CITY COUNCIL REGULAR MEETING

Clearlake City Hall Council Chambers
14050 Olympic Dr, Clearlake, CA
Thursday, May 07, 2026
Regular Meeting 6:00 PM

The City Council meetings are viewable in person in the Council Chambers, via livestreaming on the City's YouTube Channel (https://www.youtube.com/channel/UCTyifT_nKS-3woxEu1ilBXA) or "Lake County PEG TV Live Stream" at https://www.youtube.com/user/LakeCountyPegTV/featured and the public may participate through Zoom at the link listed below. The public will not be allowed to provide verbal comment during the meeting if attending via Zoom. The public can submit comments in writing for City Council consideration by commenting via the Q&A function in the Zoom platform or by sending comments to the Administrative Services Director/City Clerk at mswanson@clearlake.ca.us. To give the City Council adequate time to review your comments, you must submit your written emailed comments prior to 4:00 p.m. on the day of the meeting.

AMENDED AGENDA

MEETING PROCEDURES: *All items on agenda will be open for public comments before final action is taken. Citizens wishing to introduce written material into the record at the public meeting on any item are requested to provide a copy of the written material to the Administrative Services Director/City Clerk prior to the meeting date so that the material may be distributed to the City Council prior to the meeting. Speakers must restrict comments to the item as it appears on the agenda and stay within a three minutes time limit. The Mayor has the discretion of limiting the total discussion time for an item.*

Pursuant to Senate Bill 1100 and the City Council Norms and Procedures, any member of the public making personal, impertinent, and/or slanderous or profane remarks, or who becomes boisterous or belligerent while addressing the City Council, staff or general public, or while attending the City Council meeting and refuses to come to order at the direction of the Mayor/Presiding Officer, shall be removed from the Council Chambers or the Zoom by the sergeant-at-arms or the City Clerk and may be barred from further attendance before the Council during that meeting. Unauthorized remarks from the audience, stamping of feet, whistles, yells, and similar demonstrations shall not be permitted by the Mayor/Presiding Officer. The Mayor/Presiding Officer may direct the sergeant-at-arms to remove such offenders from the room.

AMERICANS WITH DISABILITY ACT (ADA) REQUESTS

If you need disability related modification, including auxiliary aids or services, to participate in this meeting, please contact Melissa Swanson, Administrative Services Director/City Clerk at the Clearlake City Hall, 14050 Olympic Drive, Clearlake, California 95422, phone (707) 994-8201, ext 106, or via email at mswanson@clearlake.ca.us at least 72 hours prior to the meeting, to allow time to provide for special accommodations.

AGENDA REPORTS

Staff reports for each agenda item are available for review at www.clearlake.ca.us. Any writings or documents pertaining to an open session item provided to a majority of the City Council less than 72 hours prior to the meeting, shall be made available for public inspection on the City's website at www.clearlake.ca.us.

Zoom Link:

Join from PC, Mac, iPad, or Android:

https://clearlakeca.zoom.us/s/86403724644?pwd=Pzm36nzYrqfRdfK9VkphRARQA92iBS.1

Passcode:713131

A. ROLL CALL

B. PLEDGE OF ALLEGIANCE

C. INVOCATION/MOMENT OF SILENCE: *The City Council invites members of the clergy, as well as interested members of the public in the City of Clearlake, to voluntarily offer an invocation before the beginning of its meetings for the benefit and blessing of the City Council. This opportunity is voluntary and invocations are to be less than three minutes, offered in a solemn and respectful tone, and directed at the City Council. Invocational speakers who do not abide by these simple rules of respect and brevity shall be given a warning and/or not invited back to provide a subsequent invocation for a reasonable period of time, as determined appropriate by the City. This policy is not intended, and shall not be implemented or construed in any way, to affiliate the City Council with, nor express the City Council's preference for, any faith or religious denomination. Rather, this policy is intended to acknowledge and express the City Council's respect for the diversity of religious denominations and faith represented and practiced among the citizens of Clearlake. If a scheduled invocational speaker does not appear at the scheduled meeting, the Mayor will ask that the City Council observe a moment of silence in lieu of the invocation. More information about the City's invocation policy is available upon request by contacting the Administrative Services Director/City Clerk at (707) 994-8201x106 or via email at mswanson@clearlake.ca.us.*

D. ADOPTION OF THE AGENDA *(This is the time for agenda modifications.)*

E. PRESENTATIONS

1. Presentation of a Proclamation Declaring May 3-9, 2026 as Small Business Week

2. Presentation of a Proclamation Declaring May 11 - 17, 2026 as Police Week

3. Presentation of a Proclamation Declaring May 3 - 9, 2026 as Public Service Recognition Week

4. Presentation of a Proclamation Declaring May 2026 as Military Appreciation Month

5. Presentation from Lower Lake High School Statistics and Probability Class Blue Zones Project

F. PUBLIC COMMENT: *This is the time for any member of the public to address the City Council on any matter not on the agenda that is within the subject matter jurisdiction of the City.* ***The Brown Act, with limited exceptions, does not allow the Council or staff to discuss issues brought forth under Public Comment.*** *The Council cannot take action on non-agenda items. Concerns may be referred to staff or placed on the next available agenda. Please note that comments from the public will also be taken on each agenda item. Comments shall be limited to three (3) minutes per person.*

G. CONSENT AGENDA: *All items listed under the Consent Agenda are considered to be routine in nature and will be approved by one motion. There will be no separate discussion of these items unless a member of the Council requests otherwise, or if staff has requested a change under Adoption of the Agenda, in which case the item will be removed for separate consideration. Any item so removed will be taken up following the motion to approve the Consent Agenda.*

6. Award of Contract for the Senior Center Exterior Repair Project
Recommended Action: Authorize City Manager to enter into a contract with Bridges Construction for the Senior Center Exterior Repair Project and authorize the City Manager to approve up to 10% for additional unforeseen contract amendments.

7. Warrants
Recommended Action: Receive and file

8. Minutes
Recommended Action: Receive and file

H. PUBLIC HEARING

9. Discussion and Consideration of Resolution 2026-14 Authorizing the Extension of the Temporary Road Closure of Certain Roads, to Reduce Illegal Dumping and to Protect the Environment, and Public Health and Welfare
Recommended Action: Adopt Resolution 2026-14

I. BUSINESS

10. Presentation of the Public Education and Government Television Annual Board Report

11. Discussion and Consideration of Actions Regarding Concerns with the Lake County Sanitation District
Recommended Action: Direction to Staff

J. CITY MANAGER AND COUNCILMEMBER REPORTS

K. FUTURE AGENDA ITEMS

L. CLOSED SESSION

(12) CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION- Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2): 9 potential cases Claimants: Joseph Ross; Mayra Ornate Solis, et al; Melissa Smith; Antonio Martinez Gomez; Jose Lupe; James Anderson; Robert Courtois, et al; Felipe Godinez, et al; Karen Fossler, et al; - Claims related to the Robin Lane sewage spill, Clearlake

(13) Conference with Labor Negotiators: Pursuant to Government Code Section 54957.6: Agency designated representatives: City Manager Flora, Administrative Services Director Swanson; Employee Organization: Clearlake Police Officers Association; Clearlake Municipal Employees Association; Clearlake Middle Management Association

(14) CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION - Initiation of litigation pursuant to Government Code § 54956.9(d)(4): (1 case)

M. ANNOUNCEMENT OF ACTION FROM CLOSED SESSION

N. ADJOURNMENT

POSTED: May 4, 2026

BY:

Melissa Swanson

Melissa Swanson, Administrative Services Director/City Clerk

SMALL BUSINESS WEEK
May 3 – 9, 2026

WHEREAS, America's progress has been driven by pioneers who think big, take risks and work hard; and

WHEREAS, from the storefront shops that anchor our downtown areas to the high-tech startups that keep America on the cutting edge, small businesses are the backbone of our economy and the cornerstone of our nation's promise; and

WHEREAS, small business owners and downtown businesses have energy and a passion for what they do, when we support small business, jobs are created and local communities preserve their unique culture; and

WHEREAS, because this country's 36 million small businesses create nearly two out of three new jobs in our economy, we cannot resolve to create jobs and spur economic growth without discussing ways to support entrepreneurs; and

WHEREAS, the President of the United States has proclaimed National Small Business Week every year since 1963 to highlight the programs and services available to entrepreneurs through the U.S. Small Business Administration and other agencies.

NOW, THEREFORE, BE IT PROCLAIMED that the week of May 3 – 9, 2026 is designated as Small Business Week in the City of Clearlake.

Dated this 7th day of May, 2026

Dirk Slooten, Mayor

Police Week 2026

WHEREAS, there are more than 800,000 law enforcement officers serving in communities across the United States, including the dedicated members of the Clearlake Police Department;

WHEREAS, since the first recorded death in 1786, more than 24,000 law enforcement officers in the United States have made the ultimate sacrifice and been killed in the line of duty;

WHEREAS, the names of these dedicated public servants are engraved on the walls of the National Law Enforcement Officers Memorial in Washington, D.C.;

WHEREAS, May 15 is designated as Peace Officers Memorial Day, in honor of all fallen officers and their families and U.S. flags will be flown at half staff;

THEREFORE, BE IT RESOLVED that the Clearlake City Council formally designates May 11 - 17, 2026, as Police Week in the City of Clearlake and publicly salutes the service of law enforcement officers in our community and in communities across the nation.

Dated this 7th day of May, 2026

Dirk Slooten, Mayor

Public Service Recognition Week

May 3 – 9, 2026

WHEREAS, our Nation's progress has long been fueled by the efforts of selfless citizens who come together in service to their fellow Americans to change our country for the better; and

WHEREAS, during Public Service Recognition Week, we honor those who dedicate themselves to ensuring America's promise rings true in every corner of our country, and we recommit to upholding the values they fight for every day; and

WHEREAS, Americans are served every single day by public servants at the federal, state, county and city levels, including employees of the City of Clearlake. These unsung heroes do the work that keeps our city working; and

WHEREAS, without these public servants at every level, continuity would be impossible in a democracy that regularly changes its leaders and elected officials. Day in and day out they provide the diverse services demanded by the American people of their government with efficiency and integrity; and

NOW, THEREFORE, BE IT PROCLAIMED that the Clearlake City Council does hereby designates May 3 – 9, 2026 as Public Service Appreciation Week in the City of Clearlake. All citizens are encouraged to recognize the accomplishments and contributions of government employees at all levels — federal, state, county and city.

Dated this 7th day of May, 2026

Dirk Slooten, Mayor

Military Appreciation Month
May 2026

WHEREAS, the rights of life, liberty and the pursuit of happiness, enumerated in our Declaration of Independence, secured by the Constitution and the Bill of Rights, and enjoyed by every citizen of the United States, are a direct result of the members of the United States Armed Forces; and

WHEREAS, the sacrifices made by the members of the United States Armed Forces and the family members who support them preserve the liberties that enrich our nation, our state, and our city; and

WHEREAS, our citizens have a proud history of service in the United States Armed Forces in both times of peace and times of war; and

WHEREAS, many citizens of the City of Clearlake continue to serve on active duty and in the National Guard, and in the reserve components of the United States Armed Forces; and

NOW, THEREFORE, BE IT PROCLAIMED that the Clearlake City Council does hereby wish to recognize and honor all members of the United States Armed Forces, past and present, as well as their families, for their service and sacrifice and hereby designates May 2026 as Military Appreciation Month in the City of Clearlake. Further, we encourage all citizens to show our gratitude by the appropriate display of flags and ribbons during the designated period.

Dated this 7th day of May, 2026

Dirk Slooten, Mayor

CITY OF CLEARLAKE

City Council

STAFF REPORT

SUBJECT: Award of Contract for the Senior Center Exterior Repair Project	**MEETING DATE:** May 7, 2026
SUBMITTED BY: Adeline Leyba, Public Works Director	
PURPOSE OF REPORT: ☐ Information only ☐ Discussion ☒ Action Item	

WHAT IS BEING ASKED OF THE CITY COUNCIL/BOARD:

The City Council is being asked to approve a contract for the Senior Center Exterior Repair Project and authorize the City Manager to approve up to 10% for additional unforeseen contract amendments.

BACKGROUND/DISCUSSION:

On April 9, 2026, the city solicited proposals for Senior Center Exterior Repair Project. This project was solicited in OpenGov. Improvements include repairs to the drywall and electrical, replacing front entry doors, rebuilding of the stucco column framing and painting of all damaged areas. Two bids were received:

1. Bridges Construction - $28,760.00
2. Skiles & Associates - $35,558.41

OPTIONS:

1. Move to approve the contract with Bridges Construction in the amount $28,7600and authorize the City Manager to approve up to 10% for additional unforeseen contract amendments.
2. Other direction

FISCAL IMPACT:

☐ None ☒ $ 28,760.00 Budgeted Item? ☐ Yes ☒ No

Budget Adjustment Needed? ☐ Yes ☒ No If yes, amount of appropriation increase: $

Affected fund(s): ☐ General Fund ☐ Measure P Fund ☐ Measure V Fund ☒ Other: CDBG Grant

Comments:

STRATEGIC PLAN IMPACT:

☐ Goal #1: Make Clearlake a Visibly Cleaner City

☐ Goal #2: Make Clearlake a Statistically Safer City

☒ Goal #3: Improve the Quality of Life in Clearlake with Improved Public Facilities

☒ Goal #4: Improve the Image of Clearlake

☐ Goal #5: Ensure Fiscal Sustainability of City

☐ Goal #6: Update Policies and Procedures to Current Government Standards

☐ Goal #7: Support Economic Development

SUGGESTED MOTIONS:

Authorize City Manager to enter into a contract with Bridges Construction for the Senior Center Exterior Repair Project and authorize the City Manager to approve up to 10% for additional unforeseen contract amendments.

☐ **Attachments:**

Clearlake, CA

Check Register

Packet: APPKT04355 - 3/25/26 AP CHECK RUN AA

By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: AP-Accounts Payable						
VEN01085	ACC BUSINESS	03/25/2026	Regular	0.00	616.78	21000
VEN01085	ACC BUSINESS	03/25/2026	Regular	0.00	619.92	21001
000591	ACTION SANITARY	03/25/2026	Regular	0.00	261.56	21002
001435	ARGONAUT CONSTRUCTORS	03/25/2026	Regular	0.00	108,056.25	21003
001397	AT&T CALNET 3	03/25/2026	Regular	0.00	68.91	21004
001397	AT&T CALNET 3	03/25/2026	Regular	0.00	62.26	21005
001397	AT&T CALNET 3	03/25/2026	Regular	0.00	635.71	21006
001397	AT&T CALNET 3	03/25/2026	Regular	0.00	225.82	21007
001397	AT&T CALNET 3	03/25/2026	Regular	0.00	32.43	21008
001397	AT&T CALNET 3	03/25/2026	Regular	0.00	153.30	21009
001397	AT&T CALNET 3	03/25/2026	Regular	0.00	31.91	21010
VEN01351	BKF ENGINEERS	03/25/2026	Regular	0.00	106,157.15	21011
000068	BOB'S JANITORIAL	03/25/2026	Regular	0.00	554.51	21012
VEN01178	CALIFORNIA INTERGOVERNMENTAL	03/25/2026	Regular	0.00	50,222.44	21013
VEN01608	CALIFORNIA ONLINE PUBLIC SCHOOI	03/25/2026	Regular	0.00	100.00	21014
VEN01610	CHARLOTTE WHITE	03/25/2026	Regular	0.00	80.71	21015
000548	COMPUTER LOGISTICS	03/25/2026	Regular	0.00	195.00	21016
000548	COMPUTER LOGISTICS	03/25/2026	Regular	0.00	1,800.00	21017
000548	COMPUTER LOGISTICS	03/25/2026	Regular	0.00	271.85	21018
000548	COMPUTER LOGISTICS	03/25/2026	Regular	0.00	1,870.00	21019
000548	COMPUTER LOGISTICS	03/25/2026	Regular	0.00	303.49	21020
VEN01358	DANIELA JUSTUS	03/25/2026	Regular	0.00	225.60	21021
002392	DE LAGE LANDEN PUBLIC FINANCE	03/25/2026	Regular	0.00	1,462.90	21022
000774	DEEP VALLEY SECURITY	03/25/2026	Regular	0.00	235.00	21023
VEN01468	GEI CONSULTANTS INC	03/25/2026	Regular	0.00	250.00	21024
000096	GOLDEN STATE WATER COMPANY	03/25/2026	Regular	0.00	276.49	21025
000096	GOLDEN STATE WATER COMPANY	03/25/2026	Regular	0.00	377.76	21026
000096	GOLDEN STATE WATER COMPANY	03/25/2026	Regular	0.00	50.18	21027
000096	GOLDEN STATE WATER COMPANY	03/25/2026	Regular	0.00	190.67	21028
000096	GOLDEN STATE WATER COMPANY	03/25/2026	Regular	0.00	237.20	21029
000096	GOLDEN STATE WATER COMPANY	03/25/2026	Regular	0.00	345.53	21030
VEN01394	HUNTERS SERVICES INC	03/25/2026	Regular	0.00	285.00	21031
VEN01530	JARROD MAYNARD-JARROD MAYNA	03/25/2026	Regular	0.00	250.00	21032
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	153.86	21033
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	89.07	21034
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	109.42	21035
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	357.62	21036
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	149.38	21037
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	77.50	21038
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	160.18	21039
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	450.00	21040
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	130.18	21041
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	135.94	21042
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	160.46	21043
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	450.00	21044
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	79.54	21045
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	129.00	21046
000304	KONOCTI COUNTY WATER DISTRICT	03/25/2026	Regular	0.00	105.29	21047
001814	LENAHAN LEE SLATER AND PEARSE	03/25/2026	Regular	0.00	7,851.00	21048
VEN01491	MEDEIROS EQUIPMENT LLC	03/25/2026	Regular	0.00	212.18	21049
VEN01693	NANCY ANN COLE	03/25/2026	Regular	0.00	100.00	21050
001489	NAPA AUTO PARTS	03/25/2026	Regular	0.00	9.24	21051
001536	PRECISION WIRELESS SERVICES	03/25/2026	Regular	0.00	2,474.28	21052
VEN01255	REDWOOD EMPIRE MUNICIPAL INSU	03/25/2026	Regular	0.00	198.25	21053

Check Register **Packet: APPKT04355-3**

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
VEN01255	REDWOOD EMPIRE MUNICIPAL INSU	03/25/2026	Regular	0.00	198.25	21054
000085	VESTIS GROUP INC	03/25/2026	Regular	0.00	67.87	21055
000375	VULCAN MATERIALS CO	03/25/2026	Regular	0.00	3,139.70	21056

Bank Code AP Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	60	57	0.00	293,494.54
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	60	**57**	**0.00**	**293,494.54**

Fund Summary

Fund	Name	Period	Amount
999	Pooled Cash	3/2026	293,494.54
			293,494.54

Clearlake, CA

Check Register

Packet: APPKT04377 - 4/8/26 AP CHECK RUN AA

By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: AP-Accounts Payable						
001423	ALLIANT INSURANCE SERVICES INC	04/08/2026	Regular	0.00	944.00	21089
001397	AT&T CALNET 3	04/08/2026	Regular	0.00	31.91	21090
001397	AT&T CALNET 3	04/08/2026	Regular	0.00	31.91	21091
000068	BOB'S JANITORIAL	04/08/2026	Regular	0.00	258.59	21092
001645	CIVIC PLUS	04/08/2026	Regular	0.00	1,886.40	21093
001645	CIVIC PLUS	04/08/2026	Regular	0.00	3,299.66	21094
002021	CO OF LAKE ENVIRONMENTAL HEAL	04/08/2026	Regular	0.00	72.00	21095
001510	COASTAL MOUNTAIN ELECTRIC	04/08/2026	Regular	0.00	13,188.87	21096
VEN01581	CRACKERJACK CLEANING LLC	04/08/2026	Regular	0.00	3,035.00	21097
000774	DEEP VALLEY SECURITY	04/08/2026	Regular	0.00	34.95	21098
000774	DEEP VALLEY SECURITY	04/08/2026	Regular	0.00	104.85	21099
000774	DEEP VALLEY SECURITY	04/08/2026	Regular	0.00	235.00	21100
002308	DOCSVAULT	04/08/2026	Regular	0.00	2,130.00	21101
VEN01386	DOWNEY BRAND LLP	04/08/2026	Regular	0.00	13,970.00	21102
000073	EASTLAKE SANITARY LANDFILL	04/08/2026	Regular	0.00	312.79	21103
VEN01126	ECORP CONSULTING INC	04/08/2026	Regular	0.00	950.00	21104
001199	EUREKA OXYGEN CO	04/08/2026	Regular	0.00	487.76	21105
2404	FLEXTG LLC	04/08/2026	Regular	0.00	91.77	21106
000797	GRANITE CONSTRUCTION	04/08/2026	Regular	0.00	504.65	21107
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	143.45	21108
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	164.61	21109
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	297.54	21110
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	199.64	21111
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	468.00	21112
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	43.66	21113
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	276.31	21114
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	47.49	21115
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	160.81	21116
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	84.76	21117
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	114.46	21118
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	196.19	21119
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	129.99	21120
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	97.88	21121
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	83.92	21122
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	172.86	21123
000121	HIGHLANDS WATER COMPANY	04/08/2026	Regular	0.00	51.03	21124
001554	HINDERLITER DELLAMAS & ASSOC.	04/08/2026	Regular	0.00	1,705.08	21125
001949	ICE WATER DISTRIBUTORS INC	04/08/2026	Regular	0.00	163.80	21126
001949	ICE WATER DISTRIBUTORS INC	04/08/2026	Regular	0.00	107.10	21127
001775	JONES & MAYER	04/08/2026	Regular	0.00	11,993.50	21128
000304	KONOCTI COUNTY WATER DISTRICT	04/08/2026	Regular	0.00	120.22	21129
000304	KONOCTI COUNTY WATER DISTRICT	04/08/2026	Regular	0.00	45.68	21130
000304	KONOCTI COUNTY WATER DISTRICT	04/08/2026	Regular	0.00	224.80	21131
000304	KONOCTI COUNTY WATER DISTRICT	04/08/2026	Regular	0.00	129.54	21132
000304	KONOCTI COUNTY WATER DISTRICT	04/08/2026	Regular	0.00	135.30	21133
000304	KONOCTI COUNTY WATER DISTRICT	04/08/2026	Regular	0.00	167.86	21134
000304	KONOCTI COUNTY WATER DISTRICT	04/08/2026	Regular	0.00	141.06	21135
000108	LAKE COUNTY RECORD BEE	04/08/2026	Regular	0.00	103.40	21136
000077	LAKE COUNTY RECORDER	04/08/2026	Regular	0.00	100.00	21137
001467	LEAGUE OF CALIFORNIA CITIES	04/08/2026	Regular	0.00	80.00	21138
001467	LEAGUE OF CALIFORNIA CITIES	04/08/2026	Regular	0.00	175.00	21139
VEN01123	LOOMIS	04/08/2026	Regular	0.00	693.70	21140
VEN01329	MCGRATH RENTCORP AND SUBSIDIA	04/08/2026	Regular	0.00	1,282.66	21141
000793	MEDIACOM	04/08/2026	Regular	0.00	650.00	21142

Check Register **Packet: APPKT04377-**

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
001489	NAPA AUTO PARTS	04/08/2026	Regular	0.00	734.55	21143
001483	PETERSON CAT	04/08/2026	Regular	0.00	2,340.62	21144
001843	PG&E CFM	04/08/2026	Regular	0.00	4,808.16	21145
	Void	04/08/2026	Regular	0.00	0.00	21146
002031	REDWOOD COAST PETROLEUM & N(	04/08/2026	Regular	0.00	2,375.58	21147
002228	SUMMIT BANK - LOAN OPERATIONS	04/08/2026	Regular	0.00	37,356.41	21148
000085	VESTIS GROUP INC	04/08/2026	Regular	0.00	135.74	21149
000375	VULCAN MATERIALS CO	04/08/2026	Regular	0.00	2,061.64	21150

Bank Code AP Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	87	61	0.00	112,134.11
Manual Checks	0	0	0.00	0.00
Voided Checks	0	1	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	87	**62**	**0.00**	**112,134.11**

Fund Summary

Fund	Name	Period	Amount
999	Pooled Cash	4/2026	112,134.11
			112,134.11

Clearlake, CA

Check Register

Packet: APPKT04392 - 4/16/26 AP CHECK RUN AA

By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: AP-Accounts Payable						
VEN01553	ALVAREZ PERFORMANCE LLC-DBA A	04/16/2026	Regular	0.00	6,520.00	21151
VEN01690	ANDREW N SPARKS	04/16/2026	Regular	0.00	39.92	21152
001397	AT&T CALNET 3	04/16/2026	Regular	0.00	31.91	21153
001397	AT&T CALNET 3	04/16/2026	Regular	0.00	31.91	21154
001397	AT&T CALNET 3	04/16/2026	Regular	0.00	31.91	21155
001665	BRUNO SABATIER	04/16/2026	Regular	0.00	100.00	21156
002162	CALIFORNIA ENGINEERING	04/16/2026	Regular	0.00	17,958.93	21157
VEN01419	CALIFORNIA PARK & RECREATION SC	04/16/2026	Regular	0.00	550.00	21158
000902	CALIFORNIA SURVEYING - DRAFTING	04/16/2026	Regular	0.00	326.25	21159
000902	CALIFORNIA SURVEYING - DRAFTING	04/16/2026	Regular	0.00	326.25	21160
VEN01610	CHARLOTTE WHITE	04/16/2026	Regular	0.00	1,000.00	21161
VEN01696	CITY OF CLEARLAKE ANIMAL ASSOCI	04/16/2026	Regular	0.00	31,250.00	21162
000024	CLEARLAKE POLICE ASSOCIATION	04/16/2026	Regular	0.00	2,000.00	21163
002392	DE LAGE LANDEN PUBLIC FINANCE	04/16/2026	Regular	0.00	1,462.90	21164
001212	DEPT OF HOUSING COMM DEVELOP	04/16/2026	Regular	0.00	22.00	21165
001212	DEPT OF HOUSING COMM DEVELOP	04/16/2026	Regular	0.00	22.00	21166
001835	DIRK SLOOTEN	04/16/2026	Regular	0.00	100.00	21167
000073	EASTLAKE SANITARY LANDFILL	04/16/2026	Regular	0.00	976.91	21168
000004	EDWARD A ROBEY JR	04/16/2026	Regular	0.00	100.00	21169
000120	FED EX	04/16/2026	Regular	0.00	91.85	21170
000120	FED EX	04/16/2026	Regular	0.00	70.29	21171
000120	FED EX	04/16/2026	Regular	0.00	94.76	21172
000120	FED EX	04/16/2026	Regular	0.00	52.59	21173
000120	FED EX	04/16/2026	Regular	0.00	68.26	21174
000120	FED EX	04/16/2026	Regular	0.00	48.35	21175
000096	GOLDEN STATE WATER COMPANY	04/16/2026	Regular	0.00	95.12	21176
000121	HIGHLANDS WATER COMPANY	04/16/2026	Regular	0.00	78.86	21177
000121	HIGHLANDS WATER COMPANY	04/16/2026	Regular	0.00	118.95	21178
000121	HIGHLANDS WATER COMPANY	04/16/2026	Regular	0.00	382.26	21179
000121	HIGHLANDS WATER COMPANY	04/16/2026	Regular	0.00	52.50	21180
VEN01619	JESSICA PYSKA	04/16/2026	Regular	0.00	100.00	21181
001939	JIM SCHOLZ	04/16/2026	Regular	0.00	100.00	21182
002274	JOHN R BENOIT	04/16/2026	Regular	0.00	1,187.50	21183
002272	KENNETH W PARLET II	04/16/2026	Regular	0.00	100.00	21184
VEN01537	KIRSTEN PRIEBE	04/16/2026	Regular	0.00	100.00	21185
000304	KONOCTI COUNTY WATER DISTRICT	04/16/2026	Regular	0.00	119.58	21186
000304	KONOCTI COUNTY WATER DISTRICT	04/16/2026	Regular	0.00	103.58	21187
001825	LAKE COUNTY CLERK	04/16/2026	Regular	0.00	50.00	21188
000108	LAKE COUNTY RECORD BEE	04/16/2026	Regular	0.00	197.53	21189
000077	LAKE COUNTY RECORDER	04/16/2026	Regular	0.00	95.00	21190
000077	LAKE COUNTY RECORDER	04/16/2026	Regular	0.00	95.00	21191
VEN01545	LARKYN E FEILER	04/16/2026	Regular	0.00	7,051.78	21192
002280	LAW OFFICES OF P SCOTT BROWNE	04/16/2026	Regular	0.00	2,213.93	21193
VEN01703	LOWER LAKE YOUTH FOOTBALL INC	04/16/2026	Regular	0.00	100.00	21194
VEN01240	MIDDLETOWN COPY & PRINT - JESSI	04/16/2026	Regular	0.00	128.70	21195
001548	NAPA SOLANO SANE SART	04/16/2026	Regular	0.00	4,800.00	21196
001392	OFFICE DEPOT	04/16/2026	Regular	0.00	359.83	21197
000009	OPERATING ENGINEERS LOCAL 3	04/16/2026	Regular	0.00	684.00	21198
001843	PG&E CFM	04/16/2026	Regular	0.00	1,136.31	21199
001843	PG&E CFM	04/16/2026	Regular	0.00	1,237.46	21200
001843	PG&E CFM	04/16/2026	Regular	0.00	389.16	21201
VEN01494	PLACER LABS INC.	04/16/2026	Regular	0.00	17,640.00	21202
001298	QUACKENBUSH MRRCF	04/16/2026	Regular	0.00	466.64	21203
002031	REDWOOD COAST PETROLEUM & N(	04/16/2026	Regular	0.00	1,502.78	21204

