (FOG), and to reduce the need for extra collection system maintenance caused by the presence of FOG in the system. This FOG Control Plan is in accordance with California State Water Resources Control Board Order No. 2006-0003-DWQ Statewide General WDR for Wastewater Collection Agencies. It is a required element of the overall Sewer System Management Plan.

### B. Applicability to LOAPUD

In addition to about 5,031 residential customers, LOAPUD presently serves 702 commercial connections totaling approximately 1,129 commercial EDUs. The existing commercial services include business offices, schools, cabinet shops, sales offices, churches, domestic waste, grocery stores, liquor stores, pet sales, gas stations, wrecking yard, restaurants, laundromats, bars, industrial services and two casinos. In addition, there is undeveloped acreage zoned commercial and planned unit development that may include any of these uses in the future.

Due to the potential for fats, oils, and grease in the waste stream from some of these commercial customers, LOAPUD must formulate a FOG Source Control Program as an element of the Sewer System Management Plan. In particular, it is known that Food Service Establishments (FSEs), which may include but are not limited to restaurants, delicatessens, coffee shops, bakeries, drive-ins, fast food, take-out, doughnut shops, hospitals, markets, schools, churches, motels/hotels, recreation or reception halls, and conference centers may have the potential to generate fats, oils, and greases in quantities that may cause problems in the collection system. These problems primarily consist of pipeline blockages that restrict system capacity, may cause sewer overflows, and require increased system maintenance.

Due to this potential for FOG related collection system problems, LOAPUD has developed and will enforce this FOG Control Plan.

### C. Legal Authority to Adopt and Enforce FOG Control Program

Lake Oroville Area Public Utility District was formed and operates under the Public Utility District Act, Statutes of 1921 of the California Public Utility Code. A five-member Board of Directors, elected at large by the District's voters, is responsible for setting policy and general administrative procedures for the District. The policies and procedures set by the Board are administered by the District General Manager.

The LOAPUD Board of Directors has adopted numerous policies and ordinances governing the operation of this utility. The LOAPUD Manual of Board Policies includes adopted Policy No. 7065, SEWER USE REGULATIONS, (adopted January 11, 1989 and amended March 9, 2010) regarding the use of public sewers within Lake Oroville Area Public Utility District. This Policy specifically: (a) prohibits illicit discharges to the system (Section 5.1 - 5.8); (b) requires that the system is properly constructed (Section 4.1 - 4.8); (c) ensures access to system elements for inspection and maintenance (Section 4.4); (d) limits the discharge of fats, oils, and grease (Section 5.2 - 5.4); and, (e) enforces any violation of these elements (Section 7.1 - 7.5)

#### **Section 8 of the LOAPUD Sewer Ordinance specifically addresses the District's rules and regulations related to Fats, Oils and Grease Control.**

The stated purpose of this section is to stop sanitary system overflow and reduce grease accumulation in the sanitary sewer mainlines resulting from the introduction of fats, oils, and grease from food service establishments.

Section 8.04 of the Sewer Ordinance addresses legal and administrative action for noncompliance with District and California Plumbing Code regulations related to the control of fats, oils, and grease.

LOAPUD has adopted and may continue to adopt additional ordinances, policies, agreements, and procedures that further define their legal authority in these areas and provide more detailed guidelines and/or requirements specific to these issues.

## **II. STATE REQUIREMENTS OF THE FOG CONTROL PROGRAM**

As per the requirements of the California State Water Resources Control Board Order No. 2006-0003-DWQ Statewide General WDR for Wastewater Collection Agencies, this program shall specifically include elements A through G. The verbiage from the WDR requirements are in italics. For each required element, the relevant sections of this FOG Control Plan are identified.

#### A. Public Education Plan

*An implementation plan and schedule for a public education outreach program that promotes proper disposal for FOG. Public education for FSEs can be found in Section II-A.*

#### B. FOG Disposal Plan

*A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area. This can be found in Section II-B.*

#### C. Legal Authority to Control FOG

*The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG. LOAPUD's authority to control FOG is described in Section I-C.*

#### D. Grease Interceptor Requirements

*Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements. These elements can be found in Sections III-A, Section IV, and Section V.*

#### E. Inspection and Enforcement

*Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance. This element is addressed in Sections I-C, V-B, and V-D.*

#### F. Identification of Sewer System Components Vulnerable to FOG Problems

*An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section. Section VI details LOAPUDs procedures for tracking and responding to FOG related problems.*

#### G. Source Control Measures

*Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (F).*



Section VI details the source control measures LOAPUD takes in response to FOG related problems.

### III. BEST MANAGEMENT PRACTICES FOR FOOD SERVICE ESTABLISHMENTS

As per Section 8.03 of LOAPUD's Sewer Ordinance, some form of grease control is required at all food service establishments. All FSE's must comply with kitchen Best Management Practices (BMP) as a first measure to control grease.

#### A. Best Management Practices (BMP)

Best Management Practices (BMP) are standard operating procedures that sewer system customers and dischargers can use to greatly reduce or eliminate the fats, oils and greases entering the sanitary sewer system. The food service industry can provide FSEs with BMPs tailored to their specific type of establishment.

Following are general **BMP** that apply to most FSE's:

- **Spill Prevention** - Preventing spills reduces the amount of FOG that may reach a sewer system. Spills can be prevented by keeping clean and dry work surfaces and floors, preventing slipping and tripping, emptying containers before they are too full, covering grease and other containers during transport, and providing employees with proper tools (ladles, covered containers, etc.) for safe transport of FOG materials.
- **Dry Cleanup** - Remove food waste with dry-cleanup methods such as scraping, wiping and sweeping prior to using wet methods such as water. All food waste shall be scraped into garbage receptacles, never washed down drains. Never pour fats, oils or grease down sink drains.
- **Absorb FOG** - Use food grade paper to soak up oil under fryers, and use paper towels to wipe down work surfaces. Properly dispose of used papers in garbage receptacles. Do not rinse them in the sink.
- **Recycle** - Fryer grease and oils may be recycled by rendering companies. It may be a resource rather than a waste if handled properly.
- **Reduce** - Instruct kitchen staff to be conservative in their use of fats, oils and grease in food preparation and serving.
- **Clean** - Keep sink traps and work surfaces clean. Empty them frequently into appropriate refuse containers. Do not allow food waste to accumulate in sinks or on surfaces.
- **Maintain Grease Interceptors** - Proper cleaning and maintenance of grease interceptors is critical to their performance. Grease interceptors must be properly sized and utilized in order to be effective.

As per LOAPUD's Sewer Ordinance Exhibit 8.01A, waste discharged into a grease interceptor shall not exceed 140° F (60°C), and the use of chemical and/or biological agents that could be used to dissolve fats, oils and grease are not allowed. Many additional BMP's are listed on various web sites that may be useful to sewer system dischargers.

**B. Public Education Plan and Schedule**

LOAPUD has developed an implementation plan and schedule for a public education outreach program that promotes proper disposal for fats, oils and greases within the service area that is protective of the sewer collection system. The following table outlines the Public Education Plan and Schedule.

Table III.B.1  
Public Education Outreach and Schedule

Customer Category	Education and Outreach	Schedule
Food Service Establishments (FSEs)	Through the District's licensing program each identified FSE within the service area will be educated on the importance of proper FOG disposal, on the BMP's for commercial kitchens and on the consequences of improper FOG control. FSE's will be given copies of BMP's (as in Section III.A) and a poster to be posted in each FSE kitchen facility. (See attached poster)	This is an on-going program to identify and license each FSE within the District. This inventory and licensing program for existing FSE's shall be completed by December 31, 2009. As new FSE's apply for service in the coming years, each will be required to obtain a license through this program.
All Other Wastewater Customers	The District will provide all customers with information on proper disposal of FOG and other inappropriate material by way of billing inserts.	The District will make this information available to all wastewater customers in the system.

# **NO GREASE DOWN THE DRAIN!**

## **KEEP DRAINS FLOWING**

**WIPE FOOD AND GREASE  
OUT OF POTS BEFORE  
WASHING AND DISCARD  
WASTE INTO THE TRASH**



**COLLECT AND  
RECYCLE USED  
COOKING OIL**

**HAVE GREASE  
INTERCEPTORS AND TRAPS  
CLEANED ON A ROUTINE  
SCHEDULE**



**USE ABSORBENTS  
TO CLEAN UP  
GREASY SPILLS  
BEFORE MOPPING**



**WHEN KITCHEN DRAINS ARE FLOWING,  
BUSINESS KEEPS FLOWING TOO.**

EBMUD • Bay Area Pollution Prevention Group (BAPPG) • The California Fax, Oil, and Grease Work Group (Cal FOG) • The California Restaurant Association (CRA)

#### IV. LOAPUD REQUIREMENTS FOR GREASE INTERCEPTORS

As per Section 8.03 of the District Sewer Ordinance, some form of grease control is required at all food service establishments.

##### A. Installation

In accordance with Section 8.02 of the LOAPUD Sewer Ordinance, a **Food Service Establishment Wastewater Discharge License** is required for all businesses and individuals who operate or intend to operate a Food Service Establishment (FSE) and/or industrial-commercial food manufacturing facility within the district. These facilities include but are not limited to:

*Restaurants, delicatessens, coffee shops, bakeries, drive-in, fast food, take-out, doughnut shops, hospitals, markets, schools, churches, motels/hotels, recreation or reception halls and conference centers.*

This License allows the District to determine specific grease control needs for each establishment, provide them with guidance on grease control methods, help them improve Best Management Practices and meet the discharge requirements and ensure compliance with the California Plumbing Code (CPC).

All new or remodeled FSE's and any industrial-commercial facility where any grease may be discharged into a public or private sanitary sewer system must install an appropriately sized grease interceptor as specified by Chapter 10 of the CPC. For existing facilities, they must comply with this program within a 180 day period after the first occurrence of a transfer of ownership or issuance of a County Building Permit for the premises, and within 60 days of a wastewater backup or discharge due to grease buildup if caused in whole or in part from a discharge from the premises, or if the discharge exceeds the limits (300 mg/l grease) on three occasions in a twelve month period or after receiving written notice from the District of the necessity for installation of such facilities.

##### Design Standards:

Section 8.05 of the District Sewer Ordinance requires that grease control facilities must be designed, constructed and installed at the expense of the FSE/Owner. They must be designed by a California Licensed engineer, and plans including the size, type and location of each grease interceptor, trap or alternative pretreatment method, together with supporting calculations must be submitted to the District for review and approval. The type and size of grease control method employed by a FSE will be based upon the method identified in Chapter 10 of the CPC.

As per Sewer Ordinance Exhibit 8.01A, each grease interceptor shall be plumbed such that only kitchen waste shall flow through the interceptor. All other

wastewater including fecal and non-fecal sources shall be plumbed downstream of the interceptor. Interceptors shall be installed in such a manner that surface drainage may not enter, and they will not become air-bound. The cover and access ports shall be gas-tight and the interceptors shall be properly vented. No water-jacketed grease interceptor shall be approved or installed. Interceptors located in vehicle traffic areas shall be capable of withstanding an H-20 axle load or greater, depending upon location.

Sewer Ordinance Exhibit 8.01B provides specific design and installation requirements for the limited use of grease traps, but only if a variance to grease interceptors is granted by the District. Any such variance may be rescinded by the District if they determine that the grease trap is not providing adequate grease removal based on visual inspection and/or sample collection. Specific design and installation requirements for grease traps (when allowed) are described in Exhibit 8.01B. No more than four separate fixtures shall be discharged to any one grease trap.

The Ordinance requires that material for and construction of grease control systems must be in accordance with the requirements of the most recent edition of the California Plumbing Code (CPC), the codes of the State of California, regulations of the County of Butte, and Ordinances and Construction Standards of the District.

Sewer Ordinance section 8.06 and Exhibit 8.01A prohibit the installation of food waste disposal grinders at FSE's and provide a time-line for the removal of existing food waste disposal grinders at FSE's that discharge into the District's sanitary sewer system. Exhibits 8A and 8B of the Sewer Ordinance provide details for design, construction, installation and testing for grease interceptors, traps and devices.

#### B. Operation and Maintenance

Section 8.08 of the District's Sewer Ordinance requires that all FSE/Owners of grease interceptors and grease traps shall maintain the devices per the manufacturers' recommendations and in an efficient operating condition by periodic removal and proper disposal of the accumulated grease.

Specific maintenance requirements for grease interceptors are defined in Exhibit 8.01-A and for grease traps in Exhibit 8.01-B. As per Exhibit 8.01-A.F, grease interceptors shall be pumped by a State licensed waste hauler to a site or landfill facility designated to handle kitchen grease. All grease interceptors shall be cleaned a minimum of every 12 months or when the total volume of captured grease and solid materials displaces more than 25% of the wetted capacity of the primary interceptor compartment. Undersized interceptors may require more frequent pumping. When the grease interceptor is being pumped and cleaned, a

District inspector will witness the cleaning, if the inspector is available. The FSE is to give 24 hours' notice to the District before the scheduled cleaning.

Malfunctioning grease interceptor equipment must be pumped or cleaned within five (5) working days or repaired within 30 working days, unless immediate cleaning and repair is necessary as determined by the District. Malfunctioning grease traps or other alternative equipment must be pumped within 2 working days and repaired within 10 working days, or immediately at the Districts discretion.

All passive and automatic grease traps and other alternative pre-treatment devices shall be opened, inspected, cleaned and maintained a minimum of once per week, (every 7 days) or when the total volume of the captured grease and solid material displaces more than 20% of the capacity of the trap.

### C. Disposal of FOG

LOAPUD requires FSE's and other regulated dischargers to contract with a licensed hauler to clean grease interceptors and traps on a regular basis as per the maintenance requirements of LOAPUD Sewer Ordinance Chapter 8. Sewer Ordinance Exhibit 8.01 includes specifics of the requirements. The haulers shall have a valid registration certification for the transport of inedible kitchen grease as specified in California Food and Agriculture Code 19310-19317.

## **V. PERMITS AND ENFORCEMENT**

### A. Permits

In accordance with Section 8.02 of the LOAPUD Sewer Ordinance, a **Food Service Establishment Wastewater Discharge License** is required for all businesses and individuals who operate or intend to operate a food service establishment (FSE) and/or industrial-commercial food manufacturing facility within the district. These facilities include but are not limited to:

*Restaurants, delicatessens, coffee shops, bakeries, drive-in, fast food, take-out, doughnut shops, hospitals, markets, schools, churches, motels/hotels, recreation or reception halls and conference centers.*

Section 8.02 provides specific details for obtaining the Food Service Establishment Wastewater Discharge License.

### B. Inspection

Section 8.02.1 designates that the District will perform one visual inspection of the establishment's business sewer service lateral per year via closed-circuit

television, (or more frequently if deemed necessary by the District) to identify whether excess grease is entering the sewer lateral from the establishment.

Section 8.05.5 of the Sewer Ordinance requires all existing FSEs to install a sample port as per Figures 8.01 and 8.02 on sewer service laterals entering the District's sewer collection system. Sample ports must be accessible to the

District at all times. They must be located downstream of the interceptor and upstream of the non-kitchen waste flow tie-in. A clean-out shall be installed immediately downstream of the sample port for cleaning purposes and to allow for the introduction of a closed-circuit camera into the sewer service lateral for visual inspections. As per Section 8.09 of the Sewer Ordinance, the District ~~will~~ may obtain random samples from sample ports for the purpose of determining whether a FSE is meeting discharge requirements. District personnel will periodically inspect grease interceptors and food preparation areas. Internal inspections may be made at any time during normal business hand operation hours with or without prior notice. (8.01A.G.1)

Should the District's monitoring program indicate that grease control measures employed by a FSE are inadequate, either by way of visual inspection of the sewer, increased maintenance frequency by the District, or through samples taken from the sample port, the FSE will be notified that they must review their kitchen practices to ensure that best management practices (BMP's) are being followed and that grease control facilities are being properly maintained. As per Section 8.09 of the Sewer Ordinance the District will monitor these FSEs more frequently. If subsequent monitoring indicates that the problem persists and that grease continues to accumulate in the sewer lateral, the District will give written notice of non-compliance. Following notice of non-compliance, internal inspections may be made at any time during normal business and maintenance hours.

### C. Record Keeping

As per Exhibit 8.01-A.F, the FSE or discharger shall post and maintain a current grease interceptor and/or grease trap cleaning and maintenance log on the premises and shall have the log available for review by District personnel at all times. Receipts and bills of lading from the pumper/hauler and/or rendering service companies shall be retained for a minimum of 3 years. Grease reduction equipment that is either not functioning properly or has ceased to function must be reported to the District within 24 hours.

### D. Enforcement

Section 8.04 of the Sewer Ordinance addresses legal and administrative action for noncompliance with District and CPC regulations related to the control of fats,

oils, and grease. Action may include, but is not limited to the assessment of fees for investigation and follow up action. In addition, if it is determined that a sewage overflow or spill was caused by negligent discharge of fats, oils, or greases to the sanitary sewer system in a manner prohibited by the District, the discharger may face criminal penalties.

## VI. **LOAPUD TRACKING OF FOG RELATED COLLECTION SYSTEM PROBLEMS**

### A. Tracking FOG Related Problems

FOG related problems may be identified by any of the following methods:

- Through an onsite inspection of an FSE;
- Through random sampling of FSE sample ports for fats, grease and oil;
- Through a visual or CCTV inspection of the sewer;
- Through increased maintenance requirements attributable to FOG problems;
- Through a Sanitary Sewer Overflow attributed to FOG in the sewer.

Upon the District discerning that a FOG related problem exists, the District shall determine any and all upstream suspect sources of FOG and shall investigate further to pinpoint the origin of the problem. Following the identification of the problem source, the following source control response shall be implemented. A record shall be kept of the location, source, and resolution of all FOG related collection system problems.

### B. Source Control Response

As per Section 8.09.2 and 8.09.3 of the District's Sewer Ordinance:

Should the District monitoring program indicate that grease control measures employed by a FSE are inadequate, either by way of visual inspection of the sewer, increased maintenance frequency by the District, or through samples taken from the sample port, the FSE will be notified that they must review their kitchen practices to ensure that Best Management Practices (BMP) are being followed and that grease control facilities are being properly maintained.

To ensure that the FSE has resolved any problems and to achieve what is in the best interest of the FSE and the general public, the District will monitor these FSE's more frequently. If subsequent monitoring indicates that the problem persists and that grease continues to accumulate in the sewer lateral, the District will give written notice of non-compliance. Following notice of non-compliance, internal inspections may be made at any time during normal business and maintenance hours. District personnel may at any time inspect external facilities.



The District will obtain random samples from sample ports for the purpose of determining whether a FSE is meeting discharge requirements. Samples may also be taken when conditions reveal that grease may be entering the District's collection system by way of the FSE's sewer service lateral. Initial samples will be analyzed at no charge to the FSE. Should the discharge exceed the limits prescribed, follow up samples will be taken once corrective measures by the FSE are completed in accordance with the Sewer Ordinance, or as deemed necessary by the District, and all repeat analyses shall be billed to the FSE until the discharge limits are met.

**SECTION VIII - SYSTEM EVALUATION AND CAPACITY ASSURANCE  
PLAN**

## **SECTION VIII SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN**

The District has adopted the LOAPUD Sewer System Master Plan which includes an evaluation of the system's ability to meet current flow capacity requirements and forecasted future flow capacity requirements. Based on hydraulic modeling of the District's collection system and future flow projections based on the Butte County General Plan, the master plan identifies expansions and upgrades to existing facilities as well as proposed new facilities needed to assure capacity will be available for current customers and new development.

The District's Sewer System Master Plan is available online at:

<https://www.loapud.com/files/eb06dee1f/masterplancompleteadopted.pdf>

**SECTION IX - MONITORING, MEASUREMENT AND PROGRAM  
MODIFICATIONS**

## **SECTION IX – MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS**

Since 2007, the District has only had four reportable SSO's which averages less than one spill every three years. None of the spills were at repeat locations. Of the four, three resulted in 100% recovery of the volume spilled. The relative infrequency of events and corresponding lack of data does not lend itself to meaningful statistical analysis.

To effectively keep the SSMP up to date the District will monitor, measure, and modify the SSMP by doing the following:

- The District will maintain relevant information that can be used to establish and prioritize appropriate SSMP activities. Through educational training, trade journals and networking with others in the industry, the district will collect and maintain relevant information appropriate to SSMP activities.
- The District will monitor the program implementation and, where appropriate, measure the effectiveness of each element of the SSMP. This will be done as needed and reviewed annually, making any necessary revisions or modifications to enhance the program.
- The District will assess the success of the preventive maintenance program annually.
- The District will update the program elements as appropriate. This will be done by monitoring or performance evaluations and will be done as needed and reviewed annually.
- The District will identify SSO trends, including frequency, location, and volume. This will be done as needed and reviewed annually.

Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update shall be kept. These records shall be attached to the SSMP.

**SECTION X - SSMP PROGRAM AUDITS**

## **SECTION X – SSMP PROGRAM AUDITS**

The District will conduct internal audits of the SSMP Program. Since the District has less than 5,000 customers, and averages less than one (1) SSO per year, the audits will be done bi-annually. The audit will consist of a review of the SSMP Program to evaluate its effectiveness and District compliance with the SSMP requirements identified in this subsection. Also included will be identification of any deficiencies in the SSMP and steps to correct any deficiencies found. A report of the audit will be prepared and kept on file.

Upon completion of the first audit, the bi-annual auditing cycle will be evaluated and revised if necessary.

## **SECTION XI - COMMUNICATION PROGRAM**



## **SECTION XI – COMMUNICATION PROGRAM**

The District will communicate with the public on the development, implementation, and performance of the SSMP. Notice of SSMP Program evaluations and meetings, will be posted on the District Message Center or on the District's web site. These notices will invite the public to participate in the program development and participation.

The District shall also maintain open communications with SC-OR, the Regional Sewerage Treatment Plant, inviting their participation in the SSMP Program development and implementation.



## Manager's Report

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 11 – Request to Amend the Capital Expenditures Budget Due to Increased Cost for a New Service Truck

Included in the approved budget requests for the Fiscal Year 2021-22 District Budget, was a \$50,000.00 line-item for a new, gasoline powered, service truck. Due to economic conditions, the cost has increased considerably. While the projected cost at \$49,526.92 is still below the budget line item, an adjustment to the budget line item of \$5,000.00 is requested as a contingency measure.

### Attachment Included

*Recommended Action:* Increase the line item budget for a new service truck to \$55,000.00 from \$50,000.00.



Stock #:

VIN

Deal#: 0000000

August 16, 2021

## Vehicle Not Found

### LAKE OROVILLE AREA PUBLIC UTILITY D

Phone: 5305332000

Salesperson:

Email:

#### Sale Information

Selling Price \$45,631.55  
 Accessories \$0.00  
 Rebates \$0.00  
 Service Contract \$0.00  
 Gap \$0.00  
 Net Trade \$0.00  
 Fees \$123.75

#### Cash Option

Sales Tax

\$3,771.62

Balance Due Of

\$49,526.92

#### Finance Option

Initial Investment \_\_\_\_\_

*2021 F250 4x4 Super Cab*

*utility box*

*power group*

*CRUISE*

*TRAILER TOW*

*\$ 49,526.92*

*out the door*

#### Lease Option

Initial Investment \_\_\_\_\_

#### Trade Information

Trade Allowance \$0.00  
 Trade Payoff \$0.00  
 Net Trade \$0.00

Please submit this worksheet to management for review. I understand 1) This worksheet is neither an offer nor a contract and is not binding on the customer or the dealership. 2) No offer to purchase any vehicle is binding until accepted in writing by an authorized sales manager and 3) Sales consultants cannot obligate or bind the customer or the dealership.

I hereby authorize the dealership to conduct an investigation of my credit and employment history and release such information to banks, lenders and credit agencies.