Check Register **Packet: APPKT04392-4** **A**

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
001513	SAN DIEGO POLICE EQUIPMENT	04/16/2026	Regular	0.00	5,108.20	21205
VEN01336	SSA LANDSCAPE ARCHITECTS INC.	04/16/2026	Regular	0.00	533.00	21206
002273	STACEY MATTINA	04/16/2026	Regular	0.00	100.00	21207
002277	STANLEY A ARCHACKI	04/16/2026	Regular	0.00	100.00	21208
002000	SUB TERRA CONSULTING	04/16/2026	Regular	0.00	12,988.70	21209
VEN01412	THE EIDAM CORPORATION - LUCY &	04/16/2026	Regular	0.00	10,596.00	21210
000708	VALIC LOCKBOX	04/16/2026	Regular	0.00	470.00	21211
000085	VESTIS GROUP INC	04/16/2026	Regular	0.00	67.87	21212

Bank Code AP Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	85	62	0.00	133,927.23
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	85	**62**	**0.00**	**133,927.23**

Fund Summary

Fund	Name	Period	Amount
999	Pooled Cash	4/2026	133,927.23
			133,927.23

Clearlake, CA

Check Register

Packet: APPKT04400 - 4/22/26 AP CHECK RUN AA

By Check Number

Vendor Number	Vendor Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Bank Code: AP-Accounts Payable						
VEN01453	AMANDA WALLER	04/22/2026	Regular	0.00	42.30	21213
000101	AMERIGAS	04/22/2026	Regular	0.00	112.00	21214
000101	AMERIGAS	04/22/2026	Regular	0.00	2,321.48	21215
000068	BOB'S JANITORIAL	04/22/2026	Regular	0.00	64.16	21216
VEN01393	CHRISTOPHER WILLIAM INGLIS	04/22/2026	Regular	0.00	75.00	21217
001424	CLEARLAKE WASTE SOLUTIONS	04/22/2026	Regular	0.00	20,486.60	21218
000561	COMM DEVELOP DEPT OF HOUSING	04/22/2026	Regular	0.00	22.00	21219
VEN01109	COMMAND COMMUNICATIONS	04/22/2026	Regular	0.00	8,494.94	21220
000548	COMPUTER LOGISTICS	04/22/2026	Regular	0.00	195.00	21221
000548	COMPUTER LOGISTICS	04/22/2026	Regular	0.00	1,800.00	21222
VEN01627	DEREK E COUNTS II	04/22/2026	Regular	0.00	75.00	21223
VEN01713	DOUG FLEMING GRANTAGE AND GR	04/22/2026	Regular	0.00	17,250.00	21224
000073	EASTLAKE SANITARY LANDFILL	04/22/2026	Regular	0.00	166.77	21225
VEN01108	FAWN CHRISTINE WILLIAMS	04/22/2026	Regular	0.00	75.00	21226
000120	FED EX	04/22/2026	Regular	0.00	136.60	21227
VEN01272	FOUNTAIN PEOPLE INC A PLAYCORE	04/22/2026	Regular	0.00	489.63	21228
VEN01394	HUNTERS SERVICES INC	04/22/2026	Regular	0.00	285.00	21229
VEN01418	JACK SMALLEY	04/22/2026	Regular	0.00	75.00	21230
VEN01678	JESUS LAZO RODRIGUES	04/22/2026	Regular	0.00	300.00	21231
VEN01218	KAREN PAVONE	04/22/2026	Regular	0.00	1,541.35	21232
000304	KONOCTI COUNTY WATER DISTRICT	04/22/2026	Regular	0.00	450.00	21233
VEN01392	LANGUAGE LINE SERVICES INC - DBA	04/22/2026	Regular	0.00	27.26	21234
001489	NAPA AUTO PARTS	04/22/2026	Regular	0.00	18.49	21235
001392	OFFICE DEPOT	04/22/2026	Regular	0.00	200.97	21236
002270	OPENGOV, INC	04/22/2026	Regular	0.00	70,723.73	21237
001836	PAK N MAIL	04/22/2026	Regular	0.00	212.06	21238
002242	PARODI INVESTIGATIVE SOLUTIONS	04/22/2026	Regular	0.00	4,500.00	21239
001843	PG&E CFM	04/22/2026	Regular	0.00	453.00	21240
001843	PG&E CFM	04/22/2026	Regular	0.00	284.10	21241
001843	PG&E CFM	04/22/2026	Regular	0.00	133.27	21242
001298	QUACKENBUSH MRRCF	04/22/2026	Regular	0.00	129.96	21243
VEN01625	RAYMOND A. SILVA	04/22/2026	Regular	0.00	75.00	21244
VEN01255	REDWOOD EMPIRE MUNICIPAL INSU	04/22/2026	Regular	0.00	198.25	21245
000506	SIGNS OF RANDY HARE	04/22/2026	Regular	0.00	1,470.00	21246
001432	SUN RIDGE SYSTEMS RIMS	04/22/2026	Regular	0.00	2,248.75	21247
001812	SUTTER HEALTH	04/22/2026	Regular	0.00	25.00	21248

Bank Code AP Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	42	36	0.00	135,157.67
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	42	**36**	**0.00**	**135,157.67**

Fund Summary

Fund	Name	Period	Amount
999	Pooled Cash	4/2026	135,157.67
			135,157.67

CITY COUNCIL REGULAR MEETING

Clearlake City Hall Council Chambers
14050 Olympic Dr, Clearlake, CA
Thursday, April 02, 2026
Regular Meeting 6:00 PM

MINUTES

A. ROLL CALL

PRESENT
Mayor Dirk Slooten
Vice Mayor Tara Downey
Councilmember Russ Cremer
Councilmember Jessica Hooten
Councilmember Mary Wilson

B. PLEDGE OF ALLEGIANCE

C. INVOCATION/MOMENT OF SILENCE

D. ADOPTION OF THE AGENDA

Motion made by Councilmember Cremer, Seconded by Vice Mayor Downey.

Voting Yea: Mayor Slooten, Vice Mayor Downey, Councilmember Cremer, Councilmember Hooten, Councilmember Wilson

E. PRESENTATIONS

1. Presentation of a Proclamation Declaring April 2026 as Child Abuse Awareness Month
2. Presentation of a Proclamation Declaring April 2026 as Arts, Culture, and Creativity Month
3. Presentation of a Proclamation Declaring April 2026 as Fair Housing Month

F. PUBLIC COMMENT

Crystal Pack spoke regarding code enforcement issues at her home.

Kathy Plowman spoke regarding animal control.

G. CONSENT AGENDA

Motion made by Vice Mayor Downey, Seconded by Councilmember Cremer.
Voting Yea: Mayor Slooten, Vice Mayor Downey, Councilmember Cremer, Councilmember Hooten, Councilmember Wilson

4. Amended 2025 Annual Housing Element Progress Report
   Recommended Action: Receive and File the Amended 2025 Annual Progress Report

5. Warrants
   Recommended Action: Receive and file

6. Minutes
   Recommended Action: Receive and file

7. Second Reading of Ordinance 286-2026 Amending Section 6-10.111 of the Clearlake Municipal Code Regarding Tobacco Retail Licensing
   Recommended Action: Hold second reading of Ordinance No. 286-2026, read by title only, waive further reading, and and adopt ordinance

H. BUSINESS

8. Agreement with the City of Lakeport for Supplemental Law Enforcement Services
   Recommended Action: Approve agreement and authorize the City Manager to sign

   Chief Hobbs gave the staff report.

   Motion made by Councilmember Cremer, Seconded by Vice Mayor Downey.
   Voting Yea: Mayor Slooten, Vice Mayor Downey, Councilmember Cremer, Councilmember Hooten, Councilmember Wilson

9. Discussion and Consideration of Employment Services Agreement with Alan Flora as City Manager
   Recommended Action: Approve Agreement

   City Attorney Drexel gave the staff report.

   Motion made by Councilmember Cremer, Seconded by Vice Mayor Downey.
   Voting Yea: Mayor Slooten, Vice Mayor Downey, Councilmember Cremer, Councilmember Hooten, Councilmember Wilson

I. CITY MANAGER AND COUNCILMEMBER REPORTS

J. FUTURE AGENDA ITEMS

Mayor Slooten asked for a presentation by Lafco.

K. CLOSED SESSION

(10) CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION - Initiation of litigation pursuant to Government Code § 54956.9(d)(4): (1 case)

(11) Conference with Labor Negotiators: Pursuant to Government Code Section 54957.6: Agency designated representatives: City Manager Flora, Administrative Services Director Swanson; Employee Organization: Clearlake Middle Management Association; Clearlake Police Officers Association; Clearlake Municipal Employees Association

(12) CONFERENCE WITH LEGAL COUNSEL - ANTICIPATED LITIGATION- Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2): 33 potential cases
Claimants: Robert Denman; Ford Denman; Daniel Cunningham; Lucila Cuevas; Vicki Crystal, et al.; Robert Courtois; Charles Bonnici; Valery Beswick, et al; Sandra Blakeney; David Andrade, Ximena Marin; Myrna Aleman; Douglas Aleman, et al; Shanti Zaragoza, et al; Fawn Williams, et al; Virginia Torres; Claudia Torres; Mary Stiehr, et al; William Steward, et al; Stephanie Piseno, et al; Jamie Stevens, et al; David Pimentel; James Newman; David Morgan; James King, et al; Lorna Madden-Hoffman; Teresa Miklaj; Barbara Montalvan; Douglas Johnpeer; Thomas Fortino, et al; Randolph Ivey, et al; Jessie Ivey, et al; Savannah Garrett; Melissa Dryman, et al; - Claims related to the Robin Lane sewage spill, Clearlake

Motion to deny the claims presented.

Motion made by Mayor Slooten, Seconded by Vice Mayor Downey.
Voting Yea: Mayor Slooten, Vice Mayor Downey, Councilmember Cremer, Councilmember Hooten, Councilmember Wilson

L. ANNOUNCEMENT OF ACTION FROM CLOSED SESSION

M. ADJOURNMENT

The meeting was adjourned at 8:45 p.m.

Melissa Swanson

Melissa Swanson, Administrative Services Director/City Clerk

CITY COUNCIL REGULAR MEETING

Clearlake City Hall Council Chambers
14050 Olympic Dr, Clearlake, CA
Thursday, April 16, 2026
Regular Meeting 6:00 PM

MINUTES

A. ROLL CALL

PRESENT
Mayor Dirk Slooten
Vice Mayor Tara Downey
Councilmember Russ Cremer
Councilmember Jessica Hooten
Councilmember Mary Wilson

B. PLEDGE OF ALLEGIANCE

C. INVOCATION/MOMENT OF SILENCE

D. ADOPTION OF THE AGENDA

City Manager Flora announced that the presentation of the PEG Annual Report would be made at a future agenda.

Motion made by Councilmember Cremer, Seconded by Vice Mayor Downey.
Voting Yea: Mayor Slooten, Vice Mayor Downey, Councilmember Cremer, Councilmember Hooten, Councilmember Wilson

E. PRESENTATIONS

1. Presentation of April's Adoptable Dogs

2. Presentation by the Lake County Office of Education on Positive Community Norms

3. Presentation of the Public Education and Government Television Annual Board Report

   This item was postponed to a future agenda.

F. PUBLIC COMMENT

Mayor Slooten read a proclamation declaring Public Telecommunicators Week.

Justine Batie asked for the City to consider making Clearlake a Slow City and reduce speed limits throughout the City.

Jennifer Eisley spoke regarding the lack of care by North Bay Animal Services and the need to support CAA.

Mark Westin spoke regarding a code enforcement issue with a burned out house next to his.

G. CONSENT AGENDA

Motion made by Councilmember Cremer, Seconded by Councilmember Wilson.
Voting Yea: Mayor Slooten, Vice Mayor Downey, Councilmember Cremer, Councilmember Hooten, Councilmember Wilson

4. Lake County Vector Control Board Minutes
   Recommended Action: Receive and file

5. Consideration of Resolution No 2026-13, A Resolution of the City of Clearlake, approving a temporary street closure for the May 3rd, Sober Grad Vendor Fair
   Recommended Action: Adopt resolution

H. BUSINESS

6. Discussion and Consideration of Establishing the Clearlake Reconnect and Recovery Support Initiative with Woodland Community College
   Recommended Action: Approve the Proposal and Authorize the City Manager to Execute an Agreement

   City Manager Flora gave the staff report.

   Motion made by Councilmember Cremer, Seconded by Councilmember Wilson.
   Voting Yea: Mayor Slooten, Vice Mayor Downey, Councilmember Cremer, Councilmember Hooten, Councilmember Wilson

7. Discussion and Consideration of Purchase of a Street Sweeper
   Recommended Action: Approve the purchase of one (1) street sweeper in an amount not to exceed $80,000 and authorize the City Manager to execute all necessary documents for procurement.

   Public Works Director Leyba gave the staff report.

   Motion made by Vice Mayor Downey, Seconded by Councilmember Hooten.
   Voting Yea: Mayor Slooten, Vice Mayor Downey, Councilmember Cremer, Councilmember Hooten, Councilmember Wilson

I. CITY MANAGER AND COUNCILMEMBER REPORTS

J. FUTURE AGENDA ITEMS

K. CLOSED SESSION

(8) Conference with Labor Negotiators: Pursuant to Government Code Section 54957.6: Agency designated representatives: City Manager Flora, Administrative Services Director Swanson; Employee Organizations: Clearlake Middle Management Association; Clearlake Municipal Employees Association; Clearlake Police Officers Association

(9) CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION - Initiation of litigation pursuant to Government Code § 54956.9(d)(4): (1 case)

L. ANNOUNCEMENT OF ACTION FROM CLOSED SESSION

There was no action taken in closed session.

M. ADJOURNMENT

The meeting was adjourned at 8:20 p.m.

Melissa Swanson

Melissa Swanson, Administrative Services Director/City Clerk

CITY COUNCIL SPECIAL MEETING

Clearlake City Hall Council Chambers
14050 Olympic Dr, Clearlake, CA
Thursday, April 30, 2026
Closed Session 4:00 PM

MINUTES

A. ROLL CALL

PRESENT
Mayor Dirk Slooten
Vice Mayor Tara Downey
Councilmember Russ Cremer
Councilmember Jessica Hooten
Councilmember Mary Wilson

B. PLEDGE OF ALLEGIANCE

C. CLOSED SESSION

(1) CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION - Initiation of litigation pursuant to Government Code § 54956.9(d)(4): (1 case)

D. ANNOUNCEMENT OF ACTION FROM CLOSED SESSION

There was no reportable action taken in closed session.

E. ADJOURNMENT

The meeting was adjourned at 5:30 p.m.

Melissa Swanson

Melissa Swanson, Administrative Services Director/City Clerk

CITY OF CLEARLAKE

City Council

STAFF REPORT

SUBJECT:	Consideration of Resolution 2026-14 Authorizing the Extension of the Temporary Road Closure of Certain Roads, to Reduce Illegal Dumping and to Protect the Environment, and Public Health and Welfare	**MEETING DATE:**	May 7, 2026
SUBMITTED BY:	Adeline Leyba, Public Works Director		
PURPOSE OF REPORT:	☐ Information only ☐ Discussion ☒ Action Item		

WHAT IS BEING ASKED OF THE CITY COUNCIL/BOARD:

The City Council is being asked to consider extending the closure of roads to reduce illegal dumping and to protect the environment and public health and welfare.

BACKGROUND/DISCUSSION:

In November 2025, the City Council conducted a public hearing and authorized the closure of certain roadways to deter illegal dumping and related unlawful activities. Following this action, the City procured and installed substantial lengths of K-Rail barriers, gates, and other materials to physically restrict access to the area. While these measures were initially effective, additional reinforcement has been required periodically to maintain their integrity.

Staff has determined that the closure has been successful in reducing illegal dumping in the area and recommends that it be extended. Pursuant to the California Vehicle Code, a public hearing must be held every 18 months to continue the road closure.

The affected area, commonly known as the "Gobi Desert," is a largely undeveloped portion of the City located west of Acacia Street, north of Sonoma Avenue, east of Park Street, and south of Eastlake Drive. The closure applies to all or portions of Oleander, Mint, Peony, Toyon, and Oregon Streets, as well as Burns Valley Road from Arrowhead Drive to Acacia Street. In addition to the roadways identified above, closures are also proposed for areas north of Dam Road, which include a portion of the roadways between 2nd Ave. and 12th Ave. from East Drive to Wilkinson.

OPTIONS:

1. Adopt Resolution 2026-14
2. Provide Direction to Staff.

FISCAL IMPACT:

☒ None ☐ Budgeted Item? ☐ Yes ☐ No

Budget Adjustment Needed? ☐ Yes ☒ No If yes, amount of appropriation increase: $

Affected fund(s): ☐ General Fund ☐ Measure P Fund ☐ Measure V Fund Other:

Comments**:**

STRATEGIC PLAN IMPACT:

☒ Goal #1: Make Clearlake a Visibly Cleaner City

☒ Goal #2: Make Clearlake a Statistically Safer City

☒ Goal #3: Improve the Quality of Life in Clearlake with Improved Public Facilities

☒ Goal #4: Improve the Image of Clearlake

☐ Goal #5: Ensure Fiscal Sustainability of City

☐ Goal #6: Update Policies and Procedures to Current Government Standards

☒ Goal #7: Support Economic Development

SUGGESTED MOTIONS:

Adopt Resolution 2026-14

☒ **Attachments:**

Resolution 2026-14

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLEARLAKE AUTHORIZIN EXTENSION OF THE TEMPORARY CLOSURE OF CERTAIN ROADS, TO REDUCE ILLEGAL DUMPING AND TO PROTECT THE ENVIRONMENT, AND THE PUBLIC HEALTH AND WELFARE

WHEREAS, the City Council adopted Resolution 2025-40, on November 20, 2025 which approved the temporary closure of the following segment of a road in the City of Clearlake:

1. Burns Valley Road – from Arrowhead Dr. to Acacia St.
2. All or portions of Oleander, Mint, Peony, Toyon, and Oregon
3. 2nd Avenue from Wilkinson Avenue to East Drive; 3rd Avenue from Wilkinson Avenue to East Drive; 4th Avenue from Wilkinson Avenue to East Drive; 5th Avenue from Konocti Avenue to East Drive; 6th Avenue from Konocti Avenue to East Drive; 7th Avenue from Dam Road to Cache Street; 8th Avenue from Boyles Avenue to Wilkinson Avenue; 10th Avenue from Boyles Avenue to Parker Avenue; 12th Avenue from Boyles Avenue to Parker Avenue; Boyles Avenue from Dam Road to 7th Avenue; Konocti Avenue from 6th Avenue to 8th Avenue; Mataeo Avenue from 10th Avenue to 12th Avenue; Wilkinson Avenue from Dam Road to 12th Avenue; Parker Avenue from second Avenue to 5th Avenue; Cache Street from Dam Road to 6th Avenue; East Drive from Dam Road to 6th Avenue;2nd Avenue from Dam Road to Dam Road.

Pursuant to Vehicle Code section 21101.4, the road closures are for a period of eighteen (18) months;

WHEREAS, the closure was deemed necessary for the health and welfare of the public and the protection of the environment, related to the excessive illegal dumping at these locations;

WHEREAS, the City Council finds that continuation of the temporary closure for an additional eighteen(18) months is necessary. Based upon a recommendation from the Clearlake Police Department, the City Council finds the continuation of the temporary closure will assist in preventing the occurrence of illegal dumping, as the dumping continues to exist near these roads.

WHEREAS, the City finds these roads are not designated as a through highway or arterial street. Vehicular and pedestrian traffic on these roads is a contributing factor to the illegal dumping issue.

WHEREAS, the preceding closure of these roads has not substantially adversely affected traffic flow, safety on the adjacent streets and surrounding neighborhoods, the performance of municipal or public utility services, or the delivery of freight by commercial vehicles in the area of the roads that were temporarily closed.

NOW, THEREFORE, the City Council of the City of Clearlake, incorporated and in light of the above whereas sections, hereby authorizes the temporary road closure of the road segments listed above for an additional eighteen (18) months.

PASSED AND ADOPTED on May 7, 2026 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Mayor, City of Clearlake

ATTEST:

_____

City Clerk, City of Clearlake

CITY OF CLEARLAKE

City Council

STAFF REPORT

SUBJECT: Discussion and Consideration of Actions Regarding Concerns with the Lake County Sanitation District	**MEETING DATE:** May 7, 2026
SUBMITTED BY: Alan D. Flora, City Manager	
PURPOSE OF REPORT: ☐ Information only ☒ Discussion ☒ Action Item	

WHAT IS BEING ASKED OF THE CITY COUNCIL/BOARD:

The City Council is being asked to provide staff direction on addressing on-going challenges with the Lake County Sanitation District.

BACKGROUND/DISCUSSION:

The Lake County Sanitation District was formed by the Board of Supervisors in 1963. At the time it included all of the County with the exception of the City of Lakeport and Clearlake Oaks. The District was established for the purpose of constructing wastewater improvements in various areas of the County. Multiple assessment districts were formed, within the District to finance sewer collection. A total of 10 assessment districts are completely or partially within the City of Clearlake. The Lake County Sanitation District (LACOSAN) is a separate legal entity from the County of Lake, but has always been governed by the Lake County Board of Supervisors as its Board of Directors. The Sanitation District has no staff and is operated and managed by staff from Lake County Special Districts, with direction from the Board. Lake County Special Districts also manages other utility districts within the County and is split into three Utility Areas: 1 (Clearlake, Spring Valley, Middletown), 2 (Kelseyville, Cobb, South Lakeport), 3 (North Lakeport, Upper Lake, Nice, Lucerne, Glenhaven).

According to the information available on Special Districts website, the sewer system has 11,053 connections (excluding 932 connections in Kelseyville's system which is not a part of LACOSAN). This includes 492 connections in Middletown, 196 connections in South Lakeport, 4,088 connections in the Northeast system (North Lakeport, Upper Lake, Nice, Lucerne, Glenhaven), and 6,277 connections in the Southeast system (Clearlake and Lower Lake). It should be noted that these numbers appear to be several years old and do not reflect a significant number of new connections in Clearlake over the past several years. The population served by LACOSAN that resides within the City is approximately 60%.

When the City was incorporated in 1980, the conditions of the District changed and a shift of governance should have occurred. There was no change at the time and some years later the City realized they should have been afforded a role in the governance of the District per Health and Safety Code (HSC) 4730. In 1983 the City Council took action to formally designate the Board of Supervisors as the governing Board of LACOSAN, essentially foregoing its right at that time to be involved in the governance.

After a significant period of time trying to address concerns over system operation and main a staff level, in April of 2024 the City Council took action to request the Board of Supervisors meet with the City to determine a governance structure was consistent with HSC 4730 and the population of those served by the District.

Requests to meet from the City were unsuccessful until February of 2025 the Board narrowly voted (3-2) to meet with the City and appointed Supervisor Sabatier and Supervisor Owen for that role. Still no meeting was scheduled and attempts by the City to schedule a meeting were again unsuccessful. In November of 2025, the City Council took action to rescind the delegation of authority from 1983. This action did result in a staff level discussion in January and four meetings with City/County representatives since then to discuss issues, however an agreement regarding the City's role in governance is still a stalemate.

The City's determination for a representative role in the governance of the system is rooted in longstanding concerns over operations and maintenance of the system and under the current administration frequent hurdles and unnecessary conflict for development projects that require sewer service and infrastructure projects that require the adjustment of utilities.

While no incidents are more reflective of the issues with the system than the 2026 Robin Lane Sewer Spill, problems in the Southeast system are not new. Since 2007 over 2.8 million gallons of sewage has been spilled from the system, LACOSAN reports that 1.25 million gallons was recovered and 1.55 million gallons lost to surface waters (creeks, waterways, and Clear Lake). It should also be noted that the data reflects that the frequency and volume of spills is getting worse. 82% of the spill volume in the past 19 years has happened in the past five years (2.36 million gallons spilled). Even this data illustrates a number of concerns with how spills are calculated. The calculations submitted by LACOSAN on large spills do not seem to match reality on the ground and the data from the State Boards website simply does not add up.

The Regional Water Board has issued a series of notices of violations over the years, with NOVs in 2010, 2011, 2012, 2013, 2015 and 2024. The 2024 notice included three violations and seven areas of concern.

Violations

1. *Based on review of CIWQS data reported by the Enrollee between 2007 and 2023, the Enrolled reported that 1,057,089 gallons of untreated sewage reached surface waters.*
2. *The Enrollee does not have a formal capital improvement plan (CIP).*
3. *The Enrollee failed to submit and certify No Spill Reports, Category 4 Spill Reports, and SSO* [sanitary sewer overflows] *Reports within the required timeline.*

Areas of Concern

1. *The Enrollee does not have emergency signage for aerial crossing or ARVs.*
2. *There has been a significant delay in alarm notification from the Enrollee's third-party alarm company.*
3. *The Enrollee has had difficulties obtaining a capacity management operation and maintenance (CMOM) coordinator.*
4. *The Enrollee does not have formalized standard operating procedures (SOPs) for training and operation and maintenance.*
5. *The Enrollee does not re-review CCTV footage after the initial inspection.*
6. *The Enrollee does not have a method in place to inspect and maintain air relief valves (ARVs).*

7. *The Enrollee does not use a computerized maintenance management system (CMMS) on historical knowledge of problem areas.*

It is very concerning to note that many of these violations and concerns from the primary regulatory agency (Regional Water Board) have not been clearly addressed. Those on-going concerns continue to result in spills within our community, such as Robin Lane.

The questions around operations, maintenance, and whether the District has a corrective action plan underline the necessity for immediate answers. A list of documents/materials that need to be provided to the City within 10-days are listed below.

- All documents associated with the creation of, or changes to, the Assessment Districts that make up the Southeast system.
- After Action Report of 2026 Robin Lane Sewer Spill from Special Districts.
- Formal determination of cause of the 2026 Robin Lane Sewer spill and evidentiary support, including line pressure readings before, during and after the incident at all pressurized mains in and around Lift Station #1.
- Corrective Action Plan to be implemented for 2026 Robin Lane Sewer spill.
- Maintenance logs of collection system and treatment plant for the past five years, and specifically including lift stations, valves, air relieve valves and manholes.
- Analysis of direct in-line pumping system pilot installed at Lift Station #6 and determination on applicability at other lift stations.
- Status of Integrated Regional Watershed Management (IRWM) grant funding for slip lining in the Southeast system.
- Identification and description of which sanitary sewer overflows (SSO) were caused by natural disasters/wildfires in 2019 as reported to the Water Board.
- Standard operating procedures for training of capacity management operation and maintenance supervisor and standard operating procedures for operation and maintenance of the Southeast system.
- Logs of CCTV footage collected since 2021, including locations.
- Logs of SL-RAT data collected since 2021, including locations.
- Logs of line cleaning conducted since 2021, including locations.
- Logs of alarm notifications since 2021, including locations.
- Logs of manholes with/without manhole barrier lids to protect from Inflow/Infiltration (I&I)
- Copies of CCTV footage collected since 2021.
- Identification of any corrective action taken as a result of CCTV footage.
- Proof of implementation and utilization of computerized maintenance management system.
- Implementation plan or proof of completion of emergency signage for aerial crossings and air relief valves.
- Implementation plan for corrective action for Notice of Violation issued by Lake County Air Quality Management District in 2023 for failed odor control systems at Lift Stations #1 and #2.
- Capital Improvement Plan for the Southeast system.
- List of all funding applied for or requested from any federal, state or local agency or representative since 2021.
- Background report for proposed 2026 fee increase presented to the Board.
- Breakdown of overhead and staffing charges paid from the Southeast system to Lake County Special Districts administration over the past 5 years.

It has been and remains frustrating to see little concern over either the Robin Lane Sewer Spill, or the frequent issues with the Southeast system from Special Districts leadership or a majority of the Board of Supervisors. This results in stalled development, frequent system failures in the same locations, no apparent inspection or corrective action plan, and a nearly complete disregard for the impacts the

infrastructure causes on over 25% of Lake County population. This lack of care and conce resulted in the creation of an incident management team to address response efforts during the Robin Lane emergency.

Staff is recommending a number of actions be taken to generate the attention of the Board of Supervisors, Special Districts leadership, and various regulatory agencies to take the system reliability seriously and to value our community.

OPTIONS:

1. Send Demand for Records and Information to the Board of Supervisors/Special Districts/LACOSAN
    a. File formal demand for LACOSAN/Special Districts/County conduct independent testing of surface water within all waterways near the Southeast treatment plant and between it and Clear Lake.
2. File formal complaints to regulatory agencies regarding the status of the Southeast System
    a. Environmental Protection Agency
    b. State Water Resources Control Board
    c. Regional Water Resources Control Board
    d. California Natural Resources Agency
    e. Lake County Public Health
    f. Lake County Water Resources
    g. Lake County Air Quality Management District
3. Implementation of an independent engineering analysis of the Southeast system and identify deficiencies and corrective action as needed.
4. Direction to file notices of violation for any known public health and safety issues related to the Southeast system under the jurisdiction of the City of Clearlake.
5. Direction to staff to apply to the Lake County Local Agency Formation Commission (LAFCo) for detachment of the Southeast system from LACOSAN.
6. Rescind authorization given to City Manager to provide the City's consent to purchase tax defaulted properties (January 16, 2025) until such time as a beneficial system upgrade project can be analyzed.
7. Other Direction to Staff.

FISCAL IMPACT:

☐ None ☐ $ Budgeted Item? ☐ Yes ☐ No

Budget Adjustment Needed? ☐ Yes ☒ No If yes, amount of appropriation increase: $

Affected fund(s): ☐ General Fund ☐ Measure P Fund ☐ Measure V Fund ☐ Other:

Comments**:**

STRATEGIC PLAN IMPACT:

☒ Goal #1: Economic Development

☒ Goal #2: Public Facilities and Infrastructure

☒ Goal #3: Celebrate Clearlake

☒ Goal #4: Clean

☒ Goal #5: Fiscal Sustainability

☒ Goal #6: Safe

SUGGESTED MOTIONS:

Direct Staff to Implement Enclosed/Recommended Options.

☒ **Attachments:**

1. 2023 Compliance Evaluation Inspection Report
2. 2024 Notices of Violation
3. 2023 Pre-Inspection Questionnaire
4. 2024 NOV Response from Special Districts
5. April 10, 2026 Robin Lane Spill Report & Attachments
6. 2010 LACOSAN Municipal Service Review
7. Southeast System spill reports (from State Board)

LAKE COUNTY SOUTHEAST REGIONAL WASTE DISPOSAL FACILITY COLLECTION SYSTEM COMPLIANCE EVALUATION INSPECTION REPORT

Name/Location of Facility Inspected:
Lake County Southeast Regional Waste Disposal Facility Collection System
230 North Main Street
Lakeport, CA 95453

Inspected By:
German Myers[1], WRCE[2], SWRCB[3]
Jamie Johnson, WRCE, SWRCB
Justin Shen, WRCE, SWRCB
Kenny Croyle, WRCE, CVRWQCB[4]

Date:
11-08-2023 Field Inspection
Start: 0852
End: 1433
Consent given by Scott Harter at 0856

Prepared By:
German Myers, WRCE

Reviewed By:
Tomas Eggers, Senior WRCE

WDID Number: 5SSO11055
Water Quality Order No: 2022-0103-DWQ
Legally Responsible Official (LRO): Scott Harter, Special Districts Administrator

FACILITY REPRESENTATIVES

Name:	Title:	Email:
Scott Harter	Administrator	scottharter@lakecountyca.gov
Scott Hornung	Deputy Administrator	scott.hornung@lakecountyca.gov
Steve Phillips	Utility Systems Compliance Coordinator	steven.phillips@lakecountyca.gov
Phillip Spooner	Superintendent	phillip.spooner@lakecountyca.gov
Jesus Salmeron	Deputy Administrator – Fiscal	jesus.salmeron@lakecountyca.gov

FACILITY DESCRIPTION

Lake County owns and operates the Southeast Regional Waste Disposal Facility Collection System (hereafter, Southeast CS) which has approximately 95.77 miles of gravity sewers, 16.4 miles of force mains, and 21 pump stations, serving approximately 13,176 customers. All wastewater collected within the Southeast CS is discharged into the Southeast Regional Wastewater Treatment Plant (WWTP) which is also owned and operated by Lake County. The Southeast CS is located within the jurisdiction of the Central Valley Regional Water Quality Control Board (Central Valley Water Board) and operates under State Water Resources Control Board (State Water Board) Water Quality Order

[1] Lead Inspector
[2] Water Resource Control Engineer
[3] State Water Resources Control Board
[4] Central Valley Regional Water Quality Control Board

No. 2022-0103-DWQ "Statewide Waste Discharge Requirements, General Order for Sanitary Sewer Systems" (SSS WDRs).

PURPOSE OF INSPECTION

On September 22, 2023, the Office of Enforcement (OE) sent a Notice of Inspection (Notice) to Mr. Scott Harter, Special Districts Administrator for Lake County **(Attachment A – Notice of Inspection)**. The Notice informed Lake County that OE staff would be conducting a compliance evaluation inspection (CEI) of the Southeast CS to evaluate overall compliance with SSS WDRs. The Notice also requested Lake County to fill out a Pre-Inspection Questionnaire, which Lake County returned on October 23, 2023 **(Attachment B – Pre-Inspection Questionnaire)**. OE reached out to Mr. Harter on October 18, 2023, to schedule a field inspection of the Southeast CS for November 8, 2023.

RECORD REVIEW

Prior to the inspection, OE staff reviewed information uploaded to the California Integrated Water Quality System (CIWQS) database and information provided by Lake County. OE Staff reviewed the documents and information described below and compiled a list of key items noted to prepare for the inspection.

Pre-Inspection Questionnaire

- Lake County has installed 210 manhole barrier lids to address inflow and infiltration (I/I) issues and plans to install 500-700 more.
- Lake County is using the acoustic inspection tool Sewer Line Rapid Assessment Tool (SL-RAT) to inspect pipelines.
- Lake County conducts smoke testing for I/I.
- Pump stations are inspected weekly and cleaned annually.
- Lake County owns and operates four other collection systems.
- There is one pump station that does not have an autodialing or supervisory control and data acquisition (SCADA) system.
- Lake County does not currently use a computerized maintenance management system (CMMS) but are in the process of using CivicSpark to create a geographic information system (GIS) asset management system.
- Service requests are issued from the cost accounting management system and are based on historical knowledge of problem areas.
- There are three "hot spot" locations.
- There is no current method of inspecting air relief valves (ARVs).
- A system-wide closed-circuit television (CCTV) inspection was done in 2019 but 0% was reviewed and ranked.
- There are 30-40 miles of planned inspections and 4-5 miles of planned cleaning for the next fiscal year (FY).
- There are 54 food service establishments (FSEs).
- There were 59 complaints in the previous FY.

2022 Sewer System Management Plan (SSMP)

- Historically, there has been significant I/I during the winter season.

- Upgrades to the pump stations and efforts to reduce I/I have alleviated stress on the system.
- The Southeast CS operates out of Lake County's Utility Area 1.
- Lake County is developing a GIS to maintain system history and records.
- The fats, oil, and grease (FOG) program is enforced by the sewer use ordinance.
- The operation and maintenance (O/M) program consist of system mapping, preventative O/M, rehabilitation and replacement, training, and contingency equipment and replacement inventory.
- System capacity and funding for capital improvement projects has historically been an issue.
- Short- and long-term improvements projects would be identified once capacity assessments are completed.

2022 SSMP Audit

- Accomplishments in the previous 12 months from the audit were as follows:
- Lake County surveyed 58 miles using the SL-RAT.
- Lake County cleaned 1.2 miles of pipelines.
- Lake County performed three-point repairs.
- Lake County installed 210 manhole lid barriers.
- Lake County inspected 54 manholes.
- Lake County inspected 8 FSEs.
- There were 31 sanitary sewer overflows (SSOs) from 2016-2021, 18 of which were caused by roots or capacity exceedances.
- Lake County has been unable to fill the capacity management operation and maintenance coordinator position.
- Lake County has not performed FOG inspections at the desired interval.
- Lake County has a goal of inspecting all FSEs annually.
- The SSMP updates and audits have not been performed in the past until the most recent update and audit.

CIWQS Annual Report

- The annual report was last updated on September 28, 2022.
- Approximately $5.7 million is the annual budget for O/M.
- Approximately $2.8 million is the annual budget for capital expenditures.
- The Southeast CS is 95% residential and 5% commercial.
- Lake County is responsible for lower laterals in the Southeast CS.
- 1 mile of pipeline was cleaned, and 55 miles were inspected in 2021.
- The Southeast CS has a peaking factor of 6.2.
- There are 73 aerial/underground gravity sewer crossings and 24 force main aerial/underground crossings of water bodies.

CIWQS SSO Reports, Violations, and No Spill Reports

- There have been 27 reported SSOs since 2019.
- The last reported SSO was in March 2023.
- Approximately 50% of the SSOs since 2019 were caused by roots or capacity exceedances.
- The No Spill Reports for July and August of 2023 have not been submitted.

- A 600,000-gallon SSO occurred on March 21, 2023, due to a pump station failure.
- Large volume SSOs occurred in 2019 due to natural disasters.

FOG Program

- The FOG Program is implemented by site visits to FSEs, educating the public and FSEs on best management practices (BMPs), coordinating with the building and health department, and tracking compliance and inspections.
- Lake County has BMPs for commercial and residential FOG on their website.[5]
- The ordinance prevents illicit discharges, limits FOG and other debris, and gives Lake County the ability to enforce and inspect FSEs.
- The FOG Program requires grease interceptors for FSEs.

PRE-FIELD INSPECTION CONFERENCE

Introduction

The inspection team arrived at the Southeast WWTP, located at 2485 Old Highway 52, Clearlake, CA 95422, at approximately 0852 and met with the Lake County representatives listed above. I, German Myers, began with introductions and passed around a sign-in sheet **(Attachment C – Sign-In Sheet)**. I stated that the purpose of the inspection was to evaluate the Southeast CS and compliance with the SSS WDRs. At 0856, Mr. Harter verbally gave consent to conduct the inspection, which included asking questions, taking notes, and taking photos.

Staffing

I started by asking Lake County about staffing and whether the Southeast CS operates out of Utility Area 1. Mr. Harter confirmed that the Southeast CS operates out of Utility Area 1 and that Lake County has three utility areas located throughout the county. Mr. Harter stated that Lake County owns and operates four other collection systems, which are the Kelseyville, Middletown, Lake County Sanitation District, and Northwest collection systems. Mr. Phillip Spooner, Superintendent for Utility Area 1, stated that there are eight maintenance positions, three electro-mechanical technicians (EMTs), and two treatment plant operators. Mr. Spooner added that they are looking to convert one of the open maintenance positions into another operator position. I asked if Utility Area 1 covers any of the other collection systems. Mr. Spooner stated that Utility Area 1 covers two other collection systems, and that staff and equipment are shared throughout the three systems within Utility Area 1.

I then asked about Lake County's difficulties in obtaining a capacity management operation and maintenance (CMOM) coordinator. Mr. Harter explained that they have not had a CMOM coordinator for about four years and they have posted the position multiple times but have not had any luck in hiring. Mr. Harter stated that he is looking at "re-tooling" the position by getting rid of some requirements and adding others. Mr. Harter added that he hopes to start recruiting for the position in January or February 2024. I then asked what the duties would be for the CMOM coordinator. Mr. Harter explained that they would oversee the collection system duties such as cleaning, CCTV, SL-RAT, and so forth, and would also oversee planning. Mr. Harter stated that currently, planning is shared by management and that hiring a CMOM coordinator would take some strain off existing staff and improve productivity.

[5] Lake County's FOG Program can be found on their website at: https://www.lakecountyca.gov/1015/Fats-Oils-Grease-FOG

I then asked what the typical duties for the operation and maintenance crew are. Mr. Spooner explained that the crew does weekly checks at the pump stations, uses SL-RAT to determine cleanings, and makes water system repairs. Mr. Spooner added that the treatment plant operators have their own daily routines at the WWTP.

Training

I asked what type of training is done. Mr. Harter explained that they have training on SSOs, equipment, pump stations, and so forth. Mr. Harter stated that he wants to develop a formal standard operator procedure (SOP) for training. Mr. Spooner explained that their operators must obtain their Water Distribution and Treatment Grade II certificates within the first year of being hired and are provided ongoing training to increase their certification level or get continuing education units (CEUs) to recertify. Mr. Spooner added that the maintenance crew must obtain a Water Distribution Grade II certificate to assist with water system repairs.

I then asked about recurrent training versus training for new employees. Mr. Harter explained that when new staff are trained, existing staff can attend the training as a refresher. Mr. Spooner stated that they have training on forklift operations, traffic control, confined space entry, electronics training, and so forth. I then asked how Lake County does their SSO training. Mr. Hornung explained that they do field training for SSOs where they will release a "spill" and then train staff on measurements, containing the SSO, volume estimations, and so forth. Mr. Hornung added that they just updated their Spill Emergency Response Plan (SERP) which has guidelines for estimating spill volumes.

Budget, Capital Improvement Plan (CIP), & Capacity

I then moved onto the next topic and stated that based on my document review, funding had appeared to be an issue in the past. Mr. Harter stated that Lake County has a healthy budget and that there are no current budget issues. Mr. Harter explained that they have a CIP reserve for capital improvement projects. Mr. Harter stated that their rates go up annually to keep up with operating costs but last year's rates and reserves were so healthy that they decided not to implement the rate increase and the last rate increase was in January of 2022. Mr. Jesus Salmeron, Fiscal Deputy Administrator for Lake County, stated that their final budget for this year just wrapped up and they need to analyze the numbers and decide on whether to implement a rate increase for 2024.

I then asked about short- and long-term projects and how they are identified. Mr. Harter stated that they do not have a formal CIP but work with their field staff to identify where there are known or suspected problems. Mr. Harter explained that there is not a lot of new development in Lake County but that if there is a new development that exceeds 20 single family dwelling units, the developer must model the flows and identify potential impacts to the system.

I then asked if there are any current or upcoming projects. Mr. Harter stated that they are looking to do a force main bypass project in a low-lying area to relieve pressure. Mr. Harter also stated that they have slip lining coming up that is Integrated Regional Watershed Management (IRWM) funded. Mr. Harter explained that they secured $5 million from IRMW grant funding to address I/I. Mr. Harter stated that the system is old, but they have seen around a 40 percent reduction in I/I due to improvements they have made.

I then asked where I/I is still an issue within the system. Mr. Harter stated that the Meadowbrook area still has some problems, but they have done a lot of work there. Mr. Spooner stated that 12-13 years ago they re-piped some areas. Mr. Harter explained that they re-piped Pump Station No. 4 to be routed directly to the WWTP to take some burden off the system. Mr. Steve Phillips, Utility System

Compliance Coordinator for Lake County, stated that the prior superintendent would use SCADA and rain forecasts to be proactive about getting in the field and pumping out manholes during rain events.

Operation & Maintenance (O/M)

I then moved onto O/M and asked whether Lake County uses a CMMS. Mr. Harter stated that they had a license for City Works at one point but never fully implemented it. Mr. Harter explained that they have all the underlying GIS, they just need to issue a request for proposal (RFP) to get a system in place and fully develop the system. I then asked how work orders are generated. Mr. Harter explained that they use their cost accounting management system and historical knowledge of problem areas for service requests.

I then asked about Lake County's rehabilitation and replacement program. Mr. Harter stated that they try to get to things before they become an issue. Mr. Harter explained that they do small projects in-house, such as point repairs, but larger issues are contracted out. I then asked about routine inspections and cleanings. Mr. Spooner stated that they conduct maintenance on rotating basis and that the system is broken into sections. Mr. Spooner explained that they start by using SL-RAT and then do cleaning or CCTV if needed. I asked how long it takes to inspect the entire system. Mr. Spooner stated that they are currently on a three-year cycle but are hoping to reduce that. Mr. Phillips added that they are working with the City of Clearlake (City), since the City is doing a lot of road improvements. He said Lake County gets notified of the City's projects and Lake County will CCTV or SL-RAT prior to the City resurfacing the roads, in order to address any issues. Mr. Spooner stated that they currently have one section that is on a higher cleaning frequency because there is an offset which is letting debris in, but that the section is waiting to be repaired.

I then asked about Lake County's cleaning productivity and noted that according to the CIWQS Annual Report, only one mile of the system was cleaned but the Pre-Inspection Questionnaire stated that the goal was 40-50 miles a year. Mr. Hornung clarified that the 40-50-mile goal is of inspection using SL-RAT, while CCTV and cleaning is done as needed. Mr. Spooner added that around 10 percent of what they inspect they find to need cleaning. I then asked about how the SL-RAT has performed and how Lake County determines when to SL-RAT or to CCTV. Mr. Spooner stated that they initially use SL-RAT and then use CCTV to verify the results. Mr. Harter added that the initial ground-truthing of the SL-RAT worked very well and that the SL-RAT data integrates into their GIS system.

I then asked about the system-wide CCTV in 2019 and asked why none of the video footage was reviewed and ranked. Mr. Harter explained that the system-wide inspection in 2019 was all CCTV since it was prior to Lake County using SL-RAT. Mr. Harter stated that the CCTV was only reviewed during the actual inspections and the operator noted what was seen when performing the CCTV, it was not reviewed a second time. I then asked if Lake County has a ranking system for defects. Mr. Hornung stated that the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification Program (PACP) ratings are built into their pipeline observation system management (POSM) software. Mr. Spooner stated that a lot of their I/I efforts stemmed from the system-wide 2019 CCTV.

I then asked about Lake County's use of smoke testing for I/I and how Lake County targets locations. Mr. Spooner explained that they have issues with residents wanting to connect gutters to the collection system so every three years they will go out and smoke test to verify cleanouts have caps on them and the gutters are not connected to the collection system. Mr. Spooner stated that if they detect I/I as an issue they will get the issue scheduled for repairs. Mr. Spooner added that they have two point-repairs coming up for an offset and a broken section that were identified with CCTV. Mr.

Harter added that the offset location is inaccessible since there is a pier where the pipe is, so they are contracting the repair out.

I then asked about the three hot spot locations noted in the Pre-Inspection Questionnaire. Mr. Harter stated that one of the hot spots is the offset currently being contracted out for repair. Another is the Meadowbrook area, due to capacity issues. The third used to be an issue on Uhl Avenue, but is no longer an issue. Mr. Spooner stated that for the Meadowbrook area, they usually go out prior to the wet weather season to ensure that area is cleaned.

I then asked Lake County to elaborate on their pump station and force main risk assessments as the Pre-Inspection Questionnaire stated that Lake County did not have any formal assessments. Mr. Harter explained that the assessments are just based on staff being out in the field weekly and staying aware of what issues are developing. I then asked about any SOPs that are used for O/M. Mr. Spooner stated that they do not have SOPs and O/M is more "word of mouth and from experience." Mr. Spooner added that they are looking to develop SOPs for regular activities, such as cleanings and manhole inspections, and will be doing so this year.

I then asked about the pump stations and why one of the pump stations did not have an autodialing or SCADA system. Mr. Spooner stated that Pump Station No. 20 is a small station developed inside a manhole and only services one street. Mr. Spooner explained that the pump station is still on their weekly checks and that they replaced the pump about two and a half weeks ago. Mr. Spooner added that they do not see any issues at the pump station and because of its location they cannot develop it any more than it is. I then asked about the ARVs and why there currently is no plan to exercise and clean the ARVs. Mr. Spooner stated that he is developing a program to maintain the ARVs. I then asked about the aerial and underground crossings. Mr. Spooner stated that there is only one aerial crossing, and the rest are underground. Mr. Spooner added that they inspected the aerial crossing last year. I then asked if there have been any issues with the aerial and underground crossings. Mr. Spooner stated that there was a force main break under a creek around 20 years ago, but they have not had any issues with the aerial crossing.

I then asked about the 59 complaints they received in the previous FY, as stated in the Pre-Inspection Questionnaire. Mr. Harter stated that a lot of their complaints are driven by laterals. He confirmed that Lake County is responsible for the lower laterals if there is a lower lateral cleanout. Mr. Harter explained that they have a lateral replacement program where property owners can obtain funding for inspections and replacements if there are issues. Mr. Harter stated that the program is listed on their website but that no one takes advantage of the program.

Fats, Oils, & Grease (FOG) Program

I then asked for a general overview of the FOG program. Mr. Harter stated that the CMOM coordinator would normally handle the program but since the position is vacant, they have had to distribute the duties. Mr. Phillips explained that new FSEs need approval for a grease trap and Lake County will help determine the sizing of the grease trap. Mr. Phillips added that FSE inspections consist of inspecting the sinks, venting, and the grease traps. Mr. Phillips stated that once they hire the CMOC coordinator, they will get back into an aggressive inspection program. Mr. Phillips explained that they did some inspections in Kelseyville last year since they were having issues with FOG but have not looked at other areas since they do not have the staff. Mr. Phillips stated that they require FSEs to submit pump out and inspection records and encourage the FSEs to follow the 25 percent rule.

Mr. Harter stated that they work closely with the County Environmental Health Department and coordinate with them on changes in ownership and businesses. Mr. Harter explained that their Board

adopted a micro-home kitchen ordinance a few years ago that allows small food services out of homes. Mr. Harter added that the small food services must be licensed and coordinate with Lake County to ensure they have appropriately sized grease traps. Mr. Harter explained that it is difficult to get vendors to pump out the grease traps, but Lake County works with the businesses and helps them find vendors.

I then asked who currently does the FSE inspections. Mr. Phillips stated that the technicians do the FSE inspections and use a Sludge Judge to measure the solids content in the grease traps. Mr. Phillips explained that the technicians bring the inspection report to him, and he would write a Notice of Compliance or Notice of Correction and then follow up to ensure the issues are addressed. Mr. Harter added that once they hire the CMOM coordinator, their goal is to inspect all FSEs annually. I then asked what further action can be taken if an FSE fails to address issues following a Notice of Correction. Mr. Harter stated that in theory they could disconnect the FSE from their system, but it has never come to that point and the Notice of Correction is usually sufficient.

Ms. Jamie Johnson then asked if flushable wipes are an issue. Mr. Harter explained that flushable wipes are an issue, and they have a couple pump stations that rag up a lot, so they must pull the pumps out, clear them, and then reinstall the pumps. Mr. Harter stated that they have a pilot project with a direct in-line pumping system that is replacing Pump Station No. 6, eliminating the need for a wet well. Mr. Harter explained that the system will have a lower retention time, reduced odors, and reduced hydrogen sulfide issues. Mr. Harter added that if the pilot project goes well, they will look to implement the system at the other pump stations.

Sanitary Sewer Overflows (SSOs)

I then moved onto discussing SSOs and asked about the 600,000-gallon SSO that occurred in March of 2023. Mr. Harter stated that a coupler between two pipes at Pump Station No. 1 was dislodged and staff had noticed water at the pump station. Mr. Harter explained that they had dug into the ground and identified the leak and ordered the replacement part prior to the large SSO occurring, but that the part did not arrive in time to prevent the 600,000-gallon SSO. I then asked about the 200,000-gallon spill that occurred in March of 2023. Mr. Harter explained that there was an illegal dumping in a mobile home park where locals had popped open the manholes and dumped large amounts of debris into the manhole. Mr. Harter stated that he is in the process of writing a Notice of Violation to the mobile home park.

I then asked about Lake County's root control program as a lot of the SSOs seem to be caused by roots. Mr. Harter stated that they use mechanical tools such as hydro jetters, flails, nozzles, and so forth for root control. Mr. Spooner explained that if roots are found in a mainline, then they will go in and remove the roots and make repairs to the pipe. Mr. Spooner added that if the roots are found in the laterals, they will still perform mechanical rodding. I then asked how Lake County targets locations for root control. Mr. Spooner stated that when roots are found to be an issue, they will remove the roots and put the section of pipe on a 30-day to one-year cycle depending on the root growth.

I then asked about the SSOs caused by natural disasters in 2019. Mr. Spooner stated that the SSOs were caused by the fires in 2019. Mr. Spooner explained that many homes were destroyed during the fires and that the loss of homes created open holes in the collection system causing rain to infiltrate into the system. Mr. Harter added that they are now proactive during fires and will go out and cap the laterals. I then mentioned that the No Spill Reports were not certified for July and August of 2023. Mr. Phillips stated that they have had a couple of Category 4 SSOs and acknowledged that he is behind on the reporting requirements. I reminded Lake County that the SSS WDRs require the No Spill Reports and Category 4 Spills to be certified within 30 calendar days. I then noted that one of the

SSOs from March of 2023 is still in its draft form and has not been certified yet and reminded Lake County of the reporting requirements to certify the SSO within 15 calendar days and make any amendments within 90 calendar days.

I then went over what assets the inspection team would like to look at and ended the pre-field inspection conference at approximately 1025.

FIELD INSPECTION

Location 1: Pump Station No. 1

The first location we traveled to was Pump Station No. 1, located on Burns Valley Road near Turner Avenue, where we arrived at approximately 1059. We were joined by one of the field crew members, Paul Higdon. I observed emergency signage on the fence surrounding the pump station **(Photo 1)**. Mr. Phillips explained that this pump station was the location of the failed coupler on the 16-inch pipe that caused the 600,000-gallon SSO in March of 2023. Mr. Harter stated that they were able to redirect the flows through the 8- and 10-inch pipes, in addition to using pumper trucks, to handle the flows during the SSO.

The wet well on the south side of the pump station had a minor FOG mat, minimal corrosion, a coated barrel, and some rags on the components **(Photo 2)**. The wet well on the north side of the pump station had minimal FOG and a lot of rags on the components **(Photo 3)**. Both dry wells were not covered, had minimal debris, and some chipping on the painted components **(Photos 4 & 5)**. A logbook was kept on site and showed that a monthly load test and maintenance was done the day prior on November 7, 2023 **(Photo 6)**.