Customer signature: \_\_\_\_\_

Dealership Approval: \_\_\_\_\_



## Manager's Report

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 12 – Request to Amend the Capital Expenditures Budget Due to Increased Cost for a Pump Overhaul at Hanging Tree Lift Station

Included in the approved budget requests for the Fiscal Year 2021-22 District Budget, was a \$6,055.34 line-item for overhauls to the Gormann-Rupp Pumps at the Hanging tree Lift Station. After pre-construction review of the requirements for the lift station pumps, it was discovered that the quotes received to perform the necessary work did not include the possibility of a full overhaul. An increase to \$20,000.00 in this budget item is requested to allow for the possibility of full overhaul and replacement of the pumps rotating assemblies.

### Attachment Included

*Recommended Action:* Increase the line item budget for pump overhaul at Hanging Tree Lift Station from \$6,055.34 to \$20,000.00.



7 Pamaron Way, Suite A, Novato  
 CA. 94949  
 Tel: 415-884-4501  
 Fax: 415-883-3961

# Quotation

Date	Quote #
7/12/2021	7429

**THE PUMP SPECIALISTS**

Bill To

Lake Oroville PUD  
 1960 Elgin Street  
 Oroville, CA. 95966  
 accts\_payable@loapud.com

Ship To

Lake Oroville PUD  
 1960 Elgin Street  
 Oroville, CA 95966  
 ATTN: VINCE

FOB	Terms	Account #	Ship Via
FACTORY	Net 30		B/W PP & ADD

Item	Description	Qty	Price	Total
38615-087 11010	IMPELLER DI MF	4	710.85	2,843.40
46513-153	1 7/8 CTG SEAL ASSY	4	458.15	1,832.60
10959G 20000	GASKET CK	4	2.90	11.60
S1917	OIL SEAL	12	27.00	324.00
38683-473 18000	BEARING CAP GASKET VEG FI	4	4.55	18.20
S1030	BALL BRG DBL-ROW	4	197.50	790.00
S616	BALL BEARING	4	89.65	358.60
10278 15030	IMP WASHER CRS	4	10.30	41.20
DM1004S 15991	SOC HD CAPSCR STL	4	2.70	10.80
S1676	O-RING BUNA CTD	4	9.35	37.40
13131-3 17040	ADJ SHIM SST .062"	32	1.40	44.80

	<b>Subtotal</b>	\$6,312.60
15% Restocking Fee on All Returned Items Shipping and Handling not included in Quotation	<b>Sales Tax (8.25%)</b>	\$520.79
	<b>Total</b>	\$6,833.39





# T SERIES™

38818-040

## SELF-PRIMING CENTRIFUGAL PUMP

INSTRUCTIONS FOR STARTING:  
FILL PUMP CHAMBER WITH LIQUID TO BE PUMPED.  
DO NOT RUN PUMP BACKWARDS.  
DO NOT RUN PUMP DRY.

WHEN ORDERING REPAIRS GIVE THE FOLLOWING:

SERIAL NO.

MODEL NO.

IMP. DIA.

1242187

T6A3S-B /WW

STD

MADE IN U.S.A. BY  
**THE GORMAN RUPP CO.**  
MANSFIELD, OHIO

© THE GORMAN-RUPP CO. 1985

PATENTS:

U.S. 3447810, 3898014, 4815747

CANADA 997,210

JAPAN 976,733

SOUTH AFRICA & TRANSKEI 74/5463, 88/7942

AUSTRALIA 476,857, 24507/88

NEW ZEALAND 175,244



## **Manager's Report**

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 13 – Closed Session – Government Code §54957.6

CONFERENCE WITH DISTRICT LABOR NEGOTIATOR REGARDING THE  
UNREPRESENTED POSITION OF GENERAL MANAGER (Pursuant to  
Government Code Section 54957.6)





## **Manager's Report**

To: Board of Directors  
From: Scott McCutcheon, General Manager  
Date: September 14, 2021  
  
RE: Item No. 14 – SC-OR Commissioner's Report

Included in your packet (if available) are the August 2021 Minutes of the Regular Meeting of the Sewerage Commission – Oroville Region. Directors Fairbanks and Mastelotto will present the SC-OR report if any information is available for reporting.

Attachment Included



## **Manager's Report**

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 15 – BCSDA Representatives and LAFCo Commissioners  
Report

### **15.1 BCSDA**

No report at this time.

### **15.2 LAFCo**

The Butte LAFCO agenda for the September 2, 2021 regular meeting is attached for general information purposes. Also included is Agenda Item 6.1 - Executive Officer's Report. President Sharman will report on any LAFCO business if there is any to report.

Attachment Included

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**BUTTE LOCAL AGENCY FORMATION COMMISSION**  
1453 DOWNER STREET, SUITE C, OROVILLE, CALIFORNIA 95965  
TELEPHONE (530) 538-7784 FAX (530) 538-2847

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**REGULAR MEETING NOTICE OF THE COMMISSION**

Location: **Butte County Board of Supervisors Chambers,  
25 County Center Drive, Oroville, California**  
Date/Time: **Thursday, September 2, 2021 - 9:00 a.m.**

**SPECIAL NOTICE**

Based on guidance from the California Department of Public Health and the California Governor's Office Order N-29-20 issued on March 17, 2020, in order to minimize the spread of the COVID-19 virus, Butte LAFCo meetings are not open to the public at this time. The **September 2, 2021** LAFCo meeting will be conducted via Zoom. The Commission meeting can be accessed by the public as follows:

**JOIN MEETING:**

Please click the link below to [join](#) the webinar or utilize the telephone option (audio only)

<https://us02web.zoom.us/j/87021925426?pwd=M0Q5c2NnMUhGeXFZTY95RHYvcVFndz09>

Passcode: **373979**

2. Or Telephone:  
Dial(for higher quality, dial a number based on your current location):  
US: +1 669 900 9128  
Webinar ID: **870 2192 5426**  
Passcode: **373979**

**PUBLIC COMMENTS:**

Aside from participating in the Zoom meeting, comments from the public on the agenda items will also be accepted :

1. Via email to Commission Clerk ([jstover@buttecounty.net](mailto:jstover@buttecounty.net) )
2. Via phone (530-538-7784)
3. Mail to Butte LAFCo, 1453 Downer Street, Suite C, Oroville, CA 95965.

**MEETING PARTICIPATION:**

1. When you join the Zoom meeting, please enter your email address and your name so that you can be identified to speak.
2. To provide comment, you will need to use the raise hand function in Zoom. For those accessing the meeting from a computer or smartphone, that raise hand feature can be selected by clicking or tapping it. For members of the public utilizing a telephone (audio only) to access the meeting, you can use the raise hand feature when the item for which you desire to provide comment is called by pressing \*9 on your keypad to raise your hand. When it is your turn to speak, you will be called upon by the last 4 digits of your phone number, if available and asked to identify yourself for the record.

All comments received will be conveyed to the Commission for consideration during the meeting. All meetings conducted under these circumstances will be recorded and placed on the LAFCo website ([www.buttelafo.org](http://www.buttelafo.org)) for public access and accountability.

**THANK YOU:**

The Commission appreciates the public's adaptation and patience during this crisis and will endeavor to refrain from placing non-essential items, or matters of significant public interest on the agenda until such time greater public participation can be reasonably accommodated.

# AGENDA

ALL ITEMS ARE OPEN FOR PUBLIC COMMENT

1. **CALL TO ORDER**

1.1 **Roll Call**

2. **CONSENT AGENDA**

2.1 **Approval of the Minutes of June 3, 2021**

3. **NOTICED PUBLIC HEARINGS**

3.1 **21-05 - City of Oroville – Feather Avenue Annexation No. 2**

The Commission will consider the annexation of two parcels (APNs 030-360-091 & 030-360-092) and adjacent road right of ways totaling approximately 26 acres to the City of Oroville for the purpose of receiving municipal services for a proposed 97 lot residential subdivision. The territory is located in the Thermalito area. **ACTION REQUESTED:** Adopt Resolution No.7 2021/22 approving the annexation subject to the terms and conditions within the staff report.

4. **REGULAR AGENDA**

4.1 **Items Removed from the Consent Agenda** *(If any)*

4.2 **Discussion of Drought Issues**

The Commission will consider what actions, if any, that LAFCo could take to assist our local agency/special district partners in addressing the very real need for alternative sources of potable water. **ACTION REQUESTED:** Provide direction to Staff to offer assistance to affected local agencies and communicate with the State Water Resources Control Board of the need to be flexible and allow LAFCo to address extensions of service/annexation where feasible.

4.3 **Paradise Irrigation District Options Study**

The Commission will receive an update from Staff and discuss the current status of the Paradise Irrigation District Options Study being prepared by the Sacramento State Office of Water Programs. **ACTION REQUESTED:** Provide direction to staff.

5. **PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA** *(If any)*

6. **REPORTS AND COMMUNICATION**

6.1 **Executive Officer's Report**

6.2 **Correspondence** (None)

7. **ADMINISTRATION.** The Commission will discuss and provide direction to the Executive Officer on administrative matters relating to the operation of the Commission.

7.1 Due to a conflict with the CALAFCO Conference on October 7, 2021, the Commission will need to pick a new meeting date for October or cancel the meeting.

8. **ADJOURNMENT** Adjourn to **TBD** in the Board of Supervisors Chambers.

**TO THOSE WHO PARTICIPATE IN LAFCO PROCEEDINGS:** California Government Code Section 84308 requires you to disclose campaign contributions to LAFCO Commissioners if they amount to \$250 or more and were made within the last twelve months. Please announce your applicable campaign contributions when you speak.

\* Any disabled person needing special accommodation to participate in the Commission proceeding is requested to contact LAFCO staff at (530) 538-7784 prior to meeting and arrangements will be made to accommodate you.

\* Any person may address the Commission during the "Public Comment." Please see the rules regarding public comments below.

\* Copies of Agenda documents relative to an Agenda item may be obtained from the Clerk of the Commission at a cost of \$.10 per page.

#### **RULES APPLYING TO PUBLIC COMMENTS**

1. *Members of the public wishing to address the Commission upon any subject within the jurisdiction of Butte LAFCO may do so upon receiving recognition from the Chair at the appropriate time.*
2. *Comment on items not on the agenda should be made at the time indicated for "Public Comment" on the agenda. The Commission may not act on any matter so raised and will have to put off action until a meeting at which the matter can be put on the agenda.*
3. *Comment on specific agenda items may be made during the discussion of that agenda item, upon recognition by the Chair.*
4. *After receiving recognition, please stand and state your name and address before making your presentation, so that the Clerk may take down this information.*
5. *All documents to be presented to the Commission will be given to the Clerk of the Commission (original and eleven copies) prior to Call of Order of meeting. Such documents will be distributed to the Commission and made available for public inspection.*

*This agenda was mailed to those requesting notice and posted 72 hours in advance of the meeting at the following locations: Butte County Administration Building & LAFCo front entrance.*

## M E M O R A N D U M

**TO:** Local Agency Formation Commission

**FROM:** Stephen Lucas, Executive Officer

**SUBJECT:** **Agenda Item 6.1 - Executive Officer's Report**

**DATE:** August 26, 2021 for the meeting of September 2, 2021

**ADMINISTRATION:**

1. The terms of Special District Commissioners McGreehan (Regular Non-Enterprise) and Bradley (Alternate) technically ended on May 31, 2021. Staff issued ballots to each Special District in February with an initial due date of May 14, 2021 at which time Staff had received only 14 ballots. The election was extended to July 2, 2021 and again to September 3, 2021. At present we have received 20 ballots. Current commissioners will remain seated until a quorum of 21 districts vote.