I then asked if the alarms could be tripped. Mr. Higdon tripped an alarm, and an audible alarm was heard. I asked if there were any visible alarms and Mr. Spooner stated that there were no visible alarms at any of the pump stations. Mr. Spooner explained that a third-party company gets the alarm and will then call and inform the standby operator that an alarm was triggered. Mr. Spooner received the call that an alarm was triggered at the pump station. I then asked what is typically done during the weekly checks. Mr. Higdon stated that they trigger alarms, check the batteries, regulators, oil, coolant and so forth, weekly, and put the pump station under a load test once a month. I then asked about the onsite generator. Mr. Spooner stated that all the big pump stations have a backup generator, but they also have portable generators that they can use at the other pump stations. The generator's fuel level was just over half full at the time of the inspection **(Photo 7)**. I asked how often the fuel gets filled. Mr. Spooner stated that they refill the fuel as needed but will fill the tank before the wet weather season. Mr. Higdon explained that under normal circumstances, the generators can last three to four days and during high flow they can last one to two days. Mr. Higdon added that they typically schedule fuel deliveries when the fuel level gets to half full.

I then asked about odor control. Mr. Harter stated that there is an elderly home and apartments nearby, so they sometimes receive odor complaints. Mr. Spooner explained that they use a carbon filter for odor control and are looking to upgrade the system **(Photo 8)**. Mr. Spooner added that they use carbon filters for odor control at all their big pump stations.

Photo 1: A photo of emergency signage posted at Pump Station No. 1.

Photo 2: A photo of the wet well on the south side of Pump Station No. 1 with minor FOG, rags, and corrosion.

Photo 3: A photo of the wet well on the north side of Pump Station No. 1 with rags, minor FOG, and minor corrosion.

Photo 4: A photo of the one of the uncovered dry wells with minimal debris and paint chippings.

Photo 5: A photo of the one of the uncovered dry wells with minimal debris and paint chippings.

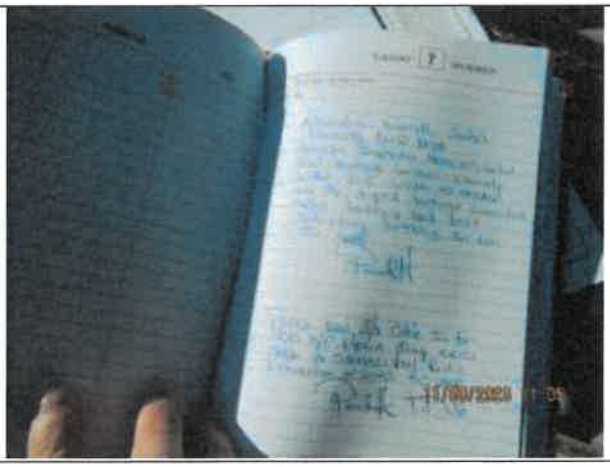


Photo 6: A photo of the logbook at Pump Station No. 1 showing maintenance and a monthly load test was done on November 7, 2023.

	
Photo 7: A photo of the fuel level of the generator at Pump Station No. 1 showing over 50 percent full.	Photo 8: A photo of the carbon filter system at Pump Station No. 1 for odor control.

Location 2: Pump Station No. 2

We then traveled to Pump Station No. 2, located at the intersection of Lakeshore Drive and Division Avenue, where we arrived at approximately 1131. Emergency signage was not on the fence surrounding the pump station but was located on the building inside the fence **(Photo 9)**. I asked why the sign was not on the outside of the fence and Mr. Spooner stated that the sign was previously on the outside of the fence but that it had been stolen, so they put the sign on the inside to prevent further vandalism. Mr. Harter added that residents will typically call the sheriff's office if they see issues, and the sheriff's office will then call Lake County.

The dry well on the south side of the pump station was uncovered, contained debris, and was missing a cap on one of the connections **(Photo 10)**. The dry well on the north side was uncovered and had debris and minor trash in it **(Photo 11)**. Mr. Spooner stated that they need to order a new cap and would think about installing a mesh covering over the dry wells to prevent debris and trash from getting in.

The wet well on the south side of the pump station had a disconnected pipe, staining on the walls, and minor FOG and debris **(Photo 12)**. Mr. Higdon stated that the disconnect is currently being repaired and they had just replaced the coupler on the other pipe as seen in the photo. The wet well on the north side of the pump station had minor corrosion, debris, and staining on the walls **(Photo 13)**. The logbook for the pump station showed that staff was there two days prior, on November 6, 2023, and Lake County is currently getting quotes for a variable frequency drive (VFD) control board to repair the interface screen **(Photo 14)**. A check sheet for pump station maintenance was filled out on November 6, 2023 **(Photo 15)**.

I then asked if an alarm could be triggered. Mr. Higdon triggered an alarm, and an audible alarm was heard. Mr. Spooner explained that the alarm-answering, third-party company is staffed 24/7 and has a list of people to call. Mr. Spooner received the call that an alarm was triggered approximately five minutes after the alarm. Mr. Spooner stated that they typically receive the alarm call within five to ten minutes but that it previously had been up to two hours. Mr. Spooner added that they are looking into a better backup alarm system that will call Lake County directly. I checked the generators fuel level which showed the fuel level to be a little over half full **(Photo 16)**.

At approximately 1150, we broke for lunch.

Photo 9: A photo of emergency signage located on the building inside the fence of Pump Station No. 2.

Photo 10: A photo of the uncovered south dry well at Pump Station No. 2 showing debris and a missing cap on one of the connections.

Photo 11: A photo of the uncovered north dry well at Pump Station No. 2 showing debris and minor trash.

Photo 12: A photo of the south wet well at Pump Station No. 2 showing minor debris, FOG, and staining on the walls. The disconnected pipe in the photo is currently under repairs.

Photo 13: A photo of the north wet well at Pump Station No. 2 showing minor debris, trash, and staining on the walls.

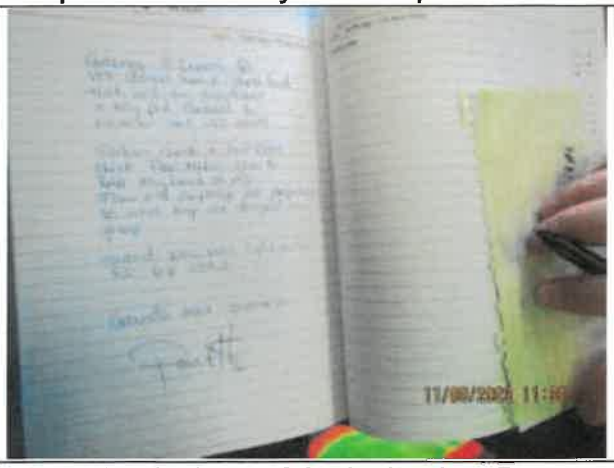


Photo 14: A photo of the logbook at Pump Station No. 2.

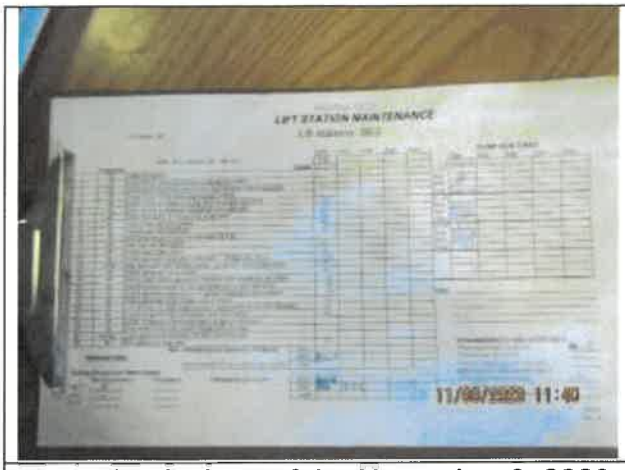


Photo 15: A photo of the November 6, 2023 maintenance check sheet at Pump Station No. 2.

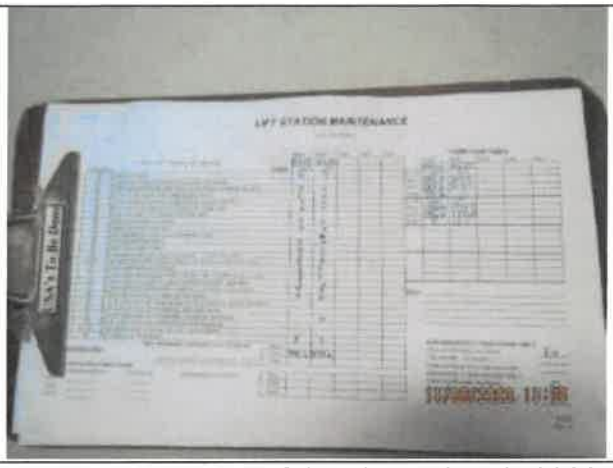
Photo 16: A photo of the fuel level of the generator at Pump Station No. 2 showing the fuel level to be over half full.

Location 3: Pump Station No. 3

After lunch, the inspection team traveled to Pump Station No. 3, located near the end of Wayland Avenue, where we arrived at approximately 1258. We were joined by field crew members Vince Myrick and Donald Beets. The wet well had a FOG mat, rags on the pipes, corrosion, and staining on the walls **(Photo 17)**. There was a storm drain with a grate over the drain that ran directly through the pump station. Mr. Harter stated that the storm drain is owned by the City. I asked if there is odor control at the pump station and Mr. Spooner stated that carbon is used **(Photo 18)**. The pumps and piping were located above ground and appeared to be freshly painted **(Photo 19)**. The logbook and maintenance check sheet were on site and showed that staff had been there two days prior on November 6, 2023 **(Photo 20)**. The onsite generator's fuel level was at approximately 75 percent full. Mr. Myrick stated that they run the generator under full load for one hour once a month.

Photo 17: A photo of the wet well at Pump Station No. 3 showing a FOG mat, rags on the pipes, corrosion, and staining on the walls.

Photo 18: A photo of the carbon odor control system at Pump Station No. 3.

	
Photo 19: A photo of the recently painted aboveground pumps and piping system at Pump Station No. 3.	Photo 20: A photo of the November 6, 2023, maintenance check sheet at Pump Station No. 3.

Location 4: "Hot Spot" Location at the Intersection of Bay Street and Lakeview Way

We then traveled to one of the hot spot locations, located at the intersection of Bay Street and Lakeview Way, where we arrived at approximately 1312. The manhole had a manhole barrier lid, to protect from I/I, and had fast flow through the manhole channel **(Photo 21)**. The manhole rim had corrosion around the rim and staining in the barrel **(Photo 22)**. Mr. Spooner stated that this location was cleaned approximately one and a half weeks ago, and they clean the area prior to a storm event.

	
Photo 21: A photo on the manhole located at the intersection of Bay Street and Lakeview Way with fast flow.	Photo 22: A photo on the manhole located at the intersection of Bay Street and Lakeview Way with corrosion around the rim and staining in the barrel.

Location 5: Manhole in Front of 6825 Meadowbrook Drive

We then traveled to a manhole in the Meadowbrook area, located in front of 6825 Meadowbrook Drive, where we arrived at approximately 1319. The manhole had corrosion around the rim **(Photo 23)**, low flow, and FOG on the sides of the channel **(Photo 24)**. I asked about the inspections versus cleanings and Mr. Spooner stated that they aim to inspect 30 percent of the system annually and typically 10 percent of what is inspected will need cleaning or repairs. Ms. Johnson asked if the

manholes are labeled, and Mr. Spooner stated that they have the manhole numbers on the master map. Mr. Harter added that they are looking into acquiring tablets for mobile GIS while out in the field.

Photo 23: A photo on the manhole located in front of 6825 Meadowbrook Drive with corrosion around the rim.

Photo 24: A photo on the manhole located in front of 6825 Meadowbrook Drive low flow and FOG on the sides of the manhole channel.

Location 6: Manhole in Front of 6925 Meadowbrook Drive

We then traveled to another manhole in the Meadowbrook area, located in front of 6925 Meadowbrook Drive, where we arrived at approximately 1328. The manhole had a manhole barrier lid and cracks in the concrete around the manhole **(Photo 25)**. The manhole had a vertical crack in the barrel, no flow, and standing water in the channel **(Photo 26)**.

Photo 25: A photo on the manhole located in front of 6925 Meadowbrook Drive with a manhole barrier lid and cracking in the concrete around the manhole.

Photo 26: A photo on the manhole located in front of 6925 Meadowbrook Drive with a vertical crack in the manhole barrier and no flow in the channel.

Location 7: Manhole in Canal on Stonybrook Drive

We then traveled to the manhole in the canal on Stonybrook Drive and arrived at approximately 1335. The canal was dry the day of the inspection and the manhole was elevated above the top of the canal **(Photo 27)**. Mr. Spooner stated that all the manholes in canals and creeks are above the banks so that flood water does not enter the manholes.

Photo 27: A photo of the manhole in the canal on Stonybrook Drive.

Location 8: Pump Station No. 6

We then traveled to Pump Station No. 6, located at the east end of Lower Lakeshore Drive, and arrived at approximately 1348. The pump station was under construction as the direct in-line pumping system was currently being put into place **(Photo 28)**. A portable bypass system was set up while construction was occurring **(Photo 29)**. One of the Hudson Mechanical Inc. crew members installing the system stated that the system should be up and running next week. Mr. Spooner stated that the system would be fully sealed and contained and Mr. Harter explained that they are also setting up the system with a bypass on the inlet and outlet side so they can bypass the system if needed. Mr. Harter added that they would be doing the pilot project for six months to one year and if all goes well, they will look at implementing the direct in-line pumping systems at their other pump stations.

Photo 28: A photo of the direct in-line pumping system being put into place at Pump Station No. 6.

Photo 29: A photo of the portable bypass system being used while Pump Station No. 6 is under construction.

Location 9: Aerial Crossing at Intersection of Rumsey Road and Pamela Lane

We then traveled to the aerial crossing over Burns Valley Creek, located at the intersection of Rumsey Road and Pamela Lane, and arrived at approximately 1406 **(Photo 30)**. Mr. Harter stated that the aerial crossing is a force main and does not have any secondary encasement. The lock on the ARV was broken and was replaced by Mr. Spooner at the time of the inspection. Mr. Spooner

opened the encasement around the ARV and the ARV had a lot of cobwebs around it **(Photo 31)**. There was no emergency signage for the aerial crossing or the ARV.

Photo 30: A photo of the force main aerial crossing located at the intersection of Rusmey Road and Pamela Lane with no secondary encasement.

Photo 31: A photo of the ARV located at the aerial crossing with cobwebs around the ARV.

Location 10: Utility Yard

We then traveled to the last location, the utility yard, located at the Southeast WWTP, where we arrived at approximately 1419. Mr. Spooner showed us where they keep spare parts, including manhole barrier lids, couplers, pipes, and so forth, portable generators, bypass equipment, and SSO equipment, including waddles and absorption pads **(Photos 32-35)**.

The inspection ended at approximately 1433.

Photo 32: A photo of spare parts at the utility yard.

Photo 33: A photo of the portable generators at the utility yard.

	
Photo 34: A photo of spare manhole barrier lids at the utility yard.	Photo 35: A photo of waddles for SSO response at the utility yard.

FINDINGS

The review of all requested documents as well as the inspection itself resulted in the following areas of concern:

- Lake County does not currently use a CMMS and relies on historical knowledge of problem areas.
- Lake County does not currently have a method in place to inspect and maintain ARVs.
- Lake County only reviews CCTV footage during the CCTV inspections and does not re-review or rank issues.
- Lake County has had difficulties obtaining a CMOM coordinator which has strained resources, especially when implementing the FOG program.
- Lake County does not have a formal CIP.
- Lake County does not have formal SOPs for training and O/M.
- Lake County does not have emergency signage for aerial crossings or ARVs.
- Lake County has failed to submit and certify some No Spill Reports, Category 4 Spill Reports, and SSO reports.
- Alarm notification from the third-party company has taken up to two hours.

CALIFORNIA Water Boards

GAVIN NEWSOM
GOVERNOR

YANA GARCIA
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

NOTICE OF VIOLATION

May 1, 2024

Scott Harter, Deputy Special Districts Administrator
Lake County Special Districts Administration
230 North Main Street
Lakeport, CA 95453
scott.harter@lakecountyca.gov

CERTIFIED MAIL:
9589 0710 5270 0591 2580 92

NOTICE OF VIOLATION OF WATER QUALITY ORDER NO. 2022-0103-DWQ, LAKE COUNTY SOUTHEAST REGIONAL WASTE DISPOSAL FACILITY COLLECTION SYSTEM, WDID 5SSO11055

Violation(s)	Description	Law/Code/Order
1	Based on review of CIWQS data reported by the Enrollee between 2007 and 2023, the Enrollee reported that 1,057,089 gallons of untreated sewage reached surface waters (see Exhibit 1 below).[1]	Clean Water Act § 301. Prohibition 4.2 of the SSS WDRs.
2	The Enrollee does not have a formal capital improvement plan (CIP).	Attachment D, Section 8 – System Evaluation, Capacity Assurance and Capital Improvements, of the SSS WDRs.
3	The Enrollee failed to submit and certify No Spill Reports, Category 4 Spill Reports, and SSO Reports within the required timeline.	Attachment E, Section 3 – Reporting Requirements, of the SSS WDRs.
Area(s) of Concern	**Description**	
1	The Enrollee does not have emergency signage for aerial crossings or ARVs.	
2	There has been a significant delay in alarm notification from the Enrollee's third-party alarm company.	

[1] This Notice of Violation (NOV) supersedes all other NOVs issued prior regarding spills.

3	The Enrollee has had difficulties obtaining a capacity management operation and maintenance (CMOM) coordinator.
4	The Enrollee does not have formalized standard operating procedures (SOPs) for training and operation and maintenance.
5	The Enrollee does not re-review CCTV footage after the initial inspection.
6	The Enrollee does not have a method in place to inspect and maintain air relief valves (ARVs).
7	The Enrollee does not use a computerized maintenance management system (CMMS) and relies on historical knowledge of problem areas.
Required Response	Submit a report to the Central Valley Regional Water Quality Control Board (Central Valley Water Board) detailing the corrective actions being taken to bring the collection system into compliance with the State Water Resources Control Board (State Water Board) Order WQ 2022-0103-DWQ, Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems (SSS WDRs)[2]. This report should address the violations and areas of concern listed in this table. The report must be submitted as a pdf via email to Mr. Howard Hold, Howard.Hold@waterboards.ca.gov, and Mr. German Myers, German.Myers@waterboards.ca.gov.
Due Date	03 JUNE 2024

I. Background

The Lake County Southeast Regional Waste Disposal Facility's (Enrollee) sanitary sewer collection system (hereafter, collection system) is owned and operated by Lake County. The collection system is regulated by the SSS WDRs, which was adopted December 6, 2022, with an effective date of June 5, 2023.

The SSS WDRs contain waste discharge requirements and a monitoring and reporting program for the operation of the Enrollee's collection system referenced above. Wastewater conveyed by the collection system is sewage and is susceptible to high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease, and other pollutants, and which are defined as wastes under the Porter-Cologne Water Quality Act. If sewage is discharged

[2] To access the SSS WDRs go to the following link: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0103-dwq.pdf

from any portion of the collection system it may threaten public health, beneficial uses of waters of the state, and the environment.

On November 8, 2023, the State Water Board and Central Valley Water Board conducted an inspection of the collection system to evaluate compliance with the SSS WDRs. The inspection report (see Exhibit 2) is attached for your reference.

II. Legal Requirements

Lake County is hereby notified that it has violated and has deficiencies with the SSS WDRs, as listed in the table above. By violating the SSS WDRs, Lake County has violated California Water Code (Water Code) sections 13267, 13350, 1338, and/or 13385. Additionally, failing to implement the requirements of the SSS WDRs maya increase the threat of discharges to waters of the state from the collection system.

III. Evidence/Violations

Violation 1.

Review of CIWQS data reported by the Enrollee between 2007 and 2023 revealed that the Enrollee reported that 1,057,089 gallons of untreated sewage reached surface waters. Prohibition 4.1 of the SSS WDRs states that any discharge from a sanitary sewer system that has the potential to discharge to surface waters of the State is prohibited unless promptly cleaned up and reported. Prohibition 4.2 of the SSS WDRs states that any discharge from a sanitary sewer system that is discharged directly or indirectly to waters of the State is prohibited.

Violation 2.

The inspection revealed that the Enrollee does not have a formal capital improvement plan. Attachment D, Section 8 of the SSS WDRs sates that the Enrollee must a develop a plan that includes a capital improvement plan that must include project schedules including completion dates for all portions of the capital improvement program, internal and external project funding sources for each project, and joint coordination between operation and maintenance staff, and engineering staff/consultants during planning, design, and construction of capital improvement projects, and interagency coordination with other impacted utility agencies.

Violation 3.

Review of spill reporting by the Enrollee revealed that a Category 2 and Category 3 spill have not been certified and No Spill Reports/Category 4 Spill Reports were not certified by the required time. Attachment E, Section 3 of the SSS WDRs require that Category 2 spills be certified within 15 days of the spill end date, Category 3 and 4 spills be reported and certified within 30 days after the end of the month in which the spills occur, and No Spill Reports be certified within 30 days after the end of the month in which no spills occurred.

IV. Corrective Action to Reestablish Compliance

1. Immediately implement corrective and preventative actions to bring the collection system into compliance with the SSS WDRs.

2. Submit by **June 03, 2024,** a report to the Central Valley Water Board detailing the corrective actions being taken to bring the collection system into compliance with the SSS WDRs. This report should address the violations listed in Exhibit 1 attached to this notice. The report must be submitted as a pdf via email to Mr. Howard Hold, Howard.Hold@waterboards.ca.gov , and Mr. German Myers, German.Myers@waterboards.ca.gov.

This Notice of Violation neither extends nor excuses compliance with the deadline(s) originally imposed in the SSS WDRs. However, the Board's Prosecution Team may elect not to pursue additional enforcement of the violations described in this Notice if Lake County submits evidence in accordance with the Corrective Action(s) to Reestablish Compliance due dates above.

V. Potential Liability/Fines

Pursuant to Water Code section 13350, subdivision (e), Lake County is subject to administrative civil liability of up to $5,000 for each day in which an SSR WDRs violation occurs or $10 for each gallon of waste discharged as a result of spills. Pursuant to Water Code section 13385, Lake County is subject to administrative civil liability of up to $10 multiplied by the number of gallons of spilled sewage by which the volume spilled but not cleaned up exceeds 1,000 gallons. Failure to meet monitoring and reporting requirements is a violation of Water Code sections 13267 and/or 13383. Pursuant to Water Code section 13268, any person failing or refusing to furnish technical or monitoring program reports required under Water Code section 13267, or falsifying any information provided therein, is guilty of a misdemeanor and subject to an administrative civil liability of up to $1,000 for each day the report is late. Pursuant to Water Code section 13385, the any person in violation of a Water Code section 13383 requirement is subject to administrative civil liability of up to $10,000 for each day in which the violation occurs. The Central Valley Water Board may also refer violations to the Attorney General for judicial civil enforcement. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

VI. DOCUMENT SUBMITTAL/CONTACT INFORMATION

Requested documentation must be submitted to Howard.Hold@waterboards.ca.gov and German.Myers@waterboards.ca.gov.

Should you have any questions regarding this matter, or the contents of the attached inspection report, please contact Howard Hold at (916) 464-4679 or Howard.Hold@waterboards.ca.gov.

Digitally signed by John J. Baum
Date: 2024.05.01 14:46:14 -07'00'

John J. Baum
Assistant Executive Officer

Enclosures:
cc electronically
w/ enclosures:

Exhibit 1 – Reported Category 1 Spills
Exhibit 2 – Lake County Southeast Regional Waste Disposal Facility Collection System Inspection Report

cc: (via electronic mail)

Scott Hornung, Lake County
Scott.hornung@lakecountyca.gov

Tomas Eggers, State Water Resource Control Board, Office of Enforcement
Tomas.Eggers@waterboards.ca.gov

Jamie Johnson, State Water Resources Control Board, Office of Enforcement
Jamie.Johnson@waterboards.ca.gov

German Myers, State Water Resources Control Board, Office of Enforcement
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Justin Shen, State Water Resources Control Board, Office of Enforcement
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Kari Holmes, Central Valley Regional Water Quality Control Board
Kari.Holmes@waterboards.ca.gov

Howard Hold, Central Valley Regional Water Quality Control Board
Howard.Hold@waterboards.ca.gov

Kenny Croyle, Central Valley Regional Water Quality Control Board
Kenny.Croyle@waterboards.ca.gov

Guy Childs, Central Valley Regional Water Quality Control Board
Guy.Childs@waterboards.ca.gov

Xuan Luo, Central Valley Regional Water Quality Control Board
Xuan.Luo@waterboards.ca.gov

Exhibit 1

Reported Category 1 Spills

Table 3: List of Spills Reaching Surface Water					
Event ID	**Certification Step**	**Category**	**Spill Volume**	**Spill Volume Reaching Surface Water**	**Spill Start**
657842	Certified	Category 1	240	240	2007-09-21
705311	Certified	Category 1	30	25	2007-10-15
710725	Certified	Category 1	7,650	7,650	2008-01-04
710730[3]	Certified	Category 1	800	800	2008-01-04
711868[3]	Certified	Category 1	8,850	8,850	2008-01-25
711866[3]	Certified	Category 1	9,000	9,000	2008-01-25
716938	Certified	Category 1	3,450	50	2008-05-03
730621	Certified	Category 1	231	231	2008-12-16
737900	Certified	Category 1	300	300	2009-05-24
746762	Certified	Category 1	30	10	2009-11-14
748416	Certified	Category 1	4,110	4,110	2010-01-19
748485	Certified	Category 1	270	270	2010-01-20
748461	Certified	Category 1	15,300	15,300	2010-01-20
748804	Certified	Category 1	2,280	2,280	2010-01-25
764508	Certified	Category 1	3,000	3,000	2011-03-20
764763	Certified	Category 1	1,365	1,365	2011-03-24
764756	Certified	Category 1	9,000	9,000	2011-03-24
766961	Certified	Category 1	1,250	125	2011-05-29
768663	Certified	Category 1	40	4	2011-07-19
772461	Certified	Category 1	200	10	2011-10-27
778381	Certified	Category 1	125	19	2012-03-05
794558	Certified	Category 1	45	45	2013-05-29
811175	Certified	Category 1	420	420	2014-12-02
811383	Certified	Category 1	31,000	31,000	2014-12-11
831500	Certified	Category 1	46,950	46,950	2017-01-08
832070	Certified	Category 1	180	180	2017-01-25
832905	Certified	Category 1	4,200	1,200	2017-02-18
850777	Submit Draft	Category 1	1,500	1,500	2018-09-03
856098	Certified	Category 1	10,125	10,125	2019-02-13
856106	Certified	Category 1	192,950	192,950	2019-02-13
856627	Certified	Category 1	85,500	85,500	2019-02-26
856626	Certified	Category 1	15,000	15,000	2019-02-26

[3] These reported SSOs were part of Administrative Civil Liability Complaint No. R5-2008-0515, issued to Lake County on March 20, 2008.

856657	Certified	Category 1	2,430	2,430	2019-03-01
856819	Certified	Category 1	5,080	5,080	2019-03-06
885305	Certified	Category 1	280	280	2023-01-08
885319	Certified	Category 1	1,400	1,400	2023-01-09
885320	Certified	Category 1	350	350	2023-01-09
887069	Certified	Category 1	40	40	2023-03-14
887225	Certified	Category 1	600,000	600,000	2023-03-21
Total Spill Volume Reaching Surface Water				**1,057,089 gallons**	

Exhibit 2

Lake County Southeast Regional Waste Disposal Facility Collection System Report

COUNTY OF LAKE
SPECIAL DISTRICTS ADMINISTRATION
230 N Main Street
Lakeport, California 95453
Telephone 707/263-0119
Fax 707/263/3836

Scott Harter
Special Districts Administrator

October 23, 2023

Mr. German Myers
State Water Resources Control Board
Office of Enforcement
801 K Street, Ste. 2300
Sacramento, CA 95814
Via email: german.myers@waterboards.ca.gov

Notice of Inspection – Lake County Southeast Regional Waste Disposal Facility Collection system, WDID 5SSO11055, Order 2022-1030-DWQ – Pre Inspection Questionnaire

PART 1 - DESCRIPTION

This Sewer Collection System Pre-Inspection Questionnaire (Questionnaire) includes questions specific to the requirements in the Sanitary Sewer System Waste Discharge Requirements Water Quality Order No. 2022-0103-DWQ (hereafter SSS WDRs).

All the questions in this Questionnaire must be answered by the Enrollee, per Provision 6.4.2 of the SSS WDRs, to demonstrate how the agency is complying with the SSS WDRs.

PART 2 - INSTRUCTIONS

1. Complete all questions **in** the Questionnaire.

2. Have the Legally Responsible Official (LRO) sign the last page of this Questionnaire.

3. Electronically submit the Questionnaire by the deadline and to the contacts outlined in the Notice of Inspection.

PART 3 – REQUIRED INFORMATION

1. DOCUMENTATION
Please ensure that all required documentation is uploaded to the California Integrated Water Quality System (CIWQS) database as required by the SSS WDRs. These documents include the most up to date Sewer System Management Plan (SSMP), SSMP audits, updated annual report, sanitary sewer overflow (SSO) reporting information, and so forth.

2. NARRATIVE
2.1 Please provide a narrative description of efforts taken to reduce sanitary sewer overflows (SSOs). **The District has performed the following tasks to help reduce the number and severity of SSOs. Installed 210 manhole lid barriers to date, to help reduce I&I thru the manhole lid. The plan is to**

install between 500-700 barriers with the option to install them throughout the system.

SE staff inspect approximately 50 miles of sewer line each year with a Sewer Line Rapid Assessment Tool or SL Rat. This device, by InfoSense, Inc. uses acoustic technology to provide real time blockage assessment in gravity sewer lines. This allows field staff to allocate cleaning and inspection resources where they are needed, while not wasting time with sections that are already clean or in good condition.

The District recently purchased a new CCTV van and cameras for collection system inspection and rating. The camera van includes a laptop and the Pipeline Observation System Management (POSM) software to provide a Level of Service ranking of sewer lines that has been inspected. This further allows field staff to identify problem areas and prioritize cleaning and repair schedules.

The District performs smoke testing of the collection system to identify I&I. The District tries to perform smoke testing on a regular basis. Approximately 10 miles of collection system are tested a year, time permitting.

The District owns a manhole sealing / lining trailer which allows staff to seal aging manhole infrastructure to prevent I&I and extend the useful life.

The District inspects each lift station at least once each week, with cleaning performed at least once a year.

2.2 Please provide a narrative description of your rehabilitation and replacement plan identifying and prioritizing system deficiencies, and short- and long-term actions addressing deficiencies. **Scheduling of repairs and/or rehabilitation is based on the severity of the defect and the critical nature of the component. Emergencies involving mechanical (i.e. pumps, motors, generators, etc.) or electronics (i.e. controls, switches, etc.) are typically scheduled for repairs upon discovery and in many instances are performed by Utility Area staff. Infrastructure (manholes, pipes, etc.) typically degrade over time and rehabilitation work such as point repairs, small sections of line replacement, and manhole lining are typically performed in house with District staff. Larger repairs / replacements, gel grouting, spin grouting, slip lining, and cured-in-place (CIPP) point repairs are scheduled when a number of defects are found and a contractor specializing in that type of rehabilitation is scheduled to perform the work.**

2.3 In response to question 2.2, please provide all sewer system rehabilitation and replacement records for the past three 3 years. **We're working to compile these records and extract the details from employee daily reports. Once compiled they will be scanned and submitted.**

3. SEWER SYSTEM ASSETS

General System Information

3.1 Collection System Waste Discharge ID number (WDID) and Collection System Name: **5SSO11055, Southeast Waste Disposal Facility Collection System**

3.2 Collection System Main Point(s) of Contact (name, title, address, email, and telephone number): **Scott Harter, Administrator, scott.harter@lakecountyca.gov, 707-263-0119.**

3.3 What is the approximate size of the service area served by the sewer collection system for your agency, in square miles? **6.5 Square Miles**

3.4 Please describe the terrain within your agency's sewer service area (Mountainous, Hilly, Flat, Valley, etc.)? **Flat to hilly**

3.5 Please specify what percentage of the collection system's flow comes from residential, commercial, industrial, and institutional sources. **95% residential and 5% commercial.**

3.6 What is the total mile of easements within your sanitary sewer system? **Unknown as this metric which has not been independently tracked previously.**

3.7 What is your total gravity sewer system cleaning production in miles/year? **Approximately 40-50 miles per year.**

3.8 What is your total force main and other pressure systems cleaning production in miles/year? **0**

3.9 How many air relief valves (ARVs) are located throughout the sewer collection system? **16**

3.10 How many siphons are located throughout the sewer collection system? **0**

3.11 Does your agency have any permanently installed flow monitor(s) in the collection system? **Yes**

3.12 If yes to question 3.11 above, please specify the total number of monitor(s) installed. **26 flow meters installed at the SEPS lake intake, headworks, SEPS pump station and at lift stations 1-19 & 21.**

3.13 Does your agency own any separately enrolled collection systems? **Yes**

3.14 If yes to question 3.13, which collection system(s) does your agency own?

i Collection System name(s): Kelseyville Co Water Works Dis & AD9-2 CS

ii Collection System WDID(s): 5SSO10974

i Collection System name(s): Lake Co Sanitation Dist AD 9-1 & AD 9-3 CS

ii Collection System WDID(s): 5SSO10982

i Collection System name(s): Middletown Regional Waste Disp Fac CS

ii Collection System WDID(s): 5SSO10997

i Collection System name(s): Nw Regional Waste Disp Fac CS

ii Collection System WDID(s): 5SSO11015

3.15 Do any upstream collection systems discharge into this collection system? **No**

3.16 If yes to question 3.15, which collection system(s) discharge into this collection system?

i Upstream Collection System name(s):

ii Upstream Collection System WDID(s):

Pumping Facility Assets

3.17 Has your agency conducted a risk assessment for each pumping station? **Not formally**

3.18 How many of these assets have redundant pipelines installed? **4**

3.19 How many pump stations have dedicated emergency stand-by power generators located onsite? **4**

3.20 Has your agency developed written standard and emergency operating procedures for major sewer assets covering power and/or pumping failure(s) to minimize SSOs? **Yes, in the SSMP**

3.21 Has your agency identified critical spare parts for each asset? **Yes**

3.22 For question 3.21, does your agency maintain the spare parts identified for each asset? **Yes, to the extent possible. The District has three utility areas and if a part is not in stock at one utility area it is usually available from one of the other utility areas.**

3.23 How many facilities are located within 100 feet of a surface water, creek, or drainage cha **of 23 lift stations**

3.24 How many are located within 20 feet of a storm drain inlet? **2**

3.25 How many pump stations are equipped with audible and/or visual alarms located in public view to expedite notification to your agency in the event of an SSO? **All of the 23 lift stations**

3.26 How many pump stations are equipped with an Auto Dialer Alarm System(s) for detecting pump failure and/or high wet well levels? **22**

3.27 How many pump stations have a supervisory, control and data acquisition system (SCADA) installed and operational? **22 of the 23**

3.28 For question 3.27, how many can be remotely operated? **22**

3.29 How many pump stations display emergency notification signage, including agency contact information, in public view to expedite notification to your agency in the event of an SSO? **All of the 23 lift stations**

3.30 Does your agency implement vandalism control efforts to discourage unauthorized access and/or vandalism to these assets? **The lift stations are inspected at least once a week and staff are on the look out for illegal access, graffiti, vandalism etc.**

3.31 How many pump stations have built-in pumping bypass capability for emergency use? **7**

3.32 How many pump stations have electrical power connections installed to allow for the use of portable emergency generators? **All of the 23 lift stations**

Force Main Sewer Assets

3.33 How many sewer force mains are owned by your agency? **21**

3.34 For the assets in question 3.33, has your agency conducted a risk assessment for each asset? **Not formally**

4. FINANCIAL INFORMATION

Funding Sources and Revenues

4.1 Does your agency utilize an Enterprise Fund for services provided to the public? **Yes**

4.2 If yes to question 4.1, what is the estimated annual revenue generated from this fund? **$4,803,349**

4.3 If no to 4.1, what is the current balance of funds available for your sewer system? **N/A**

4.4 Please provide a brief description of all sewer collection system funding source(s) (e.g., sewer user fees, annual budget allocation, property taxes, etc.). **Late Fees, Interest, Grants, Sewer User Fees, Sewer Capacity Fees, Septic Hauling Fees, Delinquent Sewer collected on Property Tax Bills, CIP User Fees, O&M Reimbursement Agreements**

4.5 What is your agency's current average monthly household user fee for sewage collection only? **$85.80**

4.6 For question 4.5 above, specify the last date that sewer fees were increased by your local governing board. **2/9/2022**

4.7 Has your local governing board approved any future sewer use fee increase(s)? **No**

5. LOCAL SEWER USE ORDINANCE

Skip to Section 5 if no Ordinance.

5.1 Does the Ordinance give your agency the authority to inspect grease producing facilities? **Yes**

5.2 Does the Ordinance provide your agency with proper authority to issue notices of violation (NOVs)? **Yes**

5.3 If yes to question 5.2, how many NOVs has your agency issued in the past 3 years? **0**

5.4 Does the Ordinance provide your agency with proper authority to issue enforcement penalties for violators? **Yes**

5.5 If yes to question, 5.4, how many enforcement penalties has your agency issued in the past 3 years? **0**

5.6 Does the Ordinance provide your agency with the proper authority to ban connections and/or disconnect services for violators? **Yes**

5.7 If yes to question 5.6, how many actions has your agency taken in the past 3 years? **o**

5.8 Does the Ordinance provide your agency with the authority to limit future development and/or building? **Yes**

5.9 If yes to question 5.8, how many actions has your agency taken in the past 3 years? **Based on capacity analysis reviews for each development over 20 SFD equivalents (per ordinance), none have been warranted.**

6. CAPITAL IMPROVEMENT PLAN

6.1 How long is the CIP planned out for (e.g., 5 years, 10 years, etc.)? **Previous CIP/Master Plan was a 10 year document**

6.2 How are emergency repairs prioritized? **Emergency repairs tend to be addressed immediately.**

6.3 If not included in the CIP, please provide a breakdown of what money is being spent on (e.g., pipeline replacements, pump station upgrades, etc.). **Pipeline spot repairs, pump station repairs, equipment purchases (hydrovac, camera inspection van, maintenance vehicles, generators, pumps, etc.), septic hauler dump station,**

6.4 What is the projected date of your next CIP update? **2025**

7. OPERATIONS AND MAINTENANCE PROGRAM

Computerized Maintenance Management System (CMMS)

7.1 Does your agency use a CMMS to generate work orders and track sewer maintenance, operations, and management information? **No, but the District is in the process of using Civic Spark fellows to create a GIS asset management system.**

7.2 If yes to question 7.1, is CMMS data used for ongoing strategies to eliminate/reduce SSOs? **N/A**

7.3 If yes to question 7.1, is the CMMS data used to evaluate cleaning production rates? **N/A**

7.4 If yes to question 7.1, does your agency use the CMMS information to provide data for tracking system trends, problems and/or performance? **N/A**

7.5 If no to question 7.1, does your agency have a different method in place to provide data for tracking system trends, problems and/or performance? **Service Requests issued to field staff from our Cost Accounting Management System as well as historical knowledge of known problem areas by field staff.**

Inspections, Operations, and Management Activities

7.6 What is the total number of focused problem areas ("hot spots") located throughout the collection system? **Currently there are 3 areas which are know "hot spots"**

7.7 What percentage of all gravity sewers under your agency's responsibility have been visually inspected with Closed-Circuit Television (CCTV) to date? **100%**

7.8 Specify most recent date of completion for answer listed in 6.7 above. **2019, 4.13 miles were cleaned and visually inspected in 2023.**

7.9 What percentage of CCTV video listed in answer 6.7 above has been reviewed and ranked? **0**

7.10 What is your agency's planned CCTV inspection production scheduled for the next fiscal year (miles)? **30-40 miles or about a third of the collection system**

7.11 What is your agency's planned total gravity sewer collection system cleaning production in the next fiscal year (miles)? **4-5 miles**

7.12 Does your agency have a method in use for reviewing and analyzing force main sewers and their components? **Lift stations and force main initial components are inspected at least weekly, ARV's and force main discharge locations are inspected informally if there is concern or noted issues.**

7.13 Does your agency have a program to inspect and maintain air relief valves (ARVs)? **Informally as noted above, we will be implementing one under our new Area Superintendent.**

7.14 How many ARVs are not accessible for inspection/maintenance? **0**

7.15 What was the total number of ARVs exercised and cleaned in the previous fiscal year? **0**

7.16 What is the total number of ARVs planned to be exercised and cleaned in the next fiscal year? **30-40**

7.17 What is the total number of public access points (manholes, lamp holes, rod holes, etc.) inspected in the previous fiscal year? **Approximately 200**

7.18 What is the total number of public access points (manholes, lamp holes, rod holes, etc.) scheduled to be inspected in the next fiscal year? **Approximately 700 which is one third of all manholes within this collection system**

7.19 Does your agency visually inspect pipeline routes at least annually; after major storms, earthquakes, or other events that could damage these assets; to check for sink holes or leaks along force main(s)? **We currently inspect the geysers effluent pipeline on a regular basis. The new Area Superintendent is going to be implementing a schedule to perform inspections of all force mains on a regular schedule or after major storm events or seismic events.**

7.20 How many above ground crossings (if applicable) were inspected in the previous fiscal year? **1**

7.21 How many siphons (if applicable) were inspected in the previous fiscal year? **N/A**

7.22 Does your agency have a process to identify areas subject to excess hydrogen sulfide corrosion? **Just through routine inspections**

7.23 Does your agency have a formal pipe grading process in place to identify pipe discontinuities**? Yes, the District recently purchased a new camera van with POSM software that will create a level of service based off the camera inspection. Part of that grading process involves defects including pipe offsets and discontinuities.**

7.24 Does your agency require video (CCTV) inspections before and after cleaning to measure the effectiveness of these activities? **Yes**

7.25 Does your agency video (CCTV) inspect pipes after all SSO(s)? **Yes**

7.26 Does your agency conduct smoke, dye, or other tests to check for illicit connections? **Yes**

7.27 If yes to question 7.26, how many miles of sewer system were tested in the previous fiscal year? **0**

7.28 Does your agency have formal agreements in place to increase resources through established mutual assistance agreements with other agencies/contractors for wet weather episodes or for SSO response activities? **Yes**

7.29 Does your agency have a program in place to identify areas with inflow and infiltration (I/I)? **Yes**

7.30 If yes to question 7.29, estimate the total number of miles identified by this program. [# or Unknown] **Unknown**

7.31 Does your agency have an active root control program in place? **Yes**

7.32 If yes to question 7.31, please list the type(s) of control efforts in place (e.g., chemical, mechanical, etc.). M**echanical control**

7.33 If your agency uses chemical(s) for root control, please list chemical(s) used. **N/A**

Fats, Oils and Grease

7.34 Does your agency have a commercial FOG program in place? **Yes**

7.35 If no to question 7.34, has your agency justified in its SSMP why a FOG program is not needed? **N/A**

7.36 If yes to question 7.34, does your agency have a FOG Ordinance separate from the sewer use ordinance? **No, FOG specific sections are included within the Sewer Use Ordinance adopted by the District.**

7.37 If yes to question 7.34, approximately how many food service establishments (FSEs) such as restaurants, schools, hospitals, jails, and convalescent homes are subject to FOG control. **54**

7.38 If yes to question 7.34, what is the total number of FSE permits issued for FOG control? **54**

7.39 If yes to question 7.34, what is the total number of FSE FOG inspectors? **2**

7.40 If yes to question 7.34, how many FSE FOG inspections were conducted in the previous fiscal year? **13**

7.41 If yes to question 7.34, how many FSE FOG enforcement action(s) were initiated in the previous fiscal year? **0**

7.42 If yes to question 7.34, how many FSE FOG inspections are planned for the next fiscal year?**20**

7.43 Does your agency have a residential FOG program in place? **No, but if there are issues with fog in a residential area, CCTV camera work will be used to identify the residence or residences causing the fog issue and a notice of violation will be sent to them along with FOG information explaining the importance of not disposing of fats, oils or grease in the sewer system. There is also a home based business ordinance and our department works closely with County Environmental Health to identify and ensure that properly sized grease traps are installed in any home based food businesses. Staff is proactive about investigating residential based food services and ensuring compliance with the appropriate ordinances.**

Sewer Contract Services

7.44 Does your agency retain contract service(s) for sewer collection system maintenance, operations, and/or management? **No**

7.45 If yes to question 7.44, for services, please provide some basic information about these services in the table below:

Contractor Name	Description (cleaning, root control,	Frequency of Contract	Budget (Annual $)

	repairs, etc.)		

8. SSO EMERGENCY RESPONSE PROGRAM

8.1 Does your agency's SSO Emergency Response Plan incorporate procedures for pump stations/force main sewers? **Yes**

8.2 Does your agency have a dispatcher(s) within your agency to handle, dispatch and document incoming complaints from your sewer system customers? **Yes, Admin Staff thru the use of CAMS**

8.3 Does your agency have standard operating procedures (SOPs) in place to test and document, at least once per year, the performance of its after-hours emergency notification system(s)? **No**

8.4 Does your agency provide and document any scenario based SSO emergency response simulation training for collections staff at least on an annual basis to ensure staff are properly trained and prepared in the event of an SSO? **Yes. We have just begun this with the new SERP.**

8.5 If yes to 8.4, does this training include practical exercises including researching SSO start times and calculating the SSO volume spilled and recovered? **Yes**

8.6 Do your emergency operating procedures (EOPs) include requirements to determine the impact of an SSO, including accelerated or additional environmental monitoring? **Yes**

9. COLLECTIONS STAFFING AND TRAINING

9.1 What is the total number of dedicated sewer maintenance crews in place at your agency? **3, one within each of the three maintenance areas. There are 13 employees within the SE Utility Area 1.**

9.2 For question 9.1, how many staff are typically in each maintenance crew? **10-15 employees**

9.3 Does your agency require collections staff to review the SSS WDRs and the agency's SSMP at least annually? **Yes. There are refresher / onboarding webinars thru DKF Solutions for recurrent training and for new employees that go over the SERP and the WDRs.**

9.4 Does your agency provide initial and recurrent training to appropriate staff regarding your agency's SSO Emergency Response Plan and O&M programs? **Yes. There are refresher / onboarding webinars thru DKF Solutions for recurrent training and for new employees that go over the SERP and the WDRs.**

9.5 If yes to 9.4, what is the total number of individuals trained in the previous fiscal year? **5 employees attended the Surface Water Sampling training, 3 employees attended the in-class training for the revised SERP and WDRs, and 3 employees attended the field drills and SSO simulation.**

9.6 For contracted sewer services, do your contracting specifications contain specific language requiring initial and recurrent training of contractor staff regarding your agency's SSO Emergency Response Plan and O&M programs? **Yes, if the District contracts out any work the contractor is required to attend the refresher / onboarding webinars by DKF Solutions as well as being familiar with and having a copy of the SERP on site during the course of the work.**

10. MAJOR EQUIPMENT INVENTORY

10.1 How many combination truck(s) (hydro flush/vacuum models) are owned and/or leased by your agency? **4**

10.2 How many hydro flusher(s) are owned and/or leased by your agency? **2**

10.3 How many mechanical rodder(s) are owned and/or leased by your agency? **6**

10.4 How many video (CCTV) inspection system(s) are owned and/or leased by your agency? **7**

10.5 How many utility truck(s) are owned and/or leased by your agency? **24**

10.6 How many portable sewage pump(s) are owned and/or leased by your agency? **8**

10.7 How many portable generator(s) are owned and/or leased by your agency? **26**

10.8 Does your agency own equipment designed to block the storm drain system (e.g., sandbags, waddles, absorbent socks, etc.), in an emergency, to prevent untreated or partially treated wastewater from reaching surface waters? **Yes**

11. EXTERNAL COMMUNICATIONS PROGRAM

11.1 Does your agency have a program in place for communicating with and receiving input from the public regarding the development, implementation, and performance of its SSMP? **Yes**

11.2 Does your agency have a program in place for communicating with upstream or downstream satellite sewer system(s) connected to its collection system? **N/A**

12. NOTIFICATION, REPORTING, AND RECORD KEEPING

12.1 Does your agency maintain a list and description of all sewer-related complaints from customers for the past 5 years, including calls received after normal working hours? **Yes, it is noted in CAMS.**

12.2 If yes to question 12.1, does this include information for privately owned sewer laterals? **Yes**

12.3 How many complaints were received in the previous fiscal year? **59**

12.4 How many complaints were responded to? **59**

12.5 Does your agency have a quality assurance/quality control (QA/QC) procedure in place for review of technical information collected by field staff prior to certification of the SSO report(s) in the Water Board's online reporting system (CIWQS) by the Legally Responsible Official(s)? **Yes**

12.6 Does your agency require crews to take photos of <u>all</u> SSOs? **Yes**

12.7 Does your agency have a procedure(s) in place for collecting field information to assist in determining the actual SSO start time? **Yes**

12.8 Does your agency use SOPs to estimate SSO volume spilled, recovered, and not recovered, including estimation of cleanup water used? **Yes**

12.9 Does your agency regularly update initial reports given to the California Emergency Management Agency, local health department, and Regional Board as information develops regarding SSOs requiring notification? **Yes**

13. SSO REDUCTION PERFORMANCE AND MONITORING PROGRAM

13.1 Does your agency have a process in place to collect data to monitor performance of its SS efforts in reducing SSOs? **Yes**

13.2 If yes to question 13.1, does your agency use the data collected to update SSMP program elements? **If needed during the 5 year audit**

13.3 Does your agency generate SSO reduction performance metric(s) for its collection system for use in future planning? **No**

13.4 Does your agency hold post-SSO briefings with collections staff, management and others involved, to evaluate root cause of SSOs and document service changes necessary to be prepared in responding to SSOs in the future? **Yes**

13.5 Does your agency pursue investigation of upstream satellite(s) or potential illicit dischargers as part of the SSO cause determination process? **Yes**

13.6 Does your agency adjust sewer collection system cleaning interval(s) for problem areas based on review and analysis of each past SSO? **Yes**

13.7 How many of the SSOs over the past 12 months were preventable through more proactive maintenance? **5**

13.8 How many of the SSOs over the past 5 years occurred at repeat locations? **3**

14. DECLARATION

I, Scott Harter, the approved Legally Responsible Official (LRO) of collection system (name and Waste Discharge ID#) Southeast Regional Waste Disposal Facility Collection System; WDID 5SSO11055 certify under penalty of law that based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information in this Pre-Inspection Questionnaire (Version 4.0) is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine or imprisonment, for knowing violations.

Legally Responsible Official Signature

October 23, 2023

Date

COUNTY OF LAKE
SPECIAL DISTRICTS ADMINISTRATION
230 N Main Street
Lakeport, California 95453
Telephone 707/263-0119
Fax 707/263/3836

Scott Harter
Special Districts Administrator

June 3, 2024

Mr. Howard Hold
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Dr., Suite 200
Rancho Cordova, CA 95670

Notice of Violation of Water Quality Order No. 2022-0103-DWQ, Lake County Southeast Regional Waste Disposal Facility Collection System, WDID 5SSO11055

Dear Mr. Hold:

This report presents the response to the Notice of Violation dated May 1, 2024. The Notice of Violation contains a June 3, 2024 date for submitting a written response of what measures have been and are being taken to return to compliance with Order WQ-2022-0103-DWQ, Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems.

Violations:

1. Based on review of CIWQS data reported by the Enrollee between 2007 and 2023, the Enrollee reported that 1,057,089 gallons of untreated sewage reached surface waters: (Clean Water Act, Section 301; Prohibition 4.2 of the SSS WDR's)

   This violation appears to be correct, over the last 16 years the Category 1 SSO's have totaled 1,057,089 gallons. Of note the top 4 spills in the list total 925,400 gallons with the remaining 35 SSO's totaling 131,689 gallons. The District has a proactive inspection, line cleaning, and maintenance regimen and is continually seeking to improve collection system operations. In the Southeast collection system the district maintains approximately 100 miles of gravity mains. The District has acquired equipment to perform acoustic inspections allowing for a more efficient inspection of the collection system. The current superintendent for the collection system is increasing the quantity of the collection system inspected and cleaned each year with the goal of completing inspection of the system on a three year cycle. The new

equipment and the increased inspection schedule should result in fe
SSO's for the collection system.

2. The Enrollee does not have a formal capital improvement plan (CIP).

   The District has a Master Plan which was created by CH2M Hill June 26, 2009 which contains a system analysis as well as alternatives for capacity mitigation projects. The document also contains an analysis of proposed development and estimated costs. This document has served as a CIP and is the most current version presently. Completion of the Lift Station 4 improvements identified in the document have also already occurred. In addition to the master plan document, capital projects are identified in the budget on an annual basis and subsequently adopted by the Board of Directors. The adopted budget then serves as a planning document for capital improvements over a three year period as some projects are planned and budgeted for over multiple years as reserves are built up to fund the project.
   The need for more current CIP documents across multiple departments has been identified within the department and by County Administration and an RFP was issued the beginning of April, due the middle of March, to retain a consultant to develop a Strategic Capital Improvement Plan master planning document for the Special Districts, Public Services, and Public Works Departments. This effort will result in a more current long range planning document (CIP) to assist in guiding the direction of the District in its operation of the Southeast Wastewater Collection System.

3. The Enrollee failed to submit and certify No Spill Reports, Category 4 Spill Reports, and SSO Reports within the required timeline.

   Outstanding reports have been submitted and certified within CIWQS. With recent changes to the SSMP and SERP requirements staff was unfamiliar with the updated Category 3 & 4 submission process and had overlooked certifying the No Spill Reports form. Training for staff has occurred and procedures for certification have been reviewed for pertinent staff to reduce the likelihood that reporting requirements are missed in the future.

Area(s) of Concern:

1. The Enrollee does not have emergency signage for aerial crossings or ARVs.

   The one location inspected during the audit does not have emergency signage. Staff has ordered appropriate signs identifying the facility and

providing a 24/7 emergency number.

2. There has been a significant delay in alarm notification from the Enrollee's third-party alarm company.

   Internal policies of the alarm company have never resulted in an SSO or other negative consequence for the District. The alarm company had a policy to wait an hour after an unsuccessful notification attempt before trying to notify again. We have worked to provide additional means of communication for them to attempt before they determine the district to be unreachable between calls. This has reduced the delay in notifications from the company and provided greater resilience within that system.

3. The Enrollee has had difficulties obtaining a capacity management operation and maintenance (CMOM) coordinator.

   This is accurate, since the retirement of the former CMOM Coordinator there have been multiple recruitment attempts which were unsuccessful. As a result the district has been working with HR to revise the job description, job requirements, and salary in an effort to make the recruitment process successful. The Board of Supervisors has recently approved the salary and duty changes, the position is funded in the upcoming budget cycle, and recruitment is scheduled to begin July 1.

4. The Enrollee does not have formalized standard operating procedures (SOPs) for training and operation and maintenance.

   This is partially accurate, the District does have SOP's in place for the operation of some of our equipment and lift stations, etc. however, the SOP's are not exhaustive. Our Utility Systems Compliance Coordinator position is tasked with creating SOP's where they are lacking. Successful recruitment of the CMOM Coordinator will allow our US Compliance Coordinator the ability to focus more on those duties.

5. The Enrollee does not re-review CCTV footage after the initial inspection.

   This is only partially accurate and implies that the initial inspection is insufficient. The district has recently acquired a new CCTV van which was available for inspection during the audit. This new van is equipped with software which allows the operator to annotate the captured video in real time with any defects or concerns and to generate a PACP rating for the inspected segment during that initial inspection.