**PROJECT/GENERAL NOTES:**

The following issues/proposals are at various stages of being reviewed, discussed and/or considered:

- **\*\*NEW\*\*** A new citizens committee has been formed in Paradise called Hold Our Water (HOW). The reported goal of this committee is to bring together the Town, its residents, and PID to prevent a takeover of PID water assets from state or private interests who want to control our “Stranded Asset”, and constrain our ability to recover from the destruction caused by the fire. The Executive Officer was asked to assist the Committee with understanding the LAFCo process and the various reorganization options available to the PID and Town. This subject is closely related to the ongoing Paradise Irrigation District Options Study.
- ***Town of Paradise/City of Chico Sewer Line*** – The Town of Paradise is exploring options to provide wastewater treatment services to its existing commercial land uses that are limited from expanding due to sewage disposal constraints. The preferred option is conveying the Town’s wastewater directly to the City of Chico’s existing Water Pollution Control Plant. This alternative would represent an extension of services (GC56133) by the City of Chico outside of its jurisdictional and sphere of influence boundaries requiring LAFCo approval. Staff recognizes that this proposed project is of significant value to the Town and has been a long standing goal and it is important to have the Commission’s involvement at the earliest stages of consideration. The Town staff have presented the proposal to the Chico City Council, the Board of Supervisors and LAFCo and the City of Chico has agreed to proceed with the sewer options study. The *Paradise Sewer Regionalization Project Advisory Committee* consisting of 2 councilmembers each from the Town of Paradise and City of Chico and guided by State Water Board staff will be evaluating the proposal as it proceeds. The Committee’s efforts can be tracked at <https://paradisesewer.com>. The group initially met on March 8, 2021 and again on April 12, 2021 via Zoom. Most of the discussion to date has involved logistics and expectations for the project. Shown below are both the *Project Schedule* and the anticipated *Project Costs*. Staff is concerned that the “Project Schedule” does not show a step in the process for LAFCo review and consideration. The Committee meets again on May 10, 2021.

Projected costs are estimated to be approximately \$184 million: \$2M for environmental studies, \$30M for design and right-of-way acquisition, \$152M for construction. The Town has released a Notice of Preparation (NOP) for the Environmental Impact Report (EIR) with comments due by June 3, 2021. Staff prepared and submitted NOP comments on May 20, 2021 and met with Town staff and consultants on May 24, 2021 to discuss the comments and the process ahead. **\*\*NEW\*\*** Town staff have provided the July 2021 monthly written update. (**Attachment 1**) and the City of Chico and Town engineering staff continue to develop a sewer agreement that will be the backbone of the proposal.

- **Proposed Tuscan Water District** – On September 2, 2020, Executive Officer circulated a Notice of Intent to Circulate Petition submitted by the proponents of the proposed Tuscan Water District formation. The proponents submitted the petitions to the Executive Officer for review on February 22, 2021. The Executive Officer and Legal Counsel thoroughly reviewed each petition and its supporting ownership documents and determined the petition to be sufficient to support an application to LAFCo and Certificate of Sufficiency was issued on April 8, 2021. **\*\*NEW\*\*** The petitioners subsequently submitted an application to LAFCo on June 22, 2021. The application is in the review stage as comments are received. We await comments from the Butte County Water Commission (Sept 1 agenda), the Vina Groundwater Sustainability Agency (Sept 8 agenda) and the Butte County Board of Supervisors (Sept 14 agenda). The debate in the public/social media has commenced and a new group has formed called Butte Water Watch which held a meeting on August 24 at the Masonic Lodge in Chico which was clearly focused on opposing the TWD formation and at which staff believes much misinformation was dispensed.
- **City of Oroville – Contractual Services Agreement with CALFIRE.** At its March 2, 2021 meeting, the City of Oroville directed its staff to sign a Letter of Intent with CALFIRE to begin negotiations for the possible transfer of fire protection services from the Oroville Fire Department to CALFIRE. This contractual agreement is required to be approved by LAFCo pursuant to Government Code Section 56134. Staff met with representatives of CALFIRE and the City of Oroville on April 12, 2021 to discuss the necessary steps to consider a contractual agreement. **\*\*NEW\*\*** The City held a public hearing in August and formally requested CALFire make application to LAFCo for the extension of fire services to the City of Oroville. CALFire is currently preparing the necessary documents for submittal to LAFCo.
- **City of Biggs – Annexation Plan** – The City of Biggs has utilized its share of SB2 planning funds to develop a long range annexation plan that is anticipated to occur in three phases and be driven by market demand for new homes. City staff have worked very cooperatively with LAFCo staff during this process.
- **Miocene Canal** - The destruction of the upper Miocene Canal by the Camp Fire has dewatered the middle and lower Miocene, causing great disruption to landowners dependent on the water supply for their farms/residences and the environment dependent on canal leakage over the decades to thrive. PG&E initially refused to repair the canal infrastructure, but entered a plea agreement for its criminal actions resulting in PG&E providing up to \$15 million over five years to restore water to the middle canal. A number of options were considered to restore the Miocene flow and PG&E has tentatively decided to replace the destroyed upper Miocene ditch/flumes with pipes to carry the Feather River water to Kunkle Reservoir. This effort is anticipated to be completed by November 2021. It remains an open question as to how this water flow will be managed/maintained in the future with one possible scenario being to form a special district to finance and manage any future facilities. Staff continues to participate in discussions. Staff will continue to monitor and assist this effort towards the universal goal of re-establishing water flow in the Miocene Canal. Staff

participated in the Miocene Working Group monthly call on May 20, 2021 which covered emergency water deliveries from Paradise Irrigation District (PID) which would require LAFCo review, the ongoing design of a replacement project for the Upper Miocene and the belief by PG&E that they are not legally bound to redevelop the destroyed Miocene facilities, but only required to restore water deliveries (by any means possible).

- **Oroville Region Sewer and Water Service Providers MSR** - The State Department of Housing and Community Development (HCD) has awarded a \$100,000 SB2 Planning Grant to Butte County to contract with LAFCo for the development of a MSR update for backbone service providers in the Oroville region, including the SFWPA, LOAPUD, TWSD and SCOR. LAFCo entered into an Agreement with SWALE Inc. to conduct the study and prepare the documents. A kick-off meeting was held on March 17, 2021 with all the affected Districts staff. The final MSR is expected to be completed in October 2021. The Consultants have now met with staff with from TWSD, SFWPA, SCOR and LOAPUD one on one and completed Requests for Information.
- **County of Butte - Tuscan Ridge Planned Development (PUD21-0001)** - The 163 acre site on the south side of Skyway about 3 miles west of Paradise and 4 miles east of Chico which was used as staging area for Camp Fire workers in 2018/19 and was previously the former Tuscan Ridge Golf Course. The proposal includes a 98 acre planned development he PUD of 165 homes, limited commercial space, golf related facilities and open space. The site is to be served by an existing on-site well for domestic water and an existing permitted on-site wastewater treatment system, both of which are proposed to be managed by a newly formed Community Service District (CSD) that would require LAFCo approval. At this time, the County informs us that the application submittal is incomplete and comments will be requested once all documents are received. Given the issues related to a conceptual potable water pipeline and sewer line to Chico along the Skyway, this proposal does cause concerns related to service provisions, growth inducement and logical/orderly development patterns.
- **City of Gridley MSR/SOI Update** – The City has expressed an interest in updating its MSR and SOI Plan in anticipation of new development proposals being considered. Staff anticipates that the City and LAFCo may enter into a Letter Agreement to conduct this effort, similar to agreements with the City of Chico and City of Oroville.
- **El Medio Fire Protection District** – LAFCo was contacted by the County of Butte and City of Oroville in August 2020 to discuss concerns about the functionality of the El Medio Fire Protection District (EMFPD), primarily a lack of adequate funding. The EMFPD tax measure failed in November, 2020, and the District Board met on November 11, 2020 and unilaterally decided to “shut the doors” and lay-off its employees, under the belief they could self-dissolve. The Board met on November 19 and issued lay-off notices that took effect on Dec 25 at which time the District reasonably ceased to provide its empowered services. As directed by the Commission, Staff has engaged all parties to explore the issues at hand and the options available for District reorganization including contractual agreements, converting to a subsidiary district (governed by City Council) and dissolution. The EMFPD Board requested the City of Oroville to execute a contract for services and both the local fire unions have provided written support for a contractual agreement. Staff coordinated a meeting on December 4, 2020, with representatives from the District (Board Chair, Chief, Fire Captain), the County (Fire Chief, Deputy Administrative Officer) and the City of Oroville (Public Safety Director, Battalion Chief). Staff discussed various options that could be considered by all parties. There seemed to be preliminary concurrence that the City and the District would - prior to the December 25 shutdown - approve a contractual agreement or MOU that would allow the City to provide services to the District for payment. This effort was unsuccessful



and the District effectively shut down operations on December 25, 2020. The Oroville City Council held a special meeting on January 28, 2021 to receive a presentation from CALFIRE related to the City contracting for fire services similar to Paradise, Biggs, Gridley and the County. This presentation included contingencies to address the issue of the EMFPD. The resolution of this concern will take considerable effort by all parties to find a reasonable outcome that results in both effective fire protection services and respects the concerns of the residents of all agencies. The issue cannot be solved alone by LAFCo, but most likely will require LAFCo action to resolve. Staff will remain actively involved and update the Commission regularly.

- ***Paradise Irrigation District/Financial Recovery*** - The State Water Resources Control Board (SWRCB) in cooperation with Sacramento State University, Office of Water Programs (CSUS-OWP), continues to proceed with the Options Study for the Paradise Irrigation District. The group of stakeholders, including LAFCo, meets regularly to discuss the process and the path forward. Possible options include, the District merging with the Town of Paradise, reorganizing with another public or private water purveyor, expanding the District's customer base (Miocene residents, Butte Valley, Chico), temporary raw water transfers, Chico intertie, new businesses (bottled water, hydro power, fisheries help), partnership with the Town to operate the proposed sewer system, and rate increases. On 2/5/21, GEI Consultants, Inc. was selected to prepare the Options Study and the OWP is completing contract negotiations with GEI. Work is underway with an anticipated completion date of November 2021. Staff will keep the Commission apprised of this process.
- ***Butte County Upper Ridge Community Plan (URCP)*** - The URCP would be an extension of the Butte County General Plan and provide policy guidance for the areas within the unincorporated portion of Butte County north of the Town of Paradise, including Magalia and Paradise Pines, collectively known as the *Upper Ridge*. The 2018 Camp Fire destroyed 2,158 homes within the area, especially in the lower Paradise Pines subdivision. The Upper Ridge Community Council (URCC) has identified benefits from a community plan, such as fire safety, evacuation routes, land use planning, community and economic development, affordable housing, infrastructure, recreation, and quality of life. Past interactions with the URCC have included questions concerning governance options and service provision options such as community services district or county service area, which would require LAFCo action to accomplish. Staff will continue to monitor the process for LAFCo interests. More information can be found at [www.buttecounty.net/dds/urcp](http://www.buttecounty.net/dds/urcp)
- ***County of Butte, North Chico Village Vision Plan*** – The County in cooperation with the City of Chico, is developing an update to the "Village Core" in the 1995 North Chico Specific Plan (NCSP). The mixed-use North Chico Village, known as the heart of the NCSP, is a 484-acre portion of the larger 2,980-acre NCSP. The site is relatively flat and extensively planted with orchards at this time. Current zoning would support approximately 2,000 dwelling units, the area has been identified for urban development by both the City and County's General Plans since 1995, but has yet to be developed due to a lack of infrastructure and financing. The planning effort includes a "re-visioning" of the North Chico Village with an emphasis on increased residential development and density. The project will update existing constraints, provide for a mix of housing types, including multi-family and low-income. Staff will be tracking this project as it will require annexation to the City of Chico in order to build-out with full City services provided. The following schedule has been approved by the County:  
Project Kick-Off - The North Chico Village Vision Plan and Specific Plan Update Project Kicked off in September 2020.  
Existing Conditions - The consultant team will gather existing conditions to understand the opportunities and constraints for the project.

Community Workshop #1 (10/28/21) - In the first workshop, participants will explore ideas, needs and goals related to the community and big-picture “what if” questions about the future of the site.

Community Workshop #2 (11/18/21) - In the second workshop, the project team will present the best practices and solicit input on which ideas might have applicability for the North Chico Village site. The majority of time in the second workshop will be devoted to small group discussions where participants will brainstorm and map their ideas for the North Chico Village.