Even prior to the acquisition of the updated equipment if field staff noted areas of concern on a segment of pipeline during the inspection office staff, typically the deputy administrator, would re-review the footage and appropriate actions would be taken to rectify any issues discovered.

6. The Enrollee does not have a method in place to inspect and maintain air relief valves (ARVs).

   ARV's are typically inspected as part of staff duties however there has not been a formal method or schedule in place. Staff will develop a map, inspection checklist, and schedule to facilitate a reliable inspection regimen for the system ARV's

7. The Enrollee does not use a computerized maintenance management system (CMMS) and relies on historical knowledge of problem areas.

   This is not entirely accurate. While historical knowledge of problem areas is helpful it is not the only means by which data about the collection system is stored. Service requests and issues are reported and currently indexed in our Cost Accounting Management System (billing and service request/work order software). This software maintains a record of known issues and provides for an electronic database of said issues. It's not modern or GIS based but it is a computerized database of system maintenance. Staff is currently utilizing ESRI ArcGIS products to establish a CMMS within our existing GIS mapping of our infrastructure. It has been a multi-year effort starting with the proofing of our GIS map grade data and conversion of the data to pipeline collection shapes rather than simple polylines. Once the GIS data is vetted, the maintenance tracking and planning tools within the software can be fully utilized to provide a modern, GIS based CMMS for the district.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments 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, including the possibility of fine and imprisonment.

Digitally signed by Scott Harter
Date: 2024.06.03 09:12:30 -07'00'

Scott Harter,
Administrator

Certified Spill Report for Category 1 Spills

Spill Event ID:	904788	**Spill Location Name:**	2735 Robin Lane, Clearlake
Sanitary Sewer System:	Southeast Regional Waste Disp Fac CS	**Agency:**	Lake Cnty
Spill Report Type:	Category 1 Spill	**Spill Report Status:**	Certified
Initial Draft Submitted On:	01/14/2026	**Certified On:**	04/10/2026
Spill Report Version Number:	2.2		

File Name	File Description	Uploaded Date	Status
904788_Version_2.2.pdf	Certified spill pdf : 904788_Version_2.2.pdf	2026-04-10	OK
Laundry Trailer.jpg	A 10 Unit Laundry Trailer was brought in to provide the residents with laundry service. Residents would drop off their soiled laundry and the staff would wash, dry and fold and then notify the residents when the laundry was ready for pick up.	2026-04-10	OK
Dish Washing Station.jpg	A dish washing station was brought in for the affected residents.	2026-04-10	OK
Inside look at the Shower Trailer Shower Stall.jpg	Inside look at one of the Shower Trailer Shower Stalls.	2026-04-10	OK
Family Style Shower Unit.jpg	An additional shower trailer with two large family style shower stalls were brought in for larger families with children.	2026-04-10	OK
Portable restroom and washing station for 2865 Robin Lane Sunnys Daycare.jpg	LCSD had a portable restroom and washing station brought in for the Daycare at 2865 Robin Lane so the business could stay open and operating.	2026-04-10	OK
Staff preparing clean livestock holding areas.jpg	Our Staff removed soiled bedding in livestock pens and replaced with clean fresh straw. This area was close to the spill area and out of caution we removed all existing straw and hay bales, disinfected the ground and then replaced the bedding and hay bales for the owners. We have a staff member from the Ag Department out to inspect the livestock areas.	2026-04-10	OK
Laundry Trailer.jpg	Laundry Service Trailer onsite to provide laundry service to affected residents. Residents would drop off soiled laundry and the service staff would wash, dry and fold for them.	2026-04-10	OK
Attachments A-G.pdf	Technical Report Attachments A-G	2026-04-10	OK
Technical Report CIWQ904788 CalOES26-0181.pdf	Technical Report	2026-04-10	OK
904788_Version_1.2.pdf	Certified spill pdf : 904788_Version_1.2.pdf	2026-01-26	OK
Robin Lane 1-11-2026.pdf	Draft Technical Report and Response Update	2026-01-26	OK
IMG_2978.HEIC	Clean up	2026-01-26	OK
IMG_3633.JPG	Removal of contaminated soil and new soil brought in	2026-01-26	OK
IMG_3697.JPG	Removal of contaminated soil and replacement soil brought in	2026-01-26	OK
IMG_3638.JPG	Decon 30 used on paved driveways and hard surfaces	2026-01-26	OK
IMG_3368.JPG	Ag Lime	2026-01-26	OK
IMG_1411.HEIC	Ag Lime on dirt roads (Robin Lane) and driveways.	2026-01-26	OK
Red Cross.jpg	Red Cross Resources for Residents affected	2026-01-26	OK
AG Lime Robin LN 2.jpg	Begin Ag Lime on Robin Lane near 2735 Robin Lane at spill starting point and working our way down south towards Rumsey Rd.	2026-01-26	OK
2888 Robin Lane 0846 1-13-26.jpg	2888 Robin Lane 1/13/2026. Pumper Trucks ran all night to get up as much sewage from the ground as possible. Now we begin clean up phase	2026-01-26	OK
2735 Robin Lane - 0739 1-13-16.jpg	1/13/2026 Morning after spill was stopped	2026-01-26	OK
2735 Robin Lane - 1-13-26 0740.jpg	1/13/2026 Morning after spill was stopped with time stamp	2026-01-26	OK
2735 Robin Lane - End of Property near gate 0740 1-13-26.jpg	1-13-2026 Morning after spill was stopped. Most sewage was sucked up overnight via pumper trucks. Ponding still in low laying areas	2026-01-26	OK
CCTV 16 inch FM.jpg	CCTV 16 inch FM before repair	2026-01-26	OK
16 inch FM.jpg	FM Repair	2026-01-26	OK
New pipe used for repair 2026.jpg	pipe used for repair now, 2026	2026-01-26	OK
Old PVC pipe used in 2003 for repair patch.jpg	pipe used for repair in 2003.	2026-01-26	OK
2735 Robin Lane Excavated Break Location 0738 1-13-26.jpg	break point	2026-01-26	OK

Forcemain Break.jpg	Morning of 1/13/2026 excavated location and found broken FM. Break was at the previous repair point done 23 years prior in 2003	2026-01-26	
Spill Stop Time 2155 1-12-26.jpg	Spill Stop Time approx. 9:55 PM 1-12-2026	2026-01-26	OK
16 inch valve shut off at 2141 1-12-26.jpg	16 inch Valve shut off at approx. 9:41 PM 1-12-26	2026-01-26	OK
2735 Robin Lane - Road Closed 1003AM 1-11-26.jpg	Road Closed Signs	2026-01-26	OK
Prepping New 10 Inch Valve LS1 1935 1-12-26.jpg	10" valve failed shut when turning on the bypass and had to be replaced on 1/12/2026 to shut down the 16" FM.	2026-01-26	OK
10 Inch Valve Replacement LS1 1654 1-12-26.jpg	Once the 16Inch Valve was completed, the 10Inch bypass valve failed shut and had to be replaced before shutting down the 16 FM to stop the flow.	2026-01-26	OK
16 inch Hot Tap Valve Completed Close Up.jpg	16" valve hot tap completed 1/12/2026	2026-01-26	OK
Setting up 16 inch Hot Tap 0735 1-12-26.jpg	16Inch Hot Tap to install 16" Valve - Valve installation was completed 1/12/2026	2026-01-26	OK
2735 Robin Lane spill appearance point 1149AM 1-11-26.jpg	Appearance point 1/11/2026 at 11:49 AM	2026-01-26	OK
2735 Robin Lane - Setting up pump for Bypass 1418 1-11-26.jpg	Setting up for possible Bypass to alleviate the spill volume 1/11/2026	2026-01-26	OK
IMG_5379.HEIC	On the street near 2888 Robin Lane at 3:13 PM 1/11/2026	2026-01-26	OK
IMG_0516.JPG	Waddles and sandbags to prevent spilling into the drainage ditch on 1/12/26 at 11:30AM	2026-01-26	OK
Spill in to_creek screenshot-Pamela.jpg	Photo shows where the sewer spilled into the drainage ditch at 2990 Pamela Lane for approx. 2 hours on 1/12/2025. Intermittently between 5:25 PM to 7:00 PM between pumper truck rotations.	2026-01-26	OK
Screenshot 2026-01-26 121512.png	Screenshot from Dorne footage shows where the sewage crossed through the property at 2865 and 2895 Robin Lane, through 2915 Robin Lane to the end point at 2990 Pamela Lane.	2026-01-26	OK
Screenshot 2026-01-26 121435.png	Screenshot taken from drone footage shows beginning location near 2735 Robin Lane and most of the spill area on Robin Lane	2026-01-26	OK
Screenshot 2026-01-26 121159.png	Drone footage from day of spill. This screenshot shows the arial view of the start location near 2735 Robin Lane	2026-01-26	OK
Robin Lane Break Location 1149 AM 1-11-26.jpg	Spill Start Location at approx. 11:49 AM with piece of broken pipe in bottom corner	2026-01-26	OK
IMG_0471.MOV	Short video when staff first arrived on scene.	2026-01-26	OK
IMG_0475.JPG	Staff on scene with Vac Truck at spill start location point.	2026-01-26	OK
IMG_0463.JPG	This Picture is from the Standby Staff who arrived at 8:00 AM 1/11/2026. This is standing at 2735 Robin Lane looking down (south) towards Rumsey Rd. This is the spill start location	2026-01-26	OK

Spill Report General Information	
1. Name of Enrollee contact person to respond to spill-specific questions:	Lori Baca
1.a. Telephone number of Enrollee contact person to respond to spill-specific questions:	(707) 263-0119
2. Spill Location Name:	2735 Robin Lane, Clearlake
3. Date and time the Enrollee was notified of, or self-discovered, the spill:	01/11/2026 07:45
4. Operator arrival time:	01/11/2026 07:49
5. Estimated spill start date and time:	01/11/2026 07:30
6. Date and time the Enrollee notified the California Office of Emergency Services:	01/11/2026 09:33
6.a. Assigned control number:	26-0181
7. Description, photographs, and GPS coordinates of the system location where the spill originated: If a single spill 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 spill appearance point explanation field:	On January 11, 2026, a local resident called in at approx. 7:30 AM reporting that water was starting to run down the street. Standby arrived on scene at 8:00 AM and determined that sewer was coming out of the 16” Sewer Force Main near 2735 Robin Lane in Clearlake. Standby immediately called for additional staff and staff brought out the first Vac Truck by 8:30 AM, while remaining staff began to work on getting the valve shut off. The spill began to travel down Robin Lane (a dirt road) and onto several properties between Robin Lane and Pamela Lane. The spill eventually reached a drainage ditch near 2990 Pamela Lane; however, crews were able to stop the flow into the drainage ditch by setting up waddles, sandbags staging Vac Trucks/Pumper Trucks on site. (see attached Technical Report dated April 9, 2026, for details)
7.a. Lattitude:	38.97553
7.b. Longitude:	-122.6242
7.c. Appearance points:	Force Main

7.d. If other, describe:	
7.e. Additional spill appearance point(s) explanation:	
8. Estimated total spill volume exiting the system:	1381480
9. Description and photographs of the extent of the spill and spill boundaries:	Please see attached photos/maps. Please see Technical Report dated April 9, 2026.
10. Did the spill reach a drainage conveyance system?:	Y
10.a. Description of the drainage conveyance system transporting the spill and photographs of the drainage conveyance system entry location(s):	Spill reached a drainage ditch near 2990 Pamela Lane. The Drainage ditch runs into Burns Valley Creek. Please see the attached Final Technical Report dated April 9, 2026 for details.
10.b. Estimated spill volume fully recovered from the drainage conveyance system:	0
10.c. Estimated spill volume remaining within the drainage conveyance system:	3900
11. Description and photographs of all discharge point(s) into the surface water:	The spill reached a dirt drainage ditch that runs along Pamela Lane and into Burns Valley Creek. The entry point and where staff was stationed with Vac Trucks/Pumper Trucks was near 2990 Pamela Lane and the sewer spilled over the embankment off and on during the higher surge times between pumper trucks. The spill time was short between pumper trucks and photos are attached. The below Estimated total spill volume recovered is 1,771,300 (see the Technical Report for details) however, it will not let me enter an amount greater than the spill total. Aside from the 3,900 gallons spilled into the drainage ditch, the amount recovered from the surface (see technical report) was more than what was spilled due to rainfall, failed septic systems etc.
12. Estimated spill volume that discharged to surface waters:	3900
13. Estimated total spill volume recovered:	1381480

Certification Questionnaire	
1. Spill Destination(s):	Drainage Conveyance System, Building or Structure, Unpaved Surface, Drainage Conveyance System that discharges to surface water
1.a. If other, describe:	
1.b. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill:	The spill starting point was located near 2735 Robin Lane and traveled south down the dirt road and through a few properties between Robin Lane and Pamela Lane. See pictures attached
1.c. Coordinates available?	Y
1.d. Lattitude:	38.97552
1.e. Longitude:	-122.62421
1.f. Lattitude:	38.97092
1.g. Longitude:	-122.62429
1.h. Lattitude:	38.97092
1.i. Longitude:	-122.62498
1.j. Lattitude:	38.97005
1.k. Longitude:	-122.62647
2. Spill end date and time:	01/12/2026 21:55
3. Description of how the spill volume estimations were calculated, including at a minimum: The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information, used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered):	Staff took the last known influent meter read from Friday, January 9, 2026, and then another read from after the spill was stopped and then calculated the daily average. Once they found the average the staff then multiplied that by the duration of the spill. The original reported (draft) spill volume number was 2.9 MGD, however, that did not take into consideration the number of gallons pumped directly out of LS #1 and #2 by Pumper Trucks from 1/11/26-1/12/26 which has reduced the total spill volume down to 1.3 million. In order to accurately account for the number of gallons pumped from LS#1 and #2, we had to gather all Pumper Truck Invoices and track the locations and gallons pumped. We have now also calculated the number of gallons the pumper trucks sucked up off the surface area of the spill for recovery, as well as the contaminated soil removal. Please see the attached Technical Report dated April 9, 2026 for details.

3.a. Description of the methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time:	The spill start time was recorde AM 1/11/2026 according to the local resident caller. The 16" valve was repaired, and the valve was turned off at approx. 9:41 PM on 1/12/2026 and the flow was recorded stopped at the break point location at approx. 9:55 PM 1/12/2026. See attached Final Technical Report dated April 9, 2026 with attachments and pictures
4. Spill cause(s):	Pipe Structural Problem/Failure - Installation
4.a. If other, describe:	A repair to the 16-inch FM that was done in 2003 failed, which caused the initial spill. The 16-inch valve seized when staff was turning it off to stop the spill, which caused the extended spill duration.
5. System failure location:	Force Main
5.a. If other, describe:	
6. Description of the pipe material, at the failure location:	Polyvinyl Chloride (PVC)
6.a. If other, describe:	
6b. Estimated age of pipe material, at the failure location:	23
7. Description of the impact of the spill:	The spill impacted multiple properties along Robin Lane and Pamela Lane in Clearlake. The spill reached a drainage ditch that runs along Pamela Lane that runs into Burns Valley Creek. The spill affected several private drinking wells in the area of Robin Lane and Pamela Lane and the local Public Health Department as well as Special Districts are mitigating the effects of the spill regarding the private wells in the area. Please see the Technical Report dated April 9, 2026 for more details.
8. Was the spill associated with a storm event?	N
9. Spill response activities:	Restored Flow, Mitigated Effects of Spill (specify below), Other (specify below), Other Enforcement Agency Notified, Returned Portion of Spill to Sanitary Sewer System, Contained All or Portion of Spill, Property Owner Notified, Cleaned Up (specify below)
9.a. If other, describe:	Special Districts has provided multiple resources to the affected residents including several pallets of water which has been provided to residents door to door by our staff, a Potable Water Station, Shower Trailer with 10 shower stalls, Laundry Service, Water delivery for Livestock, Potable Water Delivery to existing water tanks, and additional resources such as Red Cross and Catholic Charities has made donations and have provided additional resources as well.
9.b. Description of spill response activities including description of immediate spill containment and cleanup efforts:	Our staff immediately responded with our VAC Truck and called in ALL STAFF to assist. Our staff set up waddles and sandbag barriers in many locations to contain sewage from getting into driveways and properties and the drainage ditch. Staff called the outlying service areas who also responded with their Vac Trucks (three total) and ten pumper truck companies were called in immediately, each bringing several trucks to pump sewage out of puddles in the road and off the properties where the sewage was ponding on Robin Lane and Pamela Lane. Our staff relocated livestock and assisted residents with relocating to hotels if needed (elderly or disabled). Our Staff assisted Environmental Health with Well Sampling and setting up contractors to begin sanitizing wells in the affected area. Special Districts is still providing resources to the residents in the area such as Laundry Service, Potable Water Station, Shower Trailers and providing additional resources as needed. Please see attached pics
10. Spill corrective action:	Inspected Sewer Using CCTV to Determine Cause, Repaired Facilities or Replaced Defect, Other (specify below)
10.a. If other, describe:	We are currently seeking funding to upgrade the Headworks and installing additional safeguards to the system.
10.b. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps:	N/A
10.c. Schedule of major milestones:	N/A
11. Spill response completion date:	01/26/2026

12. Detailed narrative of investigation and investigation findings of cause of spill:	The spill cause was determined [illegible] previous repair location that was done in 2003. The continued duration of the spill was caused by a seized valve. Please see Technical Report Dated April 9, 2026, for full details.
13. Is the Enrollee conducting an ongoing investigation?	N
13.a. Reasons for an ongoing investigation:	
13.b. Expected date of completion of investigation:	
14. Name of receiving water body(s):	Burns Valley Creek
14.a. Type of receiving water body(s):	Stream/Creek
14.b. If other, describe:	
15. Description of the water body(s):	The sewage entered the dirt drainage ditch that runs along Pamela Lane, entry point was near 2990 Pamela Lane. The drainage ditch was currently running with rainwater/storm water runoff and runs into Burns Valley Creek. Please see attached pictures and Technical Report for details.
15.a. Observed impacts on aquatic life:	N/A
15.b. Public access impact:	Restricted Public Access, Public Closure
15.c. If other, describe:	
15.d. Responsible entity for closing/restricting use of water body:	Environmental Health
15.e. Number of days closed/restricted as a result of the spill:	15
16. Was the spill located within 1,000 feet of a municipal surface water intake?	N
17. Were water quality samples collected?	Y
17.a. Identify sample locations:	By Water Resources, see Final Technical Report for more details.
17.b. Identify parameters the water quality samples were analyzed for:	This was done by the Water Resources Department.

Certification

I certify under penalty of perjury under the laws of the State of California that the electronically submitted information was prepared under my direction or supervision. Based on my inquiry of the person(s) directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete, and complies with the Statewide Sanitary Sewer Systems General Order. I am aware that there are significant penalties for submitting false information.

Certifier Name:	Lori Baca	**Certifier Title:**	Utility Systems Compliance Coordinator
Certifier Initials:	LB	**Certification Date:**	04/10/2026

COUNTY OF LAKE
SPECIAL DISTRICTS ADMINISTRATION
230 N Main Street
Lakeport, California 95453
Telephone 707-263-0119
Fax 707-263-3836

Robin Borre
Special Districts Administrator

April 9, 2026

Howard Hold
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Dr., Ste. 200
Rancho Cordova, CA 95670

Re: CIWQS# 904788, OES# 26-0181

Dear Mr. Hold:

Summary Report of Cause and Circumstances of the January 11-12, 2026 Event:

a) *Complete and detailed explanation of how and when discovered and reported:*

On January 11, 2026, between 7:30 and 7:45 AM, Lake County Special Districts (LCSD) received a call from a local resident indicating that sewage was surfacing from the ground on Robin Lane. Standby operations staff, which arrived on scene at approximately 7:50 AM, determined that untreated wastewater was emanating from a 16-inch sewer force main located near 2735 Robin Lane, a dirt roadway, in Clearlake, and immediately called for additional staff. This infrastructure is part of the Southeast Regional Waste Disposal Facility Collection System, owned and operated by LCSD. The estimated start time was 7:30 AM, on January 11, 2026.

Upon confirmation, staff immediately initiated emergency response procedures and requested additional personnel and equipment to assist with containment and recovery operations.

While awaiting the arrival of additional resources, responding staff deployed wattles in nearby driveways and positioned LCSD's Vactor truck along Robin Lane to begin recovering discharged wastewater.

By approximately 8:30 AM, the first vacuum truck company arrived on site and began active recovery operations at the initial spill location. Crews were able to stop most of the flow into the drainage ditch by setting up wattles and sandbags, and staging Vac Trucks/Pumper Trucks close to that site.

As additional crews arrived—including LCSD utility staff, operators, superintendents, administrative personnel, and a retired Utility Area Superintendent assisting with response efforts—personnel began working to isolate the affected section of the force main by operating system valves.

LCSD notified Environmental Health Director, Craig Wetherbee, at 8:52 AM. California Office of Emergency Services (Cal OES) was notified at approximately 9:33 AM, about one hour after the event began, and the event was assigned control number 26-0181. At this point, there was limited information provided to OES as the extent of the spill was unknown.

At the time of the initial OES phone call, staff was attempting to shut down the pump and stop the spill, this is why the initial call stated the spills was “stopped” and only 2,000 gallons were reported at that time. However, after the initial call, additional information was received that turning off the pump at Lift Station #1 did not stop the spill and it continued to backflow.

The City of Clearlake’s office number was called twice, once at 9:57 AM and again at 10:18 AM (no answer each time). Since the City of Clearlake office did not answer, the Clearlake Police Department was called and notified of the spill at 10:18 AM. Fire Chief William Sepeta was notified the same time and the first “DO NOT USE ORDER” Nixle public safety alert was sent out to the affected area between 10:00-10:30 AM and an updated Nixle went out later in the afternoon between 2:00- 2:30 PM.

Once LCSD was able to contact the city representative, the City of Clearlake was able to provide road closure signs and stationed their public works road staff on Robin Lane and Pamela Lane to keep access limited while LCSD staff was working in those areas. The Public Health/Environmental Health Department placed advisory signs along the drainage ditch on Pamela Lane in both English and Spanish.

LCSD updated the Cal OES incident report with the next day, stating the spill was not stopped at the time of the initial call and was more than 2,000 gallons. However, the exact amount spilled was not available until the calculations could be reviewed.

b) *Diagrams showing failure point, appearance point(s), and destination(s):*

The attached aerial view photos and GIS mapping photos show the failure location, appearance point, and flow pathway. (See Attachments A and B.)

It should be noted that on January 5, 2026, Lake County received a substantial amount of rainfall during an atmospheric storm. The Clearlake area received nearly 2 inches of rainwater during this winter storm event. (See Attachment C, or follow the link at https://weatherspark.com/h/d/593/2026/1/5/Historical-Weather-on-Monday-January-5-2026-in-Clearlake-California-United-

States#Figures-PrecipitationProbability) Thus, puddles scattered across the in photo 121512 are not all sewage, but may also reflect remnants of the prior rain event.

c) *Response Actions:*

Onsite staff immediately called the two additional LCSD outlying service areas and an additional ten pumper truck companies, who came from Lake County, Mendocino County, and even as far as the Vallejo and Vacaville area. Those who responded with their Vac Trucks helped to pump sewage out of puddles in the road and off the properties where the sewage was ponding on Robin Lane and Pamela Lane.

Despite rapid response efforts, wastewater traveled along the dirt road of Robin Lane, affecting several properties located between Robin Lane and Pamela Lane. The flow ultimately reached a drainage ditch near 2990 Pamela Lane that eventually flows into Burns Valley Creek.

Crews immediately installed additional containment measures, including wattles and sandbags, and strategically staged vacuum and pumper trucks to intercept and recover wastewater before it could migrate further. These containment actions successfully prevented additional migration into the drainage ditch.

LCSD personnel stationed at 2990 Pamela Lane observed intermittent wastewater flow during peak system periods and between pumper truck rotations between January 11th and Jan 12th. Recovery operations continued during this entire period, and the estimated discharge calculations are included in the attached documentation. (See Attachment E, pg. 5.)

During initial valve isolation efforts on Jan 11, 2026, crews discovered that the operating nut on the 16-inch isolation valve had failed. Upon excavating and inspecting the valve assembly, staff determined that the valve stem was seized and inoperable, preventing isolation of the affected force main segment.

LCSD staff immediately contacted local contractors within Lake County and neighboring Mendocino County to assist with emergency repairs. Due to the size of the force main and the operating conditions of the system, a specialty contractor capable of performing a hot tap and valve installation on a live 16-inch force main was required.

The contractor initially scheduled the emergency work to be done on the evening of January 11, 2026; however, at approximately 7:00 PM, the contractor notified staff they were unable to mobilize until the following morning. No other qualified contractors were available sooner. Other contractors contacted were either not available, were not qualified, or did not have the proper equipment to perform the work.

A bypass was attempted on January 11th at the spill appearance point, by pumping to a manhole on the treatment plant site that was previously used for

the sprinkler catchment system. The temporary hose size and capacity was adequate to handle the pump capacity, so the bypass was not successful.

The contractor arrived on site at 7:00 AM on January 12, 2026, to begin the hot tap valve installation on the 16-inch force main. Simultaneously, LCSD staff and an additional contractor executed an emergency 10-inch valve installation on the 10-inch sewer force main at Lift Station #1 located at Burns Valley Rd, which also seized shut while staff attempted to and was finally able to bypass the spill.

Both valves were replaced and became operable again. Crews were ultimately able to shut down the 16-inch force main that evening, thereby stopping the discharge at approx. 9:41 PM, January 12, 2026.

d) *Detailed description of the cause(s) of the SSO:*

The cause of the spill was the failure of the force main pipeline at the site of a previous repair performed in 2003. Upon excavation, District staff identified that a section of pipe associated with the historical repair had deteriorated and failed, allowing wastewater to escape. (See photos at Attachment D.)

On the morning of January 13, 2026, LCSD crews excavated the affected pipeline segment and removed the failed section. While the force main was exposed and before repairs were made, LCSD's CMOM and staff were able to CCTV the line and no additional areas of concern were found.

The damaged pipe was replaced with new pipe and appropriately sized couplers designed for the 16-inch force main. After installation, the replaced section was inspected, and the force main was returned to service.

e) *Detailed description of the methodology employed, and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered:*

The final estimated spill volume was calculated in the attached enclosures. (See Attachment E, pg. 2.)

LCSD timely filed its initial draft spill report in the California Integrated Water Quality System (CIWQS) on January 14, 2026 (CIWQS# 904788) and certified the report on January 26, 2026. (See Attachment F.) The originally reported (draft) spill volume number was 2.9 MGD, however, that estimate did not take into consideration the number of gallons pumped directly out of Lift Stations (LS) #1 and #2 by Pumper Trucks from 1/11/26-1/12/26, which substantially reduced the total spill volume. To accurately account for the number of gallons pumped from LS#1 and #2, LCSD staff gathered all Pumper Truck Invoices and tracked the locations and gallons pumped. (See Attachment E, pg. 3.)

The originally reported spill volume was calculated by using influent flow data from the Southeast Regional Wastewater Facility influent flow meter. (See Attachment E, pg. 1.) The last confirmed influent meter reading prior to the spill

occurred on Friday, January 9, 2026. A subsequent influent meter reading was recorded once the spill was stopped.

The difference between the two influent meter readings was calculated to determine the total volume of wastewater received during the period between the readings. This volume was divided by the number of days between meter readings to determine an average daily influent flow rate.

The average daily flow rate was then multiplied by the estimated event duration to estimate the total volume discharged. This calculation provided a larger base number until pumper truck records could be gathered, reviewed, and subtracted.