Community Workshop #3 (12/9/21) - In the third workshop, the project team will return with several alternative concepts for the North Chico Village that combine the themes and ideas from the prior workshop and solicit feedback on relative merits for the alternatives. Following the third workshop, the project team will integrate the feedback into a Draft Specific Plan update.

BOS Workshop/Specific Plan Update (5/25/21) - The consultant team will incorporate community and stakeholder input into an updated Specific Plan document to present to the Board of Supervisors.

More information can be found at [www.northchicovillage.com](http://www.northchicovillage.com)

- **Drainage/Reclamation District MSR Actions** – The Drainage and Reclamation Districts MSR/SOI Plan adopted in 2018 called for a number of possible reorganizations among drainage districts. Staff has met with district staff and initiated a process to consider the dissolution of Drainage District No. 2 as it is completely overlaid by Butte Creek Drainage District and the detachment of territory from Butte Creek Drainage District that is overlaid with District 100. These actions will have no impact to current services, but will rather clean-up old boundaries that no longer make sense.
- **Thermalito Sewer and Water District** - Sphere of Influence Amendment and Annexation of the state owned clay pits recreation area southeast of the Oroville airport along Larkin Road. The State has yet to resolve a conflict between the State Parks Department and Department of Fish and Wildlife who share authority over the affected territory.
- **County of Butte** - Expansion of Powers for CSA 164 to add fire protection services. The County has placed this effort on hold.
- **City of Oroville MSR Update** – The City of Oroville is starting the process to evaluate its growth goals and has determined that the City needs to update its SOI to accommodate new development goals and at the same time update its MSR to reflect its current service capabilities and financial position. The City has requested LAFCo update its MSR at City expense and executed a Letter Agreement with LAFCo to prepare the MSR update. The City has entered into a contract with Policy Consulting Associates to complete the project under LAFCo supervision. The administrative draft is currently being prepared.

#### **CALAFCO:**

- The CALAFCO Board of Directors, based on the rollback of statewide COVID restrictions, determined to move forward with 2021 Annual Conference in Newport Beach (John Wayne Airport) October 5-7, 2021. At this juncture, CALAFCO is evaluating whether to carry-on with the Conference as set based on low registration numbers due to COVID concerns and anticipated COVID restrictions.
- The CALAFCO Quarterly Newsletter is provided for review (**Attachment 2**)

- The Executive Officer, on the behalf of CALAFCO, was invited to be a panelist for the Wildfire and Water Supply in California webinar hosted by the University of California, Institute for Water Resources on September 29, 2021.

**LEGISLATION:** The CALAFCO Legislative Report is attached for review (*Attachment 3*)

**APPLICATION ACTIVITY:**

APPLICATION ACTIVITY								
<i>Project Status As of August 26, 2021</i>								
File	Applicant	Project Name	Date Application Received	Certificate of Filing	LAFCO Hearing Date	Certificate of Completion	SBE Submittal Date	Additional Comments
11-06	Butte County	CSA No. 114 - Expansion of Powers	02/02/11	N/A	pending	N/A	N/A	Incomplete - On Hold
18-09	TWSD	Clay Pit State Recreation Area Annexation						On hold. Incomplete Application
19-12	County	CSA 158 - Mandville Park Subd. Annex	05/02/19	05/29/19	10/03/19			Approved w/ conditions - 218 Hearing
20-06	OMAD	Dissolution / Annexation to BCMVCD	01/21/20	02/06/20	08/06/20	08/17/21		Waiting for TRA Statement
20-08	Oroville	Municipal Service Review Update (MSR)	05/20/20	N/A				In progress
20-09	LAFCO	Oroville Region Sewer & Water MSR	N/A	N/A				In progress
21-05	Oroville	Feather Avenue Annexation No. 2	02/25/21	06/10/21	09/02/21			In progress
21-06	Landowners	Tuscan Water District Formation	02/22/21					In progress
21-07	SFWPA	Gold Avenue Annexation No. 1	03/15/21	04/09/21	05/06/21	07/27/21		Approved - Waiting for SBE form
22-01	SFWPA	Dunstone Drive Annexation No. 1	08/06/21					Incomplete
22-02	SFWPA	Long Bar Road Annexation No. 1	08/06/21					Incomplete
22-03	SFWPA	Pioneer Trail Annexation No. 1	08/06/21					Incomplete

- Attachments: 1. Town of Paradise Sewer Update Memorandum – July 30, 2021  
 2. CALAFCO Quarterly Report  
 3. CALAFCO Legislative Report – 4/29/21

# Memorandum

## *Paradise Sewer Project*



**Subject:** July 2021 Monthly Status Report for Paradise Sewer Project to Butte County Agencies  
**Date:** July 30, 2021  
**Authors:** Marc Mattox (Town of Paradise), John Buttz (HDR)

This monthly memo is intended to be a high level summary of activities for the purpose of regular communication with Butte County agencies and to identify any need for formal Board presentations. For project information, please see [www.paradisesewer.com](http://www.paradisesewer.com).

### **Efforts for Past Month:**

- Finalized the “Scoping Report” summarizing the May scoping period for the Environmental Impact Report (EIR). The report will be posted to [www.paradisesewer.com](http://www.paradisesewer.com).
- Continued analysis efforts the Draft EIR. Finalized cultural field studies. Estimated construction impacts. Updated Project Description and Alternatives sections.
- Continued to update public website ([www.paradisesewer.com](http://www.paradisesewer.com)).

### **Efforts for Next Month:**

- The Central Valley Regional Water Quality Control Board (Regional Board) hosts meetings of the Sewer Regionalization Project Advisory Committee (SRPAC). At it’s June 14<sup>th</sup> meeting, the Committee decided to shift to a meeting frequency of once every two months, with the next meeting planned for August 9, 2021 at 1:00 pm. It will be held in-person at the City of Chico’s council chambers. Information about SRPAC meetings can be found at [www.paradisesewer.com](http://www.paradisesewer.com).
- Continue analysis efforts on the Draft Environmental Impact Report (EIR).

### **Requests/Interactions with County Agencies:**

- EIR field work would benefit from access to several private parcels in south Chico (outside of the city limits). We would like to continue to explore potential rights-of-entry requests for those parcels.

# News from the Board of Directors CALAFCO QUARTERLY

August 2021



A message from the Executive Director

Greetings from your CALAFCO Board of Directors and Executive Director. It's summer and a hot one it is. As the drought continues, wildfires begin to rage, and we continue to deal with the pandemic, we hope everyone is staying healthy and safe

This Third Quarterly Report of 2021 will begin by highlighting the news in our CALAFCO family first, followed by Association updates. Happy reading!

## LAFcos in the News

### Congratulations on these retirements

We want to congratulate two long-time LAFCo leaders on their retirements. Their contributions to CALAFCO and to LAFcos statewide are far too numerous to list here. Needless to say, they both leave huge shoes to fill and will be greatly missed. We wish them both all the best in their retirement!



After a 33-year career in local government, **Don Lockhart**, Sacramento LAFCo Executive Officer, retired at the end of July. Don began his local government career in Calaveras, then after 12 years at the City of Sacramento (where he processed his first annexation), he joined the Sacramento LAFCo team in

2002. Don became the Executive Officer in 2017. Don also served as CALAFCO Deputy Executive Officer in 2008 and 2011.

Also calling it time to retire this month is Placer LAFCo Executive Officer **Kris Berry**. Her local government career began 36 years ago in Monterey County as a Planner, and after 17 years she joined the Monterey LAFCo team. She's been the Placer LAFCo EO for well over 16 years. Kris also served as CALAFCO Deputy Executive Officer in 2016-17.



### Napa LAFCo moved offices



**Napa LAFCo** recently moved offices. The new address is 1754 Second Street, Suite C, Napa, CA 94559. Executive Officer **Brendon Freeman** thanks **Kathy Mabry**, Commission

Secretary, who he says, "Did most of the heavy lifting in terms of finding the office and coordinating moving logistics".

### Sacramento LAFCo Welcomes New Executive Officer

Sacramento LAFCo announced the hiring of **José Henriques** as the new Executive Officer. Most recently, José was the Executive Officer of El Dorado LAFCo.

### El Dorado LAFCo Announces Interim Executive Officer

**Erica Sanchez** has transitioned to the Interim EO position for El Dorado LAFCo, with the departure of José.



## CALAFCO Educational Events

MARK YOUR CALENDARS FOR THESE UPCOMING CALAFCO EDUCATIONAL EVENTS!

### CALAFCO 2021 ANNUAL CONFERENCE

Join us **October 6-8** at the **Hyatt Regency Newport Beach John Wayne Airport** for the 2021 Annual Conference. It's been so long since we've gathered in person and the time is finally here! All Conference details including info about the program, registration and hotel reservations can be found on the CALAFCO website at [www.calafco.org](http://www.calafco.org). **Deadline to register for the Conference is September 17 and hotel reservation cutoff date is September 6.**



### CALAFCO UNIVERSITY

**CALAFCO University** We are pleased to continue offering webinars at no cost to our members. During the month of August we are featuring a very special 4-part series on **Fire and EMS Agencies: Basics, Challenges and LAFcos' Role & Responsibility**. The first three sessions feature diverse and highly experienced panels that are focusing on the various service models and types of services offered by these unique agencies, how to conduct a thorough evaluation of services, and what's involved in changing contracts (§56134). The final session will present three very different case studies from urban, suburban and rural LAFcos.

# News from the Board of Directors

## CALAFCO QUARTERLY

August 2021  
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Join us on September 1 for another session on *Forming a CSD*. Details for all CALAFCO University courses are on the CALAFCO website.

### CALAFCO Board of Directors

#### CALAFCO BOARD ACTIONS

The Board met virtually on July 30 with a full agenda. Under the leadership of *Chair Mike Kelley*, the Board took a number of actions.



- ✓ **The FY 2020-21 final year-end budget was presented.** The Board received the year-end fiscal report which includes a net balance of \$69,986. For the first time, CALAFCO had to sustain itself solely on member dues as there was no Staff Workshop, Conference or CALAFCO U revenue. Savings were realized in many operational areas.
- ✓ **Updated Policies for Sections III and IV of the current CALAFCO Policies were adopted.** One of the goals for 2021 is to conduct a comprehensive review of CALAFCO Policies, considering two sections per quarter. This is the second of a three-phase update process. The updated policies can be found on the CALAFCO website.
- ✓ **Associate member survey was presented.** CALAFCO recently conducted a survey of our Associate members to get feedback on membership services provided and how we can enhance our partnership value with them. Staff will continue to gather information from our Associate members as we work towards revitalizing and enhancing that program.
- ✓ **The Board received the Legislative Committee report and began discussion on legislative priorities for 2022.** An update on current legislative matters was provided, followed by a discussion about potential legislative priorities for 2022. The Board considered the extension of service proposal it tabled for 2021 and committed to revisit for 2022, along with supporting moving forward the consolidated language of existing protest provisions and an Omnibus bill.

Last quarter we reported to you on the Board's approval of CALAFCO filing an amicus letter to the CA Supreme Court requesting they review the decision in the case of *San Luis Obispo Local Agency Formation Commission v. City of Pismo Beach*. The letter was filed and the Court denied the request to review the decision, and further denied the request to de-publish the decision. While the Board acknowledges this is an important and unfavorable decision for LAFCos, there is mixed sentiment amongst LAFCos as to the overall impact of this decision. As a result, there will be

discussion of the matter during the Annual Conference at the legal counsel roundtable and during a topical roundtable breakout session.

- ✓ **Several other reports were received.** Including Elections Committee, Awards Committee, a CALAFCO U update and an update on the Conference.

All Board meeting documents are on the CALAFCO website.

### CALAFCO Administrative Update

A reminder to all our members that September 1 is the deadline to remit your CALAFCO dues for FY 2021-22. We are pleased to report that all Associate Members have been transitioned to a FY cycle rather than calendar year cycle and thank them for their patience during that transition.



### CALAFCO Legislative Update



This is the first year in the two-year legislative cycle, and wow has it been a busy one so far for CALAFCO.

This year, 2,721 bills were introduced which is about the average number. However, complicating the legislative process this year is the fact the Legislature has compressed their hearing schedule due to a shortage of hearing rooms that allow for social distancing. This means there is not the normal timeframe to negotiate amendments before bills get heard in committee and legislators are being required to seriously prioritize their bills for passage. (Only 12 bills per author were allowed to move from their house of origin to the other house.)

The Legislature returns from summer recess on August 16 and there will be the last minute flurry of amendments and pushing bills through the pipeline. Looming deadlines include: August 27 - last day for fiscal committees to meet and push out bills; September 3 - last day to amend bills on the floor; and September 10 - last day for the Legislature to pass bills. The last day for the Governor to sign bills is October 10, 2021.

This year, more than in past years, CALAFCO has been called on to work with legislators, their staff, and stakeholders in crafting amendments to bills. CALAFCO staff has done a large amount of negotiation on current

# News from the Board of Directors

## CALAFCO QUARTERLY

August 2021  
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and potential legislation, beginning last November and continuing today.

This year alone, four subcommittees were created to work on various bills, including the Caballero water authority bill (never introduced), AB 1195 (C. Garcia), SB 403 (Gonzalez) and SB 96 (Dahle). CALAFCO wishes to thank all the Legislative Committee and Advisory Committee volunteers, and also those who serve on these various subcommittees.

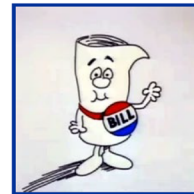
We are currently tracking 33 bills. Here are a few of the bills of importance we are tracking or have worked on:

- ✓ **AB 1581 (Assembly Local Government Committee Omnibus) CALAFCO Sponsor.** The annual Omnibus bill authored by the Assembly Local Government Committee (ALGC) and sponsored by CALAFCO was first introduced on March 9, 2021 and contained four proposals. Amended on April 19, the bill added two proposals originally approved by the Committee that required extended stakeholder review, and seven additional items that were a product of the Protest Working Group, eliminating obsolete special provisions. In total, the Omnibus bill this year contains thirteen (13) proposals. *The bill was signed into law by the Governor on June 28, 2021.*
- ✓ **AB 1195 (C. Garcia) CALAFCO Watch With Concerns.** Drinking water. Creates the So LA County Human Rights to Water Collaboration Act and gives the Water Board authority to appoint a Commissioner to oversee the Central Basin Municipal Water District. CALAFCO worked extensively with staff from both the author and Speaker's offices, as well as other stakeholders on crafting amendments that include a special pilot program for LA LAFCo. The bill passed the Assembly but given substantial pushback from stakeholders, it was *held over in the Senate as a two-year bill.*
- ✓ **SB 403 (Gonzalez) CALAFCO Neutral.** Drinking water consolidation. Authorizes the Water Board to order consolidation where a water system serving a disadvantaged community is an at-risk water system, as defined, or where a disadvantaged community is substantially reliant on at-risk domestic wells, as defined. All three of our requested amendments were accepted by the author and we removed our opposition as a result. After undergoing three rounds of amendments since introduction, the bill passed the Senate and is in the *Assembly Appropriations Suspense file.*
- ✓ **AB 897 (Mullin) CALAFCO Support.** Regional Climate Networks. The bill builds on existing programs through the Governor's Office of Planning and Research (OPR) by promoting regional collaboration in climate adaptation and resilience planning and providing guidance for regions to identify and prioritize projects necessary to respond to the climate vulnerabilities of their region. CALAFCO requested an amendment to explicitly state LAFCos are eligible entities for

participation in the regional climate networks, which was accepted. *The bill is now awaiting hearing in Senate Appropriations.*

All bills being tracked by CALAFCO can be found on the CALAFCO website inside the Legislation section of the site (log in with your member id first to access this section). CALAFCO's position on all bills is reflected there, and any letters issued by CALAFCO are posted. The CALAFCO Legislative Committee meets regularly and all meeting materials are located in the Legislation section of the CALAFCO website.

Watch for solicitation of legislative proposals for 2022 coming soon!



### CALAFCO Associate Members' Corner



This section is dedicated to highlighting our Associate Members. The information below is provided to CALAFCO by the Associate member upon joining the Association. All Associate member information can be found in the CALAFCO Member Directory.

#### **Economic & Planning Systems (EPS)**

EPS is an urban economics consulting firm specializing in governance analysis; LAFCo special studies and service reviews; tax sharing; annexation; incorporation, and reorganization feasibility; fiscal analysis; public finance; demographic and regional forecasting. EPS has been an Associate member since June 2005. Learn more about EPS and their services at [www.epsys.com](http://www.epsys.com), or contact **Ashleigh Kanat** at [akanat@epsys.com](mailto:akanat@epsys.com).



# News from the Board of Directors CALAFCO QUARTERLY

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## Goleta West Sanitary District

A Silver Associate Member since August 2011, **Goleta West Sanitary District** provides wastewater collection and treatment as well as street sweeping services. Formed in 1954, the district serves over 35,000 people. For more information, visit their website at [www.goletawest.com](http://www.goletawest.com), or email their General Manager **Mark Nation** at [info@goletawest.com](mailto:info@goletawest.com).



## LACO Associates

**LACO Associates** has been a Silver Associate Member since February 2012. **LACO** provides integrated solutions for development, infrastructure and geo-environmental projects. Their services include planning, design, engineering and geo-environmental as well as CEQA compliance, GIS, MSRs and economic studies. For more information visit their website at [www.lacoassociates.com](http://www.lacoassociates.com), or email **Kevin Doble** at [doblek@lacoassociates.com](mailto:doblek@lacoassociates.com).



## Griffith, Masuda & Hobbs

**Griffith, Masuda & Hobbs** has been a Silver Associate Member since March 2012. Founded in 1920, they specialize in water, energy, environmental and public law matters. They focus on serving public agencies and serve as general counsel or special water counsel to various agencies in the Central Valley. For more information, visit their website at [www.calwaterlaw.com](http://www.calwaterlaw.com) or email **David Hobbs** at [dhobbs@calwaterlaw.com](mailto:dhobbs@calwaterlaw.com).

## HdL Coren & Cone

**HdL Coren & Cone** has been a Silver Associate Member since July 2013. They assist local agencies by using property tax parcel data for developing specialized data reports, focused economic development strategies and revenue projections. HdLCC provides services to cities, counties and special districts in the state. For more information, visit them at [www.hdlcompanies.com](http://www.hdlcompanies.com), or email **Paula Cone** at [pcone@hdlccpropertytax.com](mailto:pcone@hdlccpropertytax.com).

## Planwest Partners, Inc.

**Planwest Partners Inc.** has been a Silver Associate Member since August 2014. They provide contract LAFCo staffing services to multiple LAFCos. This includes preparing and conducting MSRs and SOI updates, public noticing, environmental documents, GIS, fiscal and economic studies, website management, application processing, facilitation and training. For more information, visit them at [www.planwestpartners.com](http://www.planwestpartners.com), or email **George Williamson** at [georgew@planwestpartners.com](mailto:georgew@planwestpartners.com).



*CALAFCO wishes to thank all of our Associate Members for your ongoing support and partnership. We look forward to continuing to highlight you in future Quarterly Reports. Look for our next update to include short interviews featuring our Associate Members.*

## Did You Know??

### Meeting Documents Online

Did you know that all **CALAFCO Board of Directors and Legislative Committee meeting documents are online?** Visit the Boards & Committees pages in the Members Section of the site. Board documents cover 2008 to present and Legislative Committee documents span 2007 to present.



### CALAFCO Webinars & Courses Archived

Did you know that all **CALAFCO Webinar recordings on archived on the CALAFCO website and available at no cost for on-demand viewing?** Visit the CALAFCO website in the CALAFCO Webinars section (log in as a member first). There are now 30 CALAFCO U courses archived, and 8 webinars are archived and available for on-demand viewing.



## IMPORTANT REMINDERS

**Deadline to submit Achievement Award nominations is August 13, 2021 at 3:00 p.m.**

**Deadline to submit Board election nomination packets is September 7, 2021 at 5:00 p.m. and requests for absentee ballots must be received by September 7, 2021 at 5:00 p.m.**

## Mark Your Calendars For These Upcoming CALAFCO Events

- ❖ CALAFCO U webinar on Fire/EMS Agency series – 8/16, 8/23 and 8/26
- ❖ CALAFCO U webinar on Forming a CSD – 9/1
- ❖ CALAFCO Leg meeting – 9/10 (virtual)
- ❖ CALAFCO Annual Conference – 10/6 – 10/8 (Newport Beach)
- ❖ CALAFCO Board Meeting – 10/8 (Newport Beach)
- ❖ CALAFCO Leg meeting – 10/22 (location TBD)



The **CALAFCO 2021 Calendar of Events** can be found on the CALAFCO website.





**CALAFCO Daily Legislative Report  
as of August 26, 2021  
Priority 1 Bills**

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**AB 339 (Lee D) Local government: open and public meetings.**

**Current Text:** Amended: 8/25/2021 [html](#) [pdf](#)

**Introduced:** 1/28/2021 **Last Amended:** 8/25/2021 **Status:** 8/25/2021-Read third time and amended. Ordered to second reading.

**Calendar:** 8/26/2021 #2 SENATE ASSEMBLY BILLS - SECOND READING FILE

**Summary:**

The Ralph M. Brown Act requires, with specified exceptions, that all meetings of a legislative body of a local agency, as those terms are defined, be open and public and that all persons be permitted to attend and participate. Under existing law, a member of the legislative body who attends a meeting where action is taken in violation of this provision, with the intent to deprive the public of information that the member knows the public is entitled to, is guilty of a crime. This bill would require local agencies to conduct meetings subject to the act consistent with applicable state and federal civil rights laws, as specified.

**Attachments:** [AB 339 Fact Sheet](#) **Position:** Watch **Subject:** Other

**CALAFCO Comments:** This bill allows for continued remote participant in local (and state) hearings/meetings while adding requirements for both call-in and internet service based options for all public meetings; requires providing closed caption services; and requires agencies to provide language access services. The bill requires teleconferenced meetings to include an in-person public comment opportunity that creates a place where members of the public can gather at a designated site to give public comment (barring any in-person restrictions). Further, the bill requires the agenda and instructions for accessing the meeting to be translated into all languages for which 5% of the population in the area governed by the local agency is a speaker.

The bill adds requirements for local agencies to employ a sufficient amount of qualified bilingual people to provide translation services during the meeting in the language of the non-English speaking person (consistent with all languages for which 5% of the population in the area governed by the local agency speak). The bill adds similar requirements for any state legislative body. All of these new requirements are unfunded mandates. This bill is sponsored by the Leadership Counsel for Justice and Accountability. A fact sheet is posted in the tracking section of the bill. The bill was significantly amended on 4-15-21. These amendments removed all state requirements as noted above. Further, they require public participation by phone or internet (with video/audio), and allow agencies to create a registration process for public comments so long as people can register to speak via phone and in person.

The amendments remove the blanket requirement to translate the agenda and meeting access information and makes those an on-request requirements. The amendments also remove the blanket requirement for agencies to have sufficient qualified bilingual translators during meetings and changes that requirement to on-request, and requires agencies to make public the process to make such a request. All requirements remain unfunded mandates.

Amended on 5-4-21 as a result of the ALGC hearing, this version of the bill now:

- Limits the bill's applicability to the meetings of city councils and county boards of supervisors only, the jurisdictions of which contain a population of at least 250,000 people;
- Requires public access via telephone OR internet (not both);
- Removes language requiring two-way operability for internet;
- Removes all language translation requirements;
- Removes language allowing local agencies to require members of the public to register in order to provide public comment;
- Removes language allowing teleconferencing to be used by members of the legislative body (to avoid inadvertently precluding the use of teleconferencing by the public);
- Refines language referring to "all meetings" to state "all open and public meetings" (to ensure closed sessions are not subject to the provisions of the bill);
- Restores current law allowing public comment before an agenda item is taken up; and,
- Adds a sunset date of December 31, 2023.