To estimate the volume of wastewater recovered, pumping records and invoices associated with emergency pumping operations were reviewed. The estimated recovered volume pumped from Lift Station #1 and Lift Station #2 was then subtracted from the calculated discharge volume to determine the final estimated spill volume. (See Attachment E, pg. 3.) LCSD also calculated the contaminated soil removal, which is included in the attached enclosure as well. (Attachment E, pg. 6)

f) Mitigation and Cleanup:

Continuing after the containment of the spill, LCSD personnel conducted extensive cleanup and mitigation activities in the affected area. Vacuum trucks were used for multiple days to remove pooled wastewater and residual contamination from impacted surfaces, including failed private septic systems. The trucks recovered 1,771,300 gallons of water. (Attachment E, pg. 4.)

It should be noted that all residents in this area of Robin Lane and Pamela Lane are not sewered. (See Attachment G, showing areas on sewer and septic.)

Decontamination and cleanup activities began on January 13, 2026, at approximately 8:00 AM, and included:

- Removal of all ponded/puddled sewage from roads and properties.
- Application of agricultural lime (Ag Lime) to dirt roads and dirt driveways; and
- Application of Decon 30 disinfectant to hard surfaces, including driveways, walkways, and areas surrounding structures.

In addition to liquid recovery, crews removed visibly contaminated soil from affected locations to reduce the potential for residual impacts. The impacted areas were cleaned and restored to the maximum extent practicable as part of the response effort. Cleanup operations continued until standing wastewater and visibly impacted materials were removed from the area.

The County of Lake Public Works Department assisted by grading the impacted dirt roadways, removing contaminated material from Robin Lane and Pamela

Lane, and placing approximately three inches of new gravel onto the road surface after decontamination was completed.

g) Public Health Protection and Community Assistance:

LCSD staff immediately began assisting affected residents as needed. District staff worked directly with residents who required additional assistance (elderly or disabled). This included helping sensitive or vulnerable individuals coordinate temporary evacuation and hotel accommodation where appropriate. Hotel accommodations were arranged as soon as 1/12/2026 and continued for an extended amount of time.

Due to the proximity of the spill to residential properties and private wells and the DO NOT USE ORDER set in place by Lake County Public Health Department, LSCD implemented several measures to support and protect affected residents.

District staff purchased and delivered pallets/cases of bottled drinking water to residents in the impacted area to ensure access to safe potable water while well monitoring and testing were ongoing.

Additional resources were mobilized on 1/12/26 to assist the community, providing essential services such as Potable Water, from a delivered Potable Water Station, a Potable Water Truck to fill temporary water tanks, an 8-unit Shower Trailer, and hand/dish Washing Station with two additional family-sized shower stalls. A drop-off Laundry Service was also provided with a 10-unit laundry trailer. These temporary sanitation services were provided to the affected residents until 2/6/2026.

LCSD staff also relocated livestock and worked with the Animal Control Department to organize freshwater deliveries for the local livestock and pets in the area using their water “buffalo” trailer. LCSD also provided livestock owners with additional water receptacles and water was delivered to pets and livestock daily.

These measures were implemented as a precautionary response while environmental monitoring and well sampling were conducted and continued to be made available as part of ongoing response and remediation efforts.

h) Groundwater and Private Well Monitoring:

The spill occurred in an area served by several private wells. Due to the proximity of these wells and uncertainty regarding their potential vulnerability, LCSD initiated precautionary water quality monitoring. LCSD Staff assisted Environmental Health with Well Sampling and setting up contractors to begin sanitizing wells in the affected area.

Sampling of nearby private wells began the day following containment of the spill and has continued on a regular basis since that time. The monitoring program

was implemented to evaluate any potential impacts to groundwater quality a ensure the protection of nearby water supplies.

Well water samples were collected and analyzed to assess potential contamination associated with the spill event. Monitoring has continued as part of the District's/OES ongoing response and oversight efforts.

Environmental Health stated that no well-sampling data from before the spill was available. According to Environmental Health, many of these wells were agricultural wells, or were old and in bad condition. When the Sheriff and City of Clearlake took over the incident command, they hired a Hydrogeologist to look at the aquifer, but LCSD does not have access to that data.

i) *Waterway Protections and Sampling*

Lake County Environmental Health is the responsible entity for closing or restricting use of affected waterways. Environmental Health restricted public access as discussed in LCSD's initial report.

Because the event did not result in more than 50,000 gallons reaching a surface waterway (see Attachment E at pg. 5), no water quality sampling was required, and LCSD did not take samples, instead focusing on domestic well protection and alternative water supplies for local residents.

The Water Resources Department sampled various creek locations including sample points on Pond Rd, Pamela Lane, and Old Highway 53. Samples began on 1/28/26 and the last sample was taken 3/25/26, when sampling stopped due to the locations drying up.

Event Summary:

LCSD responded immediately upon notice and implemented extensive containment, recovery, repair, and cleanup measures to minimize impacts to the surrounding community and environment.

Throughout the duration of the event, staff worked continuously from Sunday morning through Monday evening, utilizing vacuum and pumper trucks to actively recover sewage and minimizing any potential environmental impacts.

The failed section of pipeline was bypassed, timely removed, and replaced with properly installed pipe and couplers, restoring the integrity of the force main.

Monitoring and precautionary measures were implemented to protect nearby residents, water supplies, and waterways.

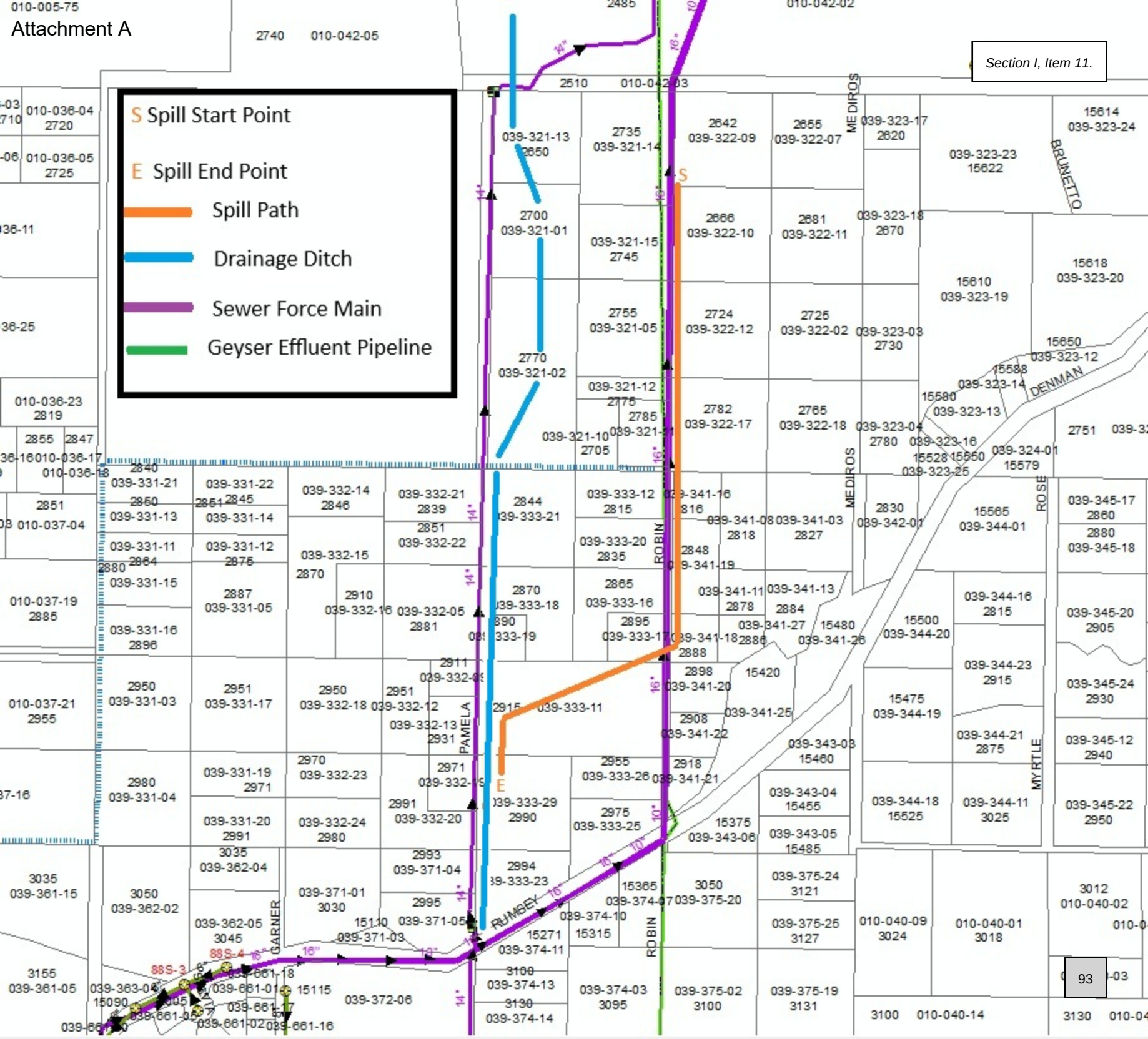
LCSD will continue to incorporate the repaired location as well as other areas of prior repair into ongoing inspection and maintenance activities to help prevent similar incidents in the future.

I certify under penalty of perjury under the laws of the State of California that the electronically submitted information was prepared under my direction or supervision. Based on my inquiry of the person(s) directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete, and complies with the Statewide Sanitary Sewer Systems General Order. I am aware that there are significant penalties for submitting false information.

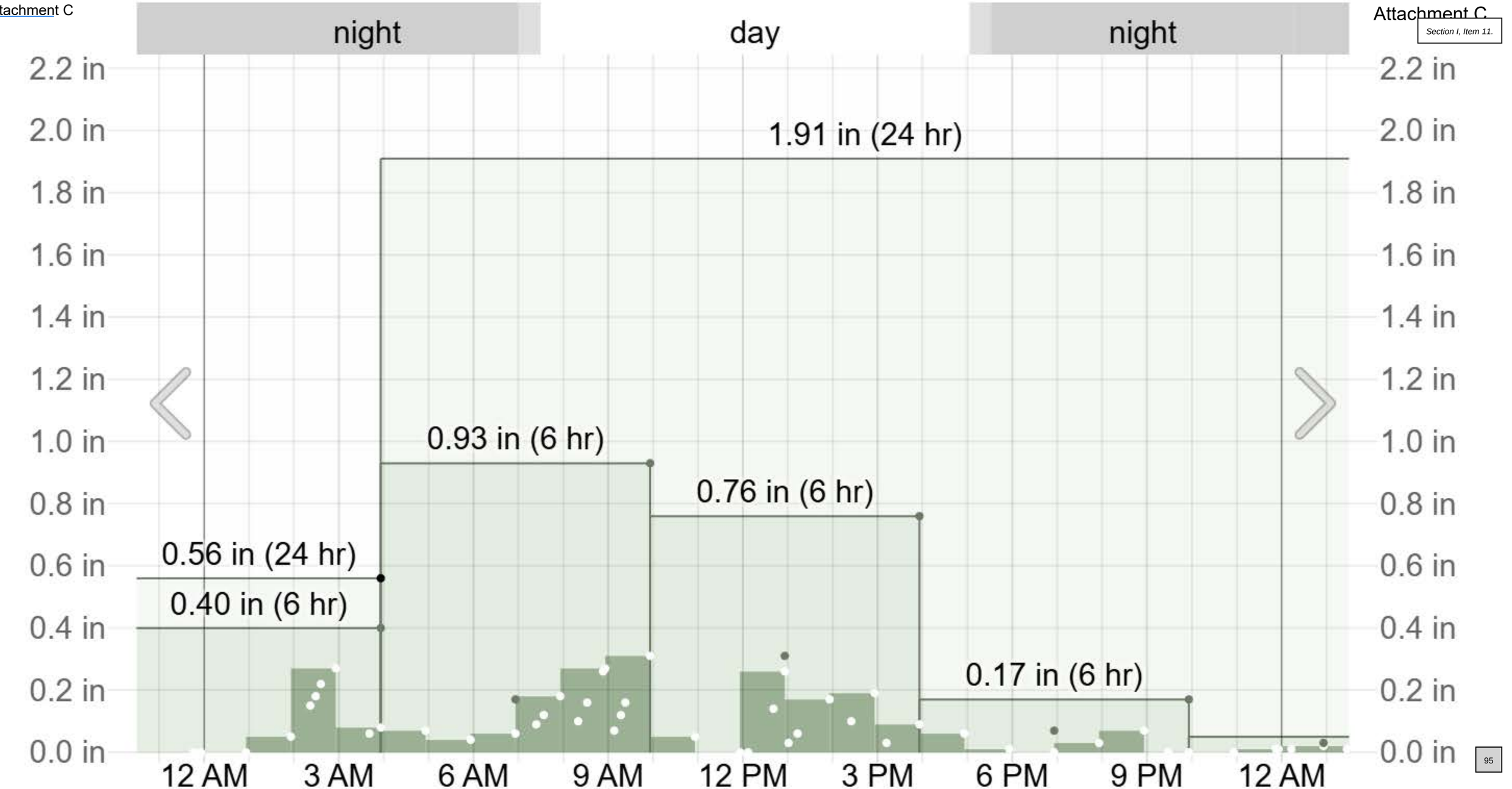
Sincerely,

Lori Baca
Utility Systems Compliance Coordinator
Lake County Special Districts

Attachment A



Attachment C



Attachment D

Failure Point

Up close view of failed pipe

Robin Lane Spill Volume Calculations

(Attachment E)

Table of Contents

Initial Spill Volume Calculation

Influent meter difference

1/9/26 @9:00 AM Meter read =1,852,095

1/13/26 @ 7:00 PM Meter read = 1,856,438

1,856,438 − 1,852,095 = 4,343,000 gallons (≈ 4.34 MG)

Time between meter reads
4.41 days

Average daily influent
4.34 MG ÷ 4.41 days = 1.016 MG/day

pump station flow
2.9 MG/day

Difference
2.9 − 1.016 = 1.884 MG/day

That is rounded to 1.8 MG/day

Then multiply that by the spill duration:
1.8 × 1.59 days ≈ 2.9 MG initial spill total

****This number was adjusted once all pumper truck invoices were received and processed see next page (Adjusted Spill Volume) ****

Adjusted Spill Volume

Initial Spill Volume Calculated from Page 1	2,900,000 gallons
Pumper Truck Volumes pumped from Lift Stations #1 & #2 (see table 1 below)	1,518,520 gallons
The Difference and Final Spill Total	1,381,480 gallons

Table 1 – Pumper Truck Volumes Pumped From Lift Stations #1 & #2

Pumper Truck Company Name	Invoice Number	Gallons Pumped from Lift Stations 1 & 2
Case	1583	75000
Frank's	66799	5800
Frank's	70426	7000
Frank's	70427	7000
Frank's	70504	10920
Action	541218	185000
Action	541219	248900
Action	541220	93600
Action	541242	0
Action	541243	0
Coleman	3321	24000
Coleman	3320	18000
Coleman	1052	250000
North Bay & East Bay Rest Services/All Stars	271606	516300
Argonaut	4768	58000
Roto-Rooter	78442	18000
Roto-Rooter	78457	1000
Total		**1518520**

Volume Recovered from Surface Areas

Pumper Truck volumes recovered from surface areas on Robin Ln and Pamela Ln and returned to Sanitary Sewer System (includes roads, driveways, fields, failed septic systems and surface water ponding from recent rain event) totaled 1,771,300 gallons (see table 2 below)

Table 2 – Pumper Truck Volume Recovered From Surface Areas

Name	Invoice	Gallons	
Franks		70522	30000
LJ Construction		62648	43200
Action		541250	6000
LC Pumpers		2757	20000
Perkins		11226	25000
Roto Rooter		78441	15000
Roto Rooter		78456	3000
Roto Rooter		78481	15000
Roto Rooter		78443	12000
Roto Rooter		78458	10000
Roto Rooter		78464	2000
Roto Rooter		78478	2000
Roto Rooter		78459	2500
Roto Rooter		78493	300
Roto Rooter		78492	500
Roto Rooter		78502	500
Roto Rooter		78513	800
Roto Rooter		78515	2000
Franks		70322	10000
Franks		70521	27500
Action		541243	9800
Action		541242	13000
Action		541252	2600
Action		541248	11800
Action		541218	202700
Action		541219	222000
Action		541220	158600
NW Inhouse	9 loads (500 gallon tank)		4500
SE Inhouse	20 loads (1200 gallon tank)		24000
KV Inhouse	60 loads (1000 gallon tank)		60000
WIPF		16220	650000
North Bay & East Bay Rest Services/All Stars		271606	185000
	Total Recovered		**1771300**

Drainage Ditch Spill Volume Calculation

Sunday 1/11/26

Approximated volume from staff on site from 2:30-3:30 PM that flow was 5 gpm
5 gpm x 60 minutes = **300 gallons**

Monday 1/12/26

Approximated volume from staff on site from 6:00-8:00 PM that flow was 30 gpm
30 gpm x 120 minutes =**3600 gallons**

Sunday flows	300
Monday flows	3600
Total	3900 gallons

Soil Removal/Replacement Volumes

2895 Robin Lane

150’ L X 50’ W X 12” D

Total soil removed and replaced 277.78 yards

2735 Robin Lane

150’ L X 120’ W X 6” D = 333.33 yards

80’ L X 50’ W X 6” D = 74.07 yards

Total Soil Removed and replaced 407.40 yards

Total volume of soil removed and replaced 685.18 yards

Sanitary Sewer Systems General Order

Back to Sanitary Sewer Systems Main Menu

Spill Event ID:	904788	**Spill Location Name:**	2735 Robin Lane, Clearlake
Sanitary Sewer System:	Southeast Regional Waste Disp Fac CS	**Agency:**	Lake Cnty
Spill Report Type:	Category 1 Spill	**Spill Report Status:**	Certified
Initial Draft Submitted On :	01/14/2026	**Certified On:**	01/26/2026
Spill Report Version Number:	1.2		

Spill General Info | Attachments | Certification

Draft Spill Report for Category 1 Spills

Due within three (3) business days of the Enrollee's knowledge of a Category 1 spill.

Save Work in Progress | Submit Draft

*1. Name of Enrollee contact person to respond to spill-specific questions:	Lori Baca
*1.a Telephone number of Enrollee contact person to respond to spill-specific questions:	(707) 263-0119
*2. Spill Location Name:	2735 Robin Lane, Clearlake 54 characters remaining.
*3. Date and time the Enrollee was notified of, or self-discovered, the spill:	1/11/2026 07:45
*4. Operator arrival time:	1/11/2026 07:49
*5. Estimated spill start date and time:	1/11/2026 07:30
6. Date and time the Enrollee notified the California Office of Emergency Services: *(Required if spill is 1,000 gallons or greater)*	1/11/2026 09:33
6.a Assigned control number: *(Required if spill is 1,000 gallons or greater)*	26-0181_
*7. Description, photographs, and GPS coordinates of the system location where the spill originated: If a single spill 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 spill appearance point explanation field: Submit photographs under the Attachments tab	On January 11, 2026, a local resident called in at approx. 7:30 AM reporting that water was starting to run down the street. Standby arrived on scene at 8:00 AM and determined that sewer was coming out of the 16" Sewer Force Main near 2735 Robin Lane in Clearlake. Standby immediately called for additional staff and staff brought out the first Vac Truck by 8:30 AM, while remaining staff began to work on getting the valve shut off. The spill began to travel down Robin Lane (a dirt road) and onto several properties between Robin Lane and Pamela Lane. The spill eventually reached a drainage ditch near 2990 Pamela Lane; however, crews were able to stop the flow into the drainage ditch by setting up waddles, sandbags staging Vac Trucks/Pumper Trucks on site. (see attached details) 215 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*7.a Latitude:	38.97553 decimal degrees [Show Map]
*7.b Longitude:	-122.6242 decimal degrees [Show Map]
*7.c Appearance points:	☐ Backflow Prevention Device ☐ Combined Sewer Drain Inlet. (Combined Collection System Only) ☐ Force Main ☐ Gravity Mainline ☐ Inside Building or Structure ☐ Lateral Clean Out (Private) ☐ Lateral Clean Out (Public) ☐ Lower Lateral (Private) ☐ Lower Lateral (Public)

7.d If other, describe:	1000 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
7.e Additional spill appearance point(s) explanation:	1000 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*8. Estimated total spill volume exiting the system:	1308620 Gallons
*9. Description and photographs of the extent of the spill and spill boundaries: Submit photographs under the Attachments tab	Please see attached photos/maps. 968 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*10 Did the spill reach a drainage conveyance system?:	Yes
10.a Description of the drainage conveyance system transporting the spill and photographs of the drainage conveyance system entry location(s): Submit photographs under the Attachments tab *(Required if answer for question 10 is 'Yes')*	Spill reached a drainage ditch near 2990 Pamela Lane. The Drainage ditch runs into Burns Valley Creek. 897 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
10.b Estimated spill volume fully recovered from the drainage conveyance system: *(Required if answer for question 10 is 'Yes')*	0 Gallons
10.c Estimated spill volume remaining within the drainage conveyance system: *(Required if answer for question 10 is 'Yes')*	0 Gallons
*11 Description and photographs of all discharge point(s) into the surface water: Submit photographs under the Attachments tab	The spill reached a dirt drainage ditch that runs along Pamela Lane and into Burns Valley Creek. The entry point and where staff was stationed with Vac Trucks/Pumper Trucks was near 2990 Pamela Lane and the sewer spilled over the embankment off and on during the higher surge times between pumper trucks. The spill time was short between pumper trucks and photos are attached. 623 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*12 Estimated spill volume that discharged to surface waters:	3900 Gallons
*13 Estimated total spill volume recovered: *(In your estimate, include the volume of the actual sewage spill recovered, but do not include the volume of washdown water or any other water.)*	1304720 Gallons
Save Work in Progress Submit Draft	
Note: Questions with "*" are required to be answered.	

Sanitary Sewer Systems General Order

Back to Sanitary Sewer Systems Main Menu

Spill Event ID:	904788	**Spill Location Name:**	2735 Robin Lane, Clearlake
Sanitary Sewer System:	Southeast Regional Waste Disp Fac CS	**Agency:**	Lake Cnty
Spill Report Type:	Category 1 Spill	**Spill Report Status:**	Certified
Initial Draft Submitted On :	01/14/2026	**Certified On:**	01/26/2026
Spill Report Version Number:	1.2		

Spill General Info | Attachments | Certification

Certified Spill Report for Category 1 Spills

Due within 15 calendar days of the spill end date.

Save Work in Progress | Ready to Certify | Update | Certify | **Amend Report**

Please Note:

- If you have entered all required information and have the report ready to certify, please click on the "Ready to Certify" button.,
- Reports cannot be certified unless the "Ready to Certify" button is clicked first.
- In order to certify the report, please click on the "Certify" button after populating the certification section.

*1. Spill Destination(s):	☐ Building or Structure ☐ Drainage Conveyance System ☐ Drainage Conveyance System that discharges to surface water ☐ Groundwater Infiltration Basin or Facility ☐ Other (specify below) ☐ Paved Surface ☐ Street/Curb and Gutter (2 3) ☐ Surface Water ☐ Unpaved Surface
1.a. If other, describe:	1000 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*1.b. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill:	The spill starting point was located near 2735 Robin Lane and traveled south down the dirt road and through a few properties between Robin Lane and Pamela Lane. See pictures attached 818 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*1.c. Coordinates available? *(Please provide at least one set of Lat and Long if your answer is 'Yes')*	Yes
* 1.d. Lattitude: *(Required if answer for question 1.c. Coordinates available is 'Yes')*	38.97552 decimal degrees [Show Map]
* 1.e. Longitude: *(Required if answer for question 1.c. Coordinates available is 'Yes')*	-122.62421 decimal degrees [Show Map]
1.f. Lattitude:	38.97092 decimal degrees [Show Map]
1.g. Longitude:	-122.62429 decimal degrees [Show Map]
1.h. Lattitude:	38.97092 decimal degrees [Show Map]

1.i. Longitude:	-122.62498 decimal degrees **[Show Map]**
1.j. Lattitude:	38.97005 decimal degrees **[Show Map]**
1.k. Longitude:	-122.62647 decimal degrees **[Show Map]**
*2. Spill end date and time:	1/12/2026 21:55
*3. Description of how the spill volume estimations were calculated, including at a minimum: The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information, used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered):	Staff took the last known influent meter read from Friday, January 9, 2026, and then another read from after the spill was stopped and then calculated the daily average. Once they found the average the staff then multiplied that by the duration of the spill. The original reported (draft) spill volume number was 2.9 MGD, however, that did not take into consideration the number of gallons pumped directly out of LS #1 and #2 by Pumper Trucks from 1/11/26-1/12/26 which has reduced the total spill volume down to 1.3 million. In order to accurately account for the number of gallons pumped from LS#1 and #2, we had to gather all Pumper Truck Invoices and track the locations and gallons pumped. We have now also calculated the number of gallons the pumper trucks sucked up off the surface area of the spill for recovery, as well as the contaminated soil removal. 137 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*3.a Description of the methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time:	The spill start time was recorded at approx. 7:30 AM 1/11/2026 according to the local resident caller. The 16" valve was repaired, and the valve was turned off at approx. 9:41 PM on 1/12/2026 and the flow was recorded stopped at the break point location at approx. 9:55 PM 1/12/2026. See pictures attached 695 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*4. Spill cause(s):	☐ Debris-Wipes/Non-disposables ☐ Fats, Oil and Grease (FOG) ☐ Flow Exceeded Capacity (Separate Collection System Only) ☐ Inappropriate Discharge to Collection System ☐ Natural Disaster (specify below) ☐ Operator Error (specify below) ☐ Other (specify below) ☐ Pipe Structural Problem/Failure - Controls ☐ Pipe Structural Problem/Failure - Installation
4.a If other, describe:	A repair to the 16-inch FM that was done in 2003 failed, which caused the initial spill. The 16-inch valve seized when staff was turning it off to stop the spill, which caused the extended spill duration. 796 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*5. System failure location:	☐ Air Relief Valve (ARV)/ Blow-Off Valve (BOV) ☐ Force Main ☐ Gravity Mainline ☐ Lower Lateral ☐ Manhole ☐ Other (specify below) ☐ Pump Station - Controls ☐ Pump Station - Mechanical ☐ Pump Station - Power
5.a If other, describe:	1000 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)

*6. Description of the pipe material at the failure location:	Concrete Copper Cross-Linked Polyethylene (PEX) Ductile Iron Fiberglass Galvanized Steel Other (specify below) Polyvinyl Chloride (PVC)
6.a. If other, describe:	1000 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*6.b. Estimated age of pipe material, at the failure location:	23 Years
*7. Description of the impact of the spill:	The spill impacted multiple properties along Robin Lane and Pamela Lane in Clearlake. The spill reached a drainage ditch that runs along Pamela Lane that runs into Burns Valley Creek. The spill affected several private drinking wells in the area of Robin Lane and Pamela Lane and the local Public Health Department as well as Special Districts are mitigating the effects of the spill regarding the private wells in the area. 575 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*8. Was the spill associated with a storm event?	No
*9. Spill response activities:	Cleaned Up (specify below) Contained All or Portion of Spill Mitigated Effects of Spill (specify below) Other (specify below) Other Enforcement Agency Notified Property Owner Notified Restored Flow Returned All Spill to Sanitary Sewer System Returned Portion of Spill to Sanitary Sewer System
9.a. If other, describe:	Special Districts has provided multiple resources to the affected residents including several pallets of water which has been provided to residents door to door by our staff, a Potable Water Station, Shower Trailer with 10 shower stalls, Laundry Service, Water delivery for Livestock, Potable Water Delivery to existing water tanks, and additional resources such as Red Cross and Catholic Charities has made donations and have provided additional resources as well. 534 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*9.b. Description of spill response activities including description of immediate spill containment and cleanup efforts:	Our staff immediately responded with our VAC Truck and called in ALL STAFF to assist. Our staff set up waddles and sandbag barriers in many locations to contain sewage from getting into driveways and properties and the drainage ditch. Staff called the outlying service areas who also responded with their Vac Trucks (three total) and ten pumper truck companies were called in immediately, each bringing several trucks to pump sewage out of puddles in the road and off the properties where the sewage was ponding on Robin Lane and Pamela Lane. Our staff relocated livestock and assisted residents with relocating to hotels if needed (elderly or disabled). Our Staff assisted Environmental Health with Well Sampling and setting up contractors to begin sanitizing wells in the affected area. Special Districts is still providing resources to the residents in the area such as Laundry Service, Potable Water Station, Shower Trailers and providing additional resources as needed. 24 characters remaining.