As amended 6/25/21 - The bill requires a city or county with over 250,000 to conduct public meetings with a two-way telephone or internet option for the public. It also requires them, if as of 6-15-21 the agency has provided video streaming of their public meetings, to continue to do so. Also requires the agency to provide in-person public comment unless the law prohibits in-person gatherings.

UPDATE: The 7/5/21 amendment specifies that the agency shall continue to provide streaming if they have conducted at least one (not all) meeting in that manner as of 6-15-21.

**AB 361 (Rivas, Robert D) **Open meetings: local agencies: teleconferences.****

**Current Text:** Amended: 7/6/2021 [html](#) [pdf](#)

**Introduced:** 2/1/2021 **Last Amended:** 7/6/2021 **Status:** 7/15/2021-Read second time. Ordered to third reading. **Calendar:** 8/26/2021 #65 SENATE ASSEMBLY BILLS - THIRD READING FILE

**Summary:** Existing law, the Ralph M. Brown Act requires, with specified exceptions, that all meetings of a legislative body of a local agency, as those terms are defined, be open and public and that all persons be permitted to attend and participate. This bill, until January 1, 2024, would authorize a local agency to use teleconferencing without complying with the teleconferencing requirements imposed by the Ralph M. Brown Act when a legislative body of a local agency holds a meeting during a declared state of emergency, as that term is defined, when state or local health officials have imposed or recommended measures to promote social distancing during a proclaimed state of emergency held for the purpose of determining, by majority vote, whether meeting in person would present imminent risks to the health or safety of attendees, and during a proclaimed state of emergency when the legislative body has determined that meeting in person would present imminent risks to the health or safety of attendees, as provided.

**Attachments:** [CALAFCO Support July 2021](#) [AB 361 Fact Sheet](#)

**Position:** Support **Subject:** Brown Act

**CALAFCO Comments:** Executive Order No. N-29-20 suspends the Ralph M. Brown Act's requirements for teleconferencing during the COVID-19 pandemic provided that certain requirements are met (noticing, public access, etc.). This bill allows a local agency to conduct meetings using teleconference methods without complying with certain teleconferencing requirements if they are meeting for the purposes of declaring or ratifying a local emergency, during a declared state or local emergency (as defined in statute), when state or local health officials have imposed or recommended certain measures to promote social distancing, and during a declared local emergency provided the legislative body makes certain determinations by majority vote. The legislative body must give notice of the meeting and post agendas to allow members of the public to access the meeting and address the legislative body, offer public comment, and protect rights of the parties and public appearing before the legislative body. The bill also rescinds the requirement that at least a quorum of the body must meet within the jurisdictional boundaries of the agency under these circumstances when meeting via telecom. As amended on 4/6/21, the bill now specifies that the new statute can be applied if meeting in person presents imminent risk to the health & safety of attendees; Requires the agenda to provide opportunity for anyone to attend via call-in or internet option; should there be a service disruption that prevents remote public participation, the agency must take no further action on any agenda item until service is restored; the agency cannot require submittal of public comments in advance of the meeting; and requires the legislative body, every 30 days after the initial declaration of emergency, should the emergency remain active, to make certain findings that the emergency still exists and prevents in-person meetings. As amended on 5-10-21, the amendments tighten restrictions for in-person meetings to only the determination that meeting in person presents imminent risk to the health and safety of attendees (removing the option to consider if attendance by one of more members of the legislative body is hindered).

**UPDATE:** As amended 7/6/21, the bill now only applies to state declared emergencies; adds specific requirements for making accommodations for various types of public comment processes during local government meetings; adds a sunset date of 1-1-24; and allows agencies to use telecom methods to meet and specifies requirements for those meetings. This bill is sponsored by the CA Special Districts Association (CSDA). The bill is not marked fiscal. A fact sheet is posted in the tracking section of the bill.

**AB 703 (Rubio, Blanca D) Open meetings: local agencies: teleconferences.**

**Current Text:** Amended: 4/29/2021 [html](#) [pdf](#) **Introduced:** 2/16/2021 **Last Amended:** 4/29/2021

**Status:** 5/7/2021-Failed Deadline pursuant to Rule 61(a)(3). (Last location was L. GOV. on 2/25/2021)(May be acted upon Jan 2021)

**Summary:** Current law, by Executive Order N-29-20, suspends the Ralph M. Brown Act's requirements for teleconferencing during the COVID-19 pandemic, provided that notice requirements are met, the ability of the public to observe and comment is preserved, as specified, and that a local agency permitting teleconferencing have a procedure for receiving and swiftly resolving requests for reasonable accommodation for individuals with disabilities, as specified. This bill would remove the notice requirements particular to teleconferencing and would revise the requirements of the act to allow for teleconferencing subject to existing provisions regarding the posting of notice of an agenda, provided that the public is allowed to observe the meeting and address the legislative body directly both in person and remotely via a call-in option or internet-based service option, and that a quorum of members participate in person from a singular physical location clearly identified on the agenda that is open to the public and situated within the jurisdiction.

**Position:** Watch **Subject:** Brown Act

**CALAFCO Comments:** As amended on 4/29/21, the bill requires local agencies to allow for public participation during meetings of the legislative body both at in-person and via a call-in or internet-based option. It further requires that if the agency holds a teleconference meeting, at least a quorum of the governing body shall participate in person from a single location which shall be open to the public (and located within the boundaries of the jurisdiction). Despite these requirements, the bill is not marked fiscal. Further, it applies only to local agencies, not state agencies. The bill is sponsored by Three Valleys Municipal Water Agency.

**AB 1195 (Garcia, Cristina D) Drinking water.**

**Current Text:** Amended: 5/24/2021 [html](#) [pdf](#) **Introduced:** 2/18/2021 **Last Amended:** 5/24/2021

**Status:** 5/24/2021-Read second time and amended. Ordered returned to second reading.

**Summary:** Current law establishes the Safe and Affordable Drinking Water Fund in the State Treasury to help water systems provide an adequate and affordable supply of safe drinking water in both the near and long terms. Current law authorizes the state board to provide for the deposit into the fund of certain moneys and continuously appropriates the moneys in the fund to the state board for grants, loans, contracts, or services to assist eligible recipients. This bill would prohibit a public water system from transferring or abandoning a water right held by the public water system except upon approval of the state board, as prescribed.

**Attachments:** [AB 1195 Fact Sheet](#) [CALAFCO Letter of Concern - April 2021](#)

**Position:** Watch With Concerns **Subject:** Water

**CALAFCO Comments:** As amended on 4-6-21, the bill was gut and amended and now creates the So LA County Human Rights to Water Collaboration Act. It requires the Water Board to appoint a commissioner to implement the Safe & Affordable Funding for Equity & Resilience Program and gives the commissioner certain authorities (although they are not clearly spelled out). It requires the commissioner by 12-31-24 to submit to the Water Board a plan for the long-term sustainability of public water systems in southern LA County and prescribes what shall be included in the plan. The bill also creates a technical advisory board and requires the commissioner to oversee the Central Basin Municipal Water District. In its current form the bill creates numerous concerns. CALAFCO's letter of concern is posted in the tracking section of the bill, and includes: (1) Focus of the bill is very broad as is the focus of the commissioner; (2) In an attempt to prevent privatization of water systems there is language regarding severing water rights. That language could be problematic should a consolidation be ordered; (3) Diminishing local control that is being invested in the state (an ongoing concern since SB 88); (4) A clear distinction needs to be made between an Administrator and Commissioner; (5) The poorly written section on the technical advisory board; and (6) The lack of LAFCo involvement in any consolidation process. CALAFCO will continue to work with LA LAFCo, the author's office and other stakeholders on the bill. The bill is author-sponsored and we understand there is currently no funding source. A fact sheet is posted in the tracking section of the bill. CALAFCO's letter of concern is also posted there.

UPDATE: 05/20/21 - Bill passed out of Assm. Approps. today with two amendments: (1) delete the provisions relating to severing water rights, and (2) keep LA LAFCo in the process. CALAFCO is currently reviewing the version dated 5/24/21.

**SB 403 (Gonzalez D) **Drinking water: consolidation.****

**Current Text:** Amended: 4/27/2021 [html](#) [pdf](#) **Introduced:** 2/12/2021 **Last Amended:** 4/27/2021

**Status:** 5/20/2021-Read third time. Passed. (Ayes 27. Noes 7.) Ordered to the Assembly. In Assembly. Read first time. Held at Desk.

**Summary:** The California Safe Drinking Water Act authorizes the State Water Resources Control Board to order consolidation with a receiving water system where a public water system or a state small water system, serving a disadvantaged community, consistently fails to provide an adequate supply of safe drinking water or where a disadvantaged community is substantially reliant on domestic wells that consistently fail to provide an adequate supply of safe drinking water. This bill would authorize the state board to also order consolidation where a water system serving a disadvantaged community is an at-risk water system, as defined, or where a disadvantaged community is substantially reliant on at-risk domestic wells, as defined.

**Attachments:** [CALAFCO Oppose Unless Amended Letter April 2021](#), [SB 403 Fact Sheet 2021](#)

**Position:** Oppose unless amended **Subject:** Disadvantaged Communities, Water

**CALAFCO Comments:** Current law (Health & Safety Code Section 116682) authorizes the State Water Resources Control Board (Board) to order consolidation (physical or operational) of a public water system or state small water system serving a disadvantaged community that consistently fails to provide an adequate supply of safe drinking water, or a disadvantaged community (in whole or part) that is substantially reliant on domestic wells that consistently fail to provide an adequate supply of safe drinking water. This bill would add to that a water system or domestic well(s) that are at risk of failing to provide an adequate supply of safe drinking water, as determined by the Board. The bill also requires the Board, before ordering consolidation, to conduct outreach to ratepayers and residents served by the at-risk system and to consider any petition submitted by members of a disadvantaged community being served by the at-risk system. There appears to be several problems with this bill: (1) The bill does not define "at risk" and there is no definition of "at risk" currently in H&S Code Sec. 116681; (2) There is a lack of consultation with GSAs by the State Board when considering ordering consolidation or extension of service; (3) There is no requirement or even consideration for annexation upon extension of service; and (4) there does not appear to be a limitation of the number of connections or the extent to which the system can be extended.

The bill is co-sponsored by the Leadership Counsel for Justice and Accountability, Clean Water Action and Community Water Center. A fact sheet is posted in the tracking section of the bill. CALAFCO's position letter is also posted there. Specific to SB 403, we requested 3 amendments: (1) Define "at risk"; (2) Add a requirement for the SWRCB to consult with GSAs when considering a domestic well consolidation; and (3) Put a cap on the number of users to be added by the subsuming system or the extent to which the service is being extended. Additionally, CALAFCO recommended a comprehensive review of the current mandatory consolidation process citing a host of issues the current process creates

UPDATE: As amended on 4/27/21, the bill now defines "at risk system" and "at risk domestic well"; creates an appeal process for potentially subsumed water systems; requires inspection or testing of wells to determine "at risk" status; and allows the Board to prioritize systems historically overburdened by pollution and industrial development or other environmental justice concerns. It also puts a cap of 3,300 or fewer connections on systems that can be subsumed. These amendments address 2 of our 3 requested amendments. We will continue to work with the author on requiring the SWRCB to consult with GSAs on wells.

**AB 959 (Mullin D) **Park districts: ordinances: nuisances: abatement.****

**Current Text:** Amended: 5/10/2021 [html](#) [pdf](#) **Introduced:** 2/17/2021 **Last Amended:** 5/10/2021

**Status:** 5/11/2021-Read second time. Ordered to third reading.

**Summary:** Current law prescribes procedures, including the election of a board of directors, for the formation of regional park districts, regional park and open-space districts, or regional open-space districts. Current law authorizes a city legislative body to declare what constitutes a nuisance. Current law authorizes the legislative body of a city, county, or city and county to provide for the summary abatement of any nuisance resulting from the defacement of the property of another by graffiti or other inscribed material, at the expense of the minor or other person creating, causing, or committing the nuisance, and, by ordinance, authorizes the legislative body to make the expense of abatement of the nuisance a lien against property of the minor or other person and a personal obligation against the minor or other person. This bill would authorize the board of directors of a district to declare what constitutes a nuisance, as provided. The bill would, among other things, authorize a district to exercise the authority granted to a city, as described above, for purposes of abating a nuisance, as provided.

**Attachments:** [AB 959 Fact Sheet](#) **Position:** Watch

**CALAFCO Comments:** As introduced, this bill gives authority to independent regional park & open space districts governed by PRC 5500 to: (1) Declare by ordinance what constitutes a public nuisance; (2) Abate those public nuisances by either administrative or civil actions; and (3) Ability to recover costs incurred in abating the public nuisance, including attorneys' fees. There are 4 of these independent special districts: (1) Midpeninsula Regional Open Space District; (2) East Bay Regional Park District; (3) Monterey Peninsula Regional Park District; and (4) Napa County Regional Park and Open Space District. A fact sheet is posted in the tracking section of the bill.

**UPDATE:** As amended on 5-10-21, the bill requires the district Board to adopt an ordinance declaring what constitutes a nuisance. It authorizes the district to initiate civil action and recover damages.

### **[AB 1295](#) (Muratsuchi D) Residential development agreements: very high fire risk areas.**

**Current Text:** Introduced: 2/19/2021 [html](#) [pdf](#) **Introduced:** 2/19/2021 **Status:** 5/7/2021-Failed Deadline pursuant to Rule 61(a)(3). (Last location was L. GOV. on 3/4/2021)(May be acted upon Jan 2021)

**Summary:** Current law requires the Director of Forestry and Fire Protection to identify areas in the state as very high fire hazard severity zones based on the severity of fire hazard that is expected to prevail in those areas, as specified, and requires each local agency to designate, by ordinance, the very high fire hazard severity zones in its jurisdiction. Current law additionally requires the director to classify lands within state responsibility areas into fire hazard severity zones. This bill, beginning on or after January 1, 2022, would prohibit the legislative body of a city or county from entering into a residential development agreement for property located in a very high fire risk area. The bill would define "very high fire risk area" for these purposes to mean a very high fire hazard severity zone designated by a local agency or a fire hazard severity zone classified by the director.

**Attachments:** [AB 1295 Fact Sheet](#) **Position:** Watch **Subject:** Growth Management, Planning

**CALAFCO Comments:** This bill prohibits a city or county from entering into a residential development agreement for property located within a very high fire risk area as of 1-1-2022. This bill appears similar to SB 55 (Stern) except: (1) This bill explicitly calls out residential development, whereas SB 55 addresses new development (housing, commercial, retail or industrial) in a very high fire hazard severity zone; and (2) SB 55 adds a state responsibility area. The bill is not marked fiscal. This is an author-sponsored bill and a fact sheet is posted in the tracking section of the bill.

### **[SB 10](#) (Wiener D) Planning and zoning: housing development: density.**

**Current Text:** Amended: 4/27/2021 [html](#) [pdf](#) **Introduced:** 12/7/2020 **Last Amended:** 4/27/2021

**Status:** 5/20/2021-From committee: Do pass. (Ayes 6. Noes 1.) (May 20). Read second time. Ordered to third reading.

**Summary:** Would, notwithstanding any local restrictions on adopting zoning ordinances, authorize a local government to adopt an ordinance to zone any parcel for up to 10 units of residential density per parcel, at a height specified in the ordinance, if the parcel is located in a transit-rich area, a jobs-rich area, or an urban infill site, as those terms are defined. In this regard, the bill would require the Department of Housing and Community Development, in consultation with the Office of Planning and Research, to determine jobs-rich areas and publish a map of those areas every 5 years, commencing January 1, 2023, based on specified criteria. The bill would specify that an ordinance adopted under these provisions, and any resolution to amend the jurisdiction's General Plan, ordinance, or other local regulation adopted to be consistent with that ordinance, is not a project for purposes of the California Environmental Quality Act.

**Position:** Watch **Subject:** Housing

**CALAFCO Comments:** While not directly affecting LAFCoS, the requirements in the bill are of interest. As amended on 4/13/21, the bill authorizes a local government to adopt an ordinance to zone any parcel for up to 10 units of residential density per parcel, at a height specified in the ordinance, if the parcel is located in a transit-rich area, a jobs-rich area, or an urban infill site, as those terms are defined in the bill. In this regard, the bill would require the Department of Housing and Community Development, in consultation with the Office of Planning and Research, to determine jobs-rich areas and publish a map of those areas every 5 years, commencing January 1, 2023, based on specified criteria. The bill would specify that an ordinance adopted under these provisions, and any resolution adopted to amend the jurisdiction's General Plan Plan, ordinance, or other local regulation adopted to be consistent with that ordinance, is exempt from CEQA. The bill imposes specified requirements on a zoning ordinance adopted under these provisions. The bill would prohibit a legislative body that adopts a zoning ordinance pursuant to these provisions from subsequently reducing the density of any parcel subject to the ordinance and makes void and unenforceable any covenant, restriction, or condition contained in any deed, contract, security instrument, or other instrument affecting the transfer or sale of any interest in a planned development, and any provision of a governing document, that effectively prohibits or unreasonably restricts a use or density authorized by an ordinance adopted pursuant to the provisions in the bill.

**UPDATE:** The amendment of 4/27/21 amends 65913.5(a)(3) to remove exemption of parcels excluded from specified hazard zones by a local agency pursuant to 51179(b).

**SB 12 (McGuire D) Local government: planning and zoning: wildfires.**

**Current Text:** Amended: 5/4/2021 [html](#) [pdf](#) **Introduced:** 12/7/2020 **Last Amended:** 5/4/2021

**Status:** 5/20/2021-From committee: Do pass. (Ayes 5. Noes 2.) (May 20). Read second time. Ordered to third reading.

**Summary:** Current law requires that the Office of Planning and Research, among other things, coordinate with appropriate entities, including state, regional, or local agencies, to establish a clearinghouse for climate adaptation information for use by state, regional, and local entities, as provided. This bill would require the safety element, upon the next revision of the housing element or the hazard mitigation plan, on or after July 1, 2024, whichever occurs first, to be reviewed and updated as necessary to include a comprehensive retrofit strategy to reduce the risk of property loss and damage during wildfires, as specified, and would require the planning agency to submit the adopted strategy to the Office of Planning and Research for inclusion into the above-described clearinghouse.

**Position:** Watch **Subject:** Growth Management, Planning

**SB 13 (Dodd D) Local agency services: contracts: Counties of Napa and San Bernardino.**

**Current Text:** Amended: 5/11/2021 [html](#) [pdf](#) **Introduced:** 12/7/2020 **Last Amended:** 5/11/2021

**Status:** 5/17/2021-Read third time. Urgency clause adopted. Passed. (Ayes 38. Noes 0.) Ordered to the Assembly. In Assembly. Read first time. Held at Desk.

**Summary:** The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 establishes a pilot program under which the commissions in the Counties of Napa and San Bernardino, upon making specified determinations at a noticed public hearing, may authorize a city or district to provide new or extended services outside its jurisdictional boundary and outside its sphere of influence to support existing or planned uses involving public or private properties, as provided. Current law requires the Napa and San Bernardino commissions to submit a report to the Legislature on their participation in the pilot program, as specified, before January 1, 2020, and repeals the pilot program as of January 1, 2021. This bill would reestablish the pilot program, which would remain in effect until January 1, 2026. The bill would impose a January 1, 2025, deadline for the Napa and San Bernardino commissions to report to the Legislature on the pilot program, and would require the contents of that report to include how many requests for extension of services were received under these provisions.

**Attachments:** [CALAFCO Oppose Unless Amended letter May 2021](#)

**Position:** Oppose unless amended **Subject:** CKH General Procedures

**CALAFCO Comments:** This bill is the same as SB 799 from 2020 and seeks to re-establish and continue the pilot program for five more years. The program ended as of January 1, 2021 but due to the pandemic, SB 799 from 2020 to extend the sunset was not moved forward in the legislature.

**UPDATE:** As amended on 4/29/21, the bill now adds 56133.6 which seeks to address several projects in the City of St. Helena, and resolve a current law suit between the winery and the city. The amendments authorize Napa LAFCo to consider new or extended service by the city to specific parcels with certain

conditions. The bill requires the Napa LAFCo make certain determinations if approving, include any decision in their required report to the Legislature and has a sunset of 1-1-26. CALAFCO has made a request for several technical amendments to the version dated 4-29-21, and has concern this addition strays too far from the original intent of the pilot program. Requested amendments on the table now include: (1) Rewording of both sections 56133.5(a)(2) and 56133.6(a)(3) to explicitly state both (A) and (B) are required; (2) Reword the new addition to 56133.5(d) so that it does not presume Napa LAFCo will authorize the new or extension of service; and (3) Rewrite 56133.6(a)(1) to clarify that (A) must apply to both (B) and (C). As amended on 5-11-21, all requested technical amendments were made, however the intent of the pilot program has changed with the addition of 56133.6 and Napa LAFCo's ability to approve extension of service for parcels that do not meet the pilot program's requirement of planned use as defined in 56133.5. For this reason, CALAFCO is opposed unless amended, requesting the removal of 56133.6. Our letter is in the bill detail section.

**SB 55 (Stern D) Very high fire hazard severity zone: state responsibility area: development prohibition: supplemental height and density bonuses.**

**Current Text:** Amended: 4/5/2021 [html](#) [pdf](#) **Introduced:** 12/7/2020 **Last Amended:** 4/5/2021

**Status:** 4/30/2021-Failed Deadline pursuant to Rule 61(a)(2). (Last location was GOV. & F. on 3/3/2021)(May be acted upon Jan 2022)

**Summary:** Would, in furtherance of specified state housing production, sustainability communities strategies, greenhouse gas reduction, and wildfire mitigation goals, prohibit the creation or approval of a new development, as defined, in a very high fire hazard severity zone or a state responsibility area unless there is substantial evidence that the local agency has adopted a comprehensive, necessary, and appropriate wildfire prevention and community hardening strategy to mitigate significant risks of loss, injury, or death, as specified. By imposing new duties on local governments with respect to the approval of new developments in very high fire hazard severity zones and state responsibility areas, this bill would impose a state-mandated local program.

**Attachments:** [SB 55 Fact Sheet](#) **Position:** Watch **Subject:** Growth Management, Planning

**CALAFCO Comments:** This bill prohibits the creation or approval of a new development (housing, commercial, retail or industrial) in a very high fire hazard severity zone or a state responsibility area. The bill is author-sponsored and imposes unfunded mandates. A fact sheet is posted in the tracking section of the bill. As amended on 4/5/21, the bill removes the "blanket approach" to prohibiting development as noted above by adding specificity. The bill prohibits development in either of the areas noted above unless there is substantial evidence that the local agency has adopted a comprehensive, necessary and appropriate wildfire preventions and community hardening strategy to mitigate significant risks of loss, injury or death as specified in the bill. Additionally, the bill provides a qualifying developer a supplemental height bonus and a supplemental density bonus, as specified, if the development is located on a site that meets certain criteria, including, among others, not being located in a moderate, high, or very high fire hazard severity zone, as specified. These requirements are unfunded mandates. This bill appears similar to AB 1295 (Muratsuchi) except this bill appears to be broader in scope in terms of the type of development prohibited and includes a state responsibility area, whereas AB 1295 only addresses residential development in a very high fire risk area.



## **Manager's Report**

To: Board of Directors

From: Scott McCutcheon, General Manager

Date: September 14, 2021

RE: Item No. 16 – Board Members', Manager and Staff Comments

### **16.1 Field Operations Supervisor Report**

The August, 2021 Field Operations Activity Report is included for your review and discussion.

Attachment Included

### **16.2 Personnel Committee Report**

The Personnel Committee will provide a report on their progress.

Attachment Included