	(Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*10 Spill corrective action:	☐ Added Sewer to Preventive Maintenance Program ☐ Adjusted Schedule/Method of Preventive Maintenance ☐ Enforcement action against Fats, Oil, and Grease (FOG) source ☐ Inspected Sewer Using CCTV to Determine Cause ☐ Other (specify below) ☐ Plan Rehabilitation or Replacement of Sewer ☐ Post Spill CCTV ☐ Repaired Facilities or Replaced Defect
10.a If other, describe:	We are currently seeking funding to upgrade the Headworks and installing additional safeguards to the system. 890 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*10.b Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps:	N/A 997 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*10.c Schedule of major milestones:	N/A 997 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*11 Spill response completion date:	1/26/2026 17:21
*12 Detailed narrative of investigation and investigation findings of cause of spill:	The spill cause was determined to be a break in a previous repair location that was done in 2003. The continued duration of the spill was caused by a seized valve. Pictures are attached 814 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*13 Is the Enrollee conducting an ongoing investigation?	No
13.a Reasons for an ongoing investigation: *(Required if answer for question 13 is 'Yes')*	1000 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
13.b Expected date of completion of investigation: *(Required if answer for question 13 is 'Yes')*	
*14 Name of receiving water body(s):	Burns Valley Creek
*14.a Type of receiving water body(s):	☐ Estuary ☐ Lake ☐ Ocean ☐ Other (specify below) ☐ Reservoir ☐ River ☐ Slough ☐ Stream/Creek ☐ Vernal Pool

14.b If other, describe:	1000 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*15 Description of the water body(s):	The sewage entered the dirt drainage ditch that runs along Pamela Lane, entry point was near 2990 Pamela Lane. The drainage ditch was currently running with rainwater/storm water runoff and runs into Burns Valley Creek. 781 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*15.a Observed impacts on aquatic life:	N/A 997 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*15.b Public access impact:	☐ Other (specify below) ☐ Public Closure ☐ Restricted Public Access ☐ Temporary Restricted Use
15.c If other, describe:	1000 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
*15.d Responsible entity for closing/restricting use of water body:	Environmental Health
*15.e Number of days closed/restricted as a result of the spill:	15 Days
*16 Was the spill located within 1,000 feet of a municipal surface water intake?	No
*17 Were water quality samples collected?	No
17.a Identify sample locations: *(Required if answer for question 17 is 'Yes')*	1000 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
17.b Identify parameters the water quality samples were analyzed for: *(Required if answer for question 17 is 'Yes')*	1000 characters remaining. (Attach document if description is greater than 1000 characters, enter "See Attachment" into the box)
Save Work in Progress Ready to Certify Update	
Note: Questions with "*" are required to be answered.	

Certification

☐ I certify under penalty of perjury under the laws of the State of California that the electronically submitted information was prepared under my direction or supervision. Based on my inquiry of the person(s) directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete, and complies with the Statewide Sanitary Sewer Systems General Order. I am aware that there are significant penalties for submitting false information.

Certifier Name: *	Lori Baca	Title: *	Utility Systems Compliance Coordina

Certification			
Certifier Initials: *	LB	Certification Date:	01/26/2026
Certify			

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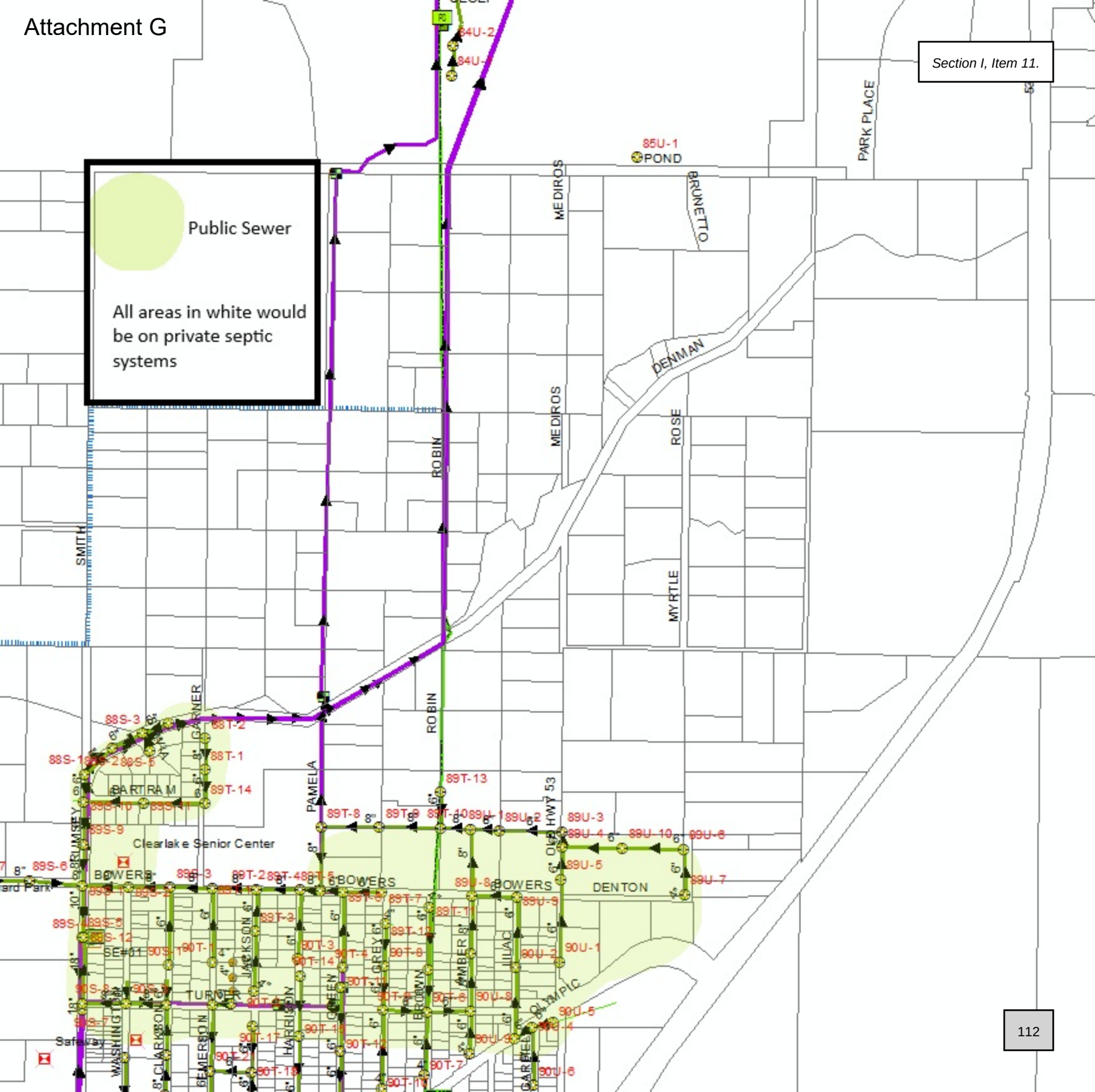

LAKE LAFCO

MUNICIPAL SERVICE REVIEW

FOR SERVICES PROVIDED BY THE

LAKE COUNTY SANITATION DISTRICT (LACOSAN)

Adopted
NOVEMBER 17, 2010
LAFCo Resolution 2010-0012

LAKE LAFCO

Table of Contents

1 INTRODUCTION

This report is a Municipal Service Review of wastewater collection and treatment services provided by the Lake County Sanitation District (LACOSAN). This Municipal Service Review was conducted in accordance with the State of California LAFCO Municipal Service Review Guidelines, Section 56430 of the California Government Code, and Lake LAFCO Policies and Procedures.

The study area includes most of the area served by LACOSAN and excludes Clearlake Oaks Water District (CLOWD), the Kelseyville County Waterworks District #3, City of Lakeport and Hidden Valley Lakes because these areas have been reviewed separately. LACOSAN serves approximately 12,000 customers and operates wastewater treatment systems at three locations in Lake County. These include the following:

1) Northwest Regional Wastewater system serving the following:
   A. Kono Tayee
   B. Lucerne
   C. Nice
   D. North Lakeport
   E. Paradise Valley
   F. Upper Lake
2) Southeast Regional Wastewater system serving Clearlake and Lower Lake
3) Middletown system

1.1 LAFCO's Responsibilities

Local Agency Formation Commissions are quasi-legislative local agencies created in 1963 to assist the State in encouraging the orderly development and formation of local agencies. The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code §56000 et seq.) is the statutory authority for the preparation of an MSR, and periodic updates of the Sphere of Influence of each local agency. The Governor's Office of Planning and Research has issued Guidelines for the preparation of an MSR. This MSR adheres to the procedures set forth in the MSR Guidelines.

A Sphere of Influence is a plan for the probable physical boundaries and service area of a local agency, as determined by the affected Local Agency Formation Commission (Government Code §56076). Government Code §56425(f) requires that each Sphere of Influence be updated as necessary, not less than every five years, and §56430 provides that a Municipal Service Review shall be conducted in advance of the Sphere of Influence update.

1.2 Municipal Service Review Requirements

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 as amended by AB1744 and regulations call for a review of the municipal services provided in the county or other appropriate area designated by the LAFCO.

The LAFCO is required, as part of the MSR, to prepare a written statement of findings of its determinations with respect to each of the following:

1. Growth and Population
2. Capacity and Infrastructure
3. Financial Ability
4. Shared Facilities
5. Government Structure and Accountability

1.3 Lake LAFCO Policies and Procedures Related to Municipal Services

The Lake LAFCO adopted policies and procedures related to municipal services on March 20, 2002. There were amended by action of the Lake LAFCO on July 16, 2003 and November 28, 2007.

1.4 Preparation of the MSR

Research for this Municipal Service Review (MSR) was conducted over a period of several years and updated in 2010. This MSR is intended to support preparation and update of Spheres of Influence, in accordance with the provisions of the Cortese-Knox-Hertzberg Act. The objective of this Municipal Service Review (MSR) is to develop recommendations that will promote more efficient and higher quality service patterns; identify areas for service improvement; and assess the adequacy of service provision as it relates to determination of appropriate sphere boundaries.

While LAFCO prepared the MSR document, LAFCO did not engage the services of experts in engineering, wastewater treatment, hydrology and other specialists in related fields; but relied upon published reports and Lake County staff for information. Therefore, this MSR reflects LAFCO's recommendations, based on available information during the research period and provided by Lake County staff to assist in its determinations related to promoting more efficient and higher quality service patterns; identifying areas for service improvement; and assessing the adequacy of service provision for each wastewater treatment area.

LACOSAN is managed and staffed by the Lake County Special Districts Administration (SDA). The SDA has conducted various studies of LACOSAN with the help of consultants. This MSR includes relevant information from the various reports. Since the reports were prepared at different times there may be occasional differences in data. The most recent report is the Foresight Consulting "Water and Sewer Rate Study Report" which will be cited extensively. Tables from the Foresight Study are included in Appendix A at the end of this report.

1.5 Description of Public Participation Process

The LAFCO proceedings are subject to the provisions California's open meeting law, the Ralph M. Brown Act (Government Code Sections 54950 et seq.) The Brown Act requires advance posting of meeting agendas and contains various other provisions designed to ensure that the public has adequate access to information regarding the proceedings of public boards and commissions. Lake LAFCO complies with the requirements of the Brown Act.

The State MSR Guidelines provide that all LAFCOs should encourage and provide multiple public participation opportunities in the municipal service review process. Lake LAFCO has discussed and considered the MSR process in open session, and has adopted a schedule for completing the various municipal service reviews and sphere of influence updates for Lake County. Each municipal service review will be prepared as a draft, and will be subject to public and agency comment prior to final consideration by the Lake LAFCO.

1.6 California Environmental Quality Act (CEQA)

The Municipal Service Review is a planning study that will be considered by Lake LAFCO in connection with subsequent proceedings regarding the Lake County Sanitation District and the Spheres of Influence. The Sphere of Influence review or update that will follow has not been approved or adopted by LAFCO. This MSR is funded in the Lake LAFCO's 2010-2011 Budget. This MSR includes an analysis, to the extent required by Section 15262 of the CEQA Guidelines, of the environmental factors that may be affected by the Municipal Service Review process, but will not include the preparation of an environmental review document.

2 SERVICE AREA SETTING

2.1 Regional Setting--Lake County

Lake County is located in the north central portion of California, north of the San Francisco Bay Area. It takes its name from Clear Lake, the dominant geographic feature in the County. As of 2000 the population was 58,309 including 23,974 households, and 15,367 families; this increased to a population of 64,053 with 34,645 housing units on July 1, 2010. The County seat is Lakeport. Lake County was formed in 1861 from parts of Napa and Mendocino counties. The County has a total area of 1,329 square miles, including 72 square miles (5.38%) of water.

The most common wastewater treatment methods used in Lake County include aerated lagoon and facultative (bacterial) systems. Some of the County's treatment plants have been significantly upgraded over the past ten years to accommodate larger flows and maintain secondary treatment standards consistently. Other important issues in the Lake County area concerning wastewater disposal include winery waste disposal and septage disposal from septic tanks.

2.2 Full Circle Project

2.2.1 Full Circle Project Background

The Full Circle Project in Lake County is a unique public/private partnership of local, State, Federal and corporate stakeholders and has developed a wastewater-to-electricity system at The Geysers. Wastewater reuse is a Special Districts initiative to recycle treated effluent for creation of wildlife habitat, irrigation of agricultural lands, and generation of geothermal power. Special Districts injection of effluent at the Geysers for geothermal steam production and power generation is the first of its kind in the world. The agency's goal is to maximize the energy, environmental, and economic benefits that wastewater reuse can achieve for Lake County.[1]

The Full Circle Project materialized because of high growth in Lake County that strained public infrastructure and services, including County-operated wastewater treatment systems. In the 1980s, the Lake County Sanitation District (LACOSAN) found its wastewater treatment systems deficient in terms of both treatment quality and disposal capacity.

The State ordered LACOSAN to upgrade its treatment process and find a means of disposing of larger quantities of effluent. LACOSAN spent several years evaluating alternative treatment and disposal options, including agricultural irrigation, created wetlands, and ultimately geothermal injection.

Once the project concept emerged, a group of key stakeholders convened to investigate its feasibility and pursue project development. The core group included LACOSAN, the Northern California Power Agency (NCPA), Calpine Corporation, Unocal Corporation, and Pacific Gas & Electric Company (PG&E).

[1] County of Lake, Special Districts Department Website August 2010.

2.2.2 Full Circle Project Construction

At the heart of the wastewater reuse system is a 50-mile pipeline that collects effluent from ten communities for injection in the Geysers geothermal steamfield. The first phase of the recycling pipeline was completed in 1997 between the Southeast Regional and Middletown treatment plants and the Geysers; the first segment of the Phase 2 pipeline was completed in 1999 with connection of the Clearlake Oaks treatment plant to the system; and the remainder of the Phase 2 pipeline to the Northwest Regional treatment plant was completed in 2003.

The system's first phase delivers an average of 5,400 gpm to geothermal injection wells operated by the Northern California Power Agency (NCPA) and Calpine Corporation. These industry partners have achieved a 70 MW increase in generating capacity since Phase 1 operations began. Phase 2 has increased effluent injection volume by approximately 20% in normal weather years, and by as much as 150% in drought years.

The existing project consists of a 53-mile, 20-inch (and some 16-inch sections such as the 24.75-mile section from the Northwest Regional Treatment Plant [NWRTP] to the Southeast Regional Treatment Plant [SERTP]) diameter pipeline that carries 7.8 million gallons per day (approximately 2.8 billion gallons annually) of treated wastewater effluent and Clear Lake make-up water to The Geysers for injection at existing wells operated by Northern California Power Agency and Calpine.

To move the treated effluent and supplementary lake water, the pipeline uses eight pump stations totaling 7,370 horsepower, including a 1,600 foot final lift from the Bear Canyon Road entrance up to the injection area in the southeast Geysers. The project creates up to 95 MW of generating capacity at six existing power plants operated by NCPA (Northern California Power Agency) and PG&E, or as much as 625,0000 MWh annually.

Phase I of the project's total construction cost is $45 million, including $8 million in wastewater treatment plant improvements. Construction costs are being shared by the core group of participants, known as the Joint Operating Committee (JOC), with additional funding from the California Energy Commission, California Water Resources Control Board, U.S. Department of Energy, U.S. Department of Commerce, U.S. Department of the Interior, and the U.S. Environmental Protection Agency.

For Phase I, approximately 40% of the construction costs are industry-funded, 20% are County funded, and the remaining 40% is divided equally between economic development and energy resource funds from the Federal and State agencies. Additionally, the industry participants are investing several million dollars in secondary pipelines terminus to injection wells in the steamfield.

2.2.3 Full Circle Project Operation

The project's annual operating costs are approximately $4 million. The JOC members have signed a 25-year operating agreement wherein LACOSAN will operate the pipeline as far as the Middletown area, after which it will be industry-operated to its terminus in the steamfield. Phase I initiated operations in October 1997. Phase 2 (Basin 2000) initiated operations 2001.

LACOSAN pays an annual operation and maintenance (O&M) cost share equivalent to its normal disposal costs, with the industry participants paying the remaining O&M costs based on the quantity of effluent they each receive at their wellheads.

2.3 Local Setting

This Municipal Service Review covers all of the areas served by the Lake County Sanitation District. Although there are multiple agencies providing wastewater collection and treatment services throughout Lake County, many rural areas throughout the County are currently not served by a sanitary sewer system and rely on private or community septic systems.

Notwithstanding the ability to obtain an on-site wastewater disposal permit, development standards in the Lake County Zoning Code for a Single-Family Residential (R-1) Zoning District require the size of a new parcel of land to contain 15,000 square feet provided public water is provided. If no public water and no public sewer are provided, the minimum lot size requirement increases to 40,000 square feet.

Many areas throughout Lake County contain soil types or conditions that are not conducive to on-site septic disposal systems such as those areas with soils that prevent adequate filtration. All special districts providing wastewater services currently provide both wastewater treatment and collection services within the Lake County area.

These wastewater collection and treatment providers include the following:

1. City of Lakeport Municipal Sewer District (CLMSD) provides collection and treatment of wastewater collected in and around the City of Lakeport. The collection system that serves Assessment District 9-1 (Lands End, Holiday Cove, and Reeves Point), as well as Assessment District 9-3 (South Lakeport), is maintained by LACOSAN. However, the effluent is treated and disposed of at the City of Lakeport's Municipal Wastewater Treatment Facility.

2. Lake County Sanitation District (LACOSAN) provides wastewater collection treatment and disposal for areas north and northwest of the City of Lakeport, Upper Lake, Nice, Lucerne, Kono Tayee, Paradise Valley, Clearlake, Lower Lake, and Middletown.

3. Hidden Valley Lake Community Services District (HVLCSD) provides wastewater treatment and collection service for the community of Hidden Valley Lakes.

4. Clearlake Oaks County Water District (CLOWD) provides wastewater treatment and collection for the Clearlake Oaks area. This District is examined in a separate Municipal Service Review. Treated effluent from this plant is recycled through the LACOSAN Wastewater reuse system. The Clearlake Oaks Wastewater Treatment Plant and Pump Station have a normal flow of 275 to 500 gpm. Pump station No. 2 has three 250 horsepower vertical turbine pumps, an electrical equipment building and a surge tank.

The maximum daily discharge and monthly average dry weather discharge design capacities are 2.1 and 0.5 million gallons per day (mgd), respectively. Wastewater flows for the CLOWD range from 0.200 mgd ADWF to 1.0 mgd AWWF with peak wet weather flows up to 0.813 mgd.

The treatment plant experiences excessive flows during wet weather due to Infill and Infiltration (I&I) associated with an aging collection system. Treated effluent is pumped to the LACOSAN southeast reservoir and then pumped by LACOSAN 20 miles southwest to the Geysers for injection into the groundwater.

5. Kelseyville County Waterworks District #3 (KCWD) provides wastewater treatment and collection for the Corinthian Bay, Kelseyville, and the Clear Lake State Park. This District is examined in a separate Municipal Service Review.

Wastewater treated at LACOSAN's Northwest, Southeast and Middletown Wastewater Treatment Facilities is delivered to the Southeast Geysers Injection area located in Lake and Sonoma Counties. LACOSAN and CLMSD have an agreement for wastewater treatment in which wastewater treated in North Lakeport is transported to LACOSAN's Northwest Treatment Plant and wastewater treated South of Lakeport is treated in the CLMSD treatment facility south of Lakeport.

3 HISTORY OF LACOSAN

3.1 Lake County Sanitation District Formation

The Lake County Sanitation District (LACOSAN) is headquartered in Lakeport at the Lake County Special Districts Administration. Special Districts Administration is a County department that provides water and wastewater collection and treatment services including nine County Service Areas and the Kelseyville County Waterworks District #3. The Lake County Board of Supervisors oversees the nine County Service Areas and also sits as the Board of Directors for LACOSAN and the Kelseyville County Waterworks District #3.

The District with the largest budget and most assets is LACOSAN. The Special Districts Administration is able to share resources with other County departments for a variety of administrative, legal and financial services. The Special Districts Administration has 40 position allocations including administrative, financial, supervisory and technical staff.

The Lake County Sanitation District (LACOSAN) was formed by Resolution 63-196 by the Lake County Board of Supervisors on December 9, 1963, a few weeks before Assembly Bill 1662 (Knox), the legislation that originally created LAFCO, became law. Prior to the passage of Resolution 63-196, the Lake County Board of Supervisors passed Resolution 63-175 (November 4, 1963), a resolution of intention to form LACOSAN, pursuant to the provisions of 4700 et seq. of the Health and Safety Code known as a "County Sanitary District."

The original District excluded all the incorporated areas within Lake County at the time of formation. Lakeport (the only incorporated area at that time) was excluded from territory within LACOSAN. Lakeport and surrounding areas were detached in 1971 and 1973 (Resolution 71-161 and 73-148). Since no incorporated territory or territory within other sanitary districts was included in LACOSAN, the Board of Supervisors was established as its Board of Directors.

3.2 Lake County Sanitation District Changes

Since its inception, the LACOSAN service area has decreased in size yet has experienced increased development and the establishment of Assessment Districts. In 1972, LAFCO approved Resolution 72-1 and the LACOSAN Board of Directors passed Resolution 72-53, ordering the detachment of the Clearlake Oaks County Water District territory consisting of 2,325 acres.

In 1979 LAFCO approved Resolutions 7-79 and 8-79 approving the annexation of 11.7 acres to the CLMSD and detaching 11.7 acres from LACOSAN known as the Jeffers-Ruzicka detachment. Also in 1979 LAFCO approved the detachment of 18,975 square feet of territory from LACOSAN known as the Harker Detachment.

In 1986 LAFCO approved Resolution 14-84 and the Board of Directors of LACOSAN approved a detachment of 1,874 acres of agricultural lands from LACOSAN in Big Valley known as the "Big Valley 'AG' Detachment."

In 1997 LAFCO approved Resolution 97-02 Approving a Reorganization between City of Lakeport Municipal Sewer District (CLMSD) and LACOSAN detaching 387.4 acres of territory located outside the City of Lakeport yet within CLMSD to LACOSAN. This reorganization included unincorporated territory north of the City of Lakeport. Over the years, multiple reorganizations have taken place in which unincorporated territory was detached from LACOSAN and annexed to the City of Lakeport and the CLMSD.

LAFCO approved the incorporation of the City of Clearlake in 1980. The LAFCO resolution ordering the incorporation did not include any detachment from LACOSAN. LAFCO Resolution 2-80, approving the incorporation of the City, determined that "the proposed incorporated City of Clearlake will not be successor to any special district presently providing municipal services." Land in the City of Clearlake was never detached from LACOSAN for that reason.

In 1983 the Lake County Board of Supervisors, acting as Conducting Authority, approved Resolution 83-350 forming the Hidden Valley Lake Community Services District for the "purposes of maintaining and constructing public improvements, namely sewer and water services within the boundaries of the District." The Hidden Valley Lake CSD remains within LACOSAN district territory, creating a conflict of Spheres of Influence.

4 DESCRIPTION OF EXISTING SERVICES

4.1 Treatment Plant Use

Average Dry Weather Flows (ADWF) and Average Wet Weather Flows (AWWF) in Million Gallons per Day (MGD) for LACOSAN's three treatment plants are as follows:

Facility: Northwest RWWTP

Total Connections:	4,670 (SFDs 5,984)[2]
Type:	Dual-powered, multi-cellular aerated lagoons
Peak WW Flow:	8.5 mgd
Northwest Region:	9,937 population[3]

Southeast RWWTP

Total Connections:	6,707 (SFDs 8,471)[4]
Type:	Dual-powered, multi-cellular aerated lagoons
Peak WW Flow:	6.1 mgd
Clearlake/Lower Lake:	15,226 population[5]

Facility: Middletown WWTP

Connections:	733 (SFDs 811)[6]
Type:	Facultative Pond with aeration
Peak WW Flow:	0.34 mgd
Middletown:	1,822 population[7]

This information is from the three Master Plans. Lake County rate ordinances are based on 210 gallons per day of wastewater generated per connection (Single Family Dwelling Equivalent, SFD) for the four treatment plants.[8] A planning figure based on the average of 210 GPD per SFD equivalent[9] will therefore be used as a basis for calculation in this report. LACOSAN completed Master Plans for each treatment plant in 2005. An interim master plan for the Southeast Regional Collection System was completed in 2009.

4.2 LACOSAN Personnel

LACOSAN operates its four regional wastewater treatment systems with approximately 40 employees. There is one Administrator position overseeing a Deputy Administrator and three utility area superintendents.[10] LACOSAN has all the personnel required to run a system of this size, and all personnel possess the necessary credentials to adequately run a wastewater collection and treatment system of this nature.

[2] Lake County Special Districts Administration, "Current Operations by Utility Area," 8/6/10.
[3] Lake County Special Districts Administration, "Current Operations by Utility Area," 8/6/10.
[4] Lake County Special Districts Administration, "Current Operations by Utility Area," 8/6/10.
[5] Lake County Special Districts Administration, "Current Operations by Utility Area," 8/6/10.
[6] Lake County Special Districts Administration, "Current Operations by Utility Area" 8/6/10.
[7] Lake County Special Districts Administration, "Current Operations by Utility Area", 8/6/10.
[8] Mark Dellinger, Special Districts Administrator, 230A Main Street, Lakeport, CA 95453, 2010.
[9] Mark Dellinger, Special Districts Administrator, 230A Main Street, Lakeport, CA 95453, 2010.
[10] Mark Dellinger, Special Districts Administrator, 230A Main Street, Lakeport, CA 95453, 2010.

4.3 Regulatory Setting

Federal, State and local regulations regarding water quality directly affect District policy regarding the level of service provided for wastewater collection. LACOSAN must comply with U.S. Environmental Protection Agency (EPA) regulations, as well as the requirements of California Water Code Section 13000 et seq., the Porter-Cologne Water Quality Control Act of 1969. This Act charges the State Water Resources Control Board with protecting the quality of all state waters for beneficial uses and enjoyment. In discharging this responsibility, the Central Valley Regional Water Quality Control Board has the authority to issue Waste Discharge Requirements in the region.

Because the District operates wastewater collection systems and treatment facilities, it is subject to Waste Discharge Requirements issued by the Central Valley Regional Water Quality Control Board and hazardous materials storage permits and Risk Management Plans required by the Lake County Department of Environmental Health.

The District also has Air Quality Permits issued by the Lake County Air Quality Management District. Temporary project-specific Streambed Alteration Permits are issued by the California State Department of Fish and Game. Temporary project-specific permits are issued by the U.S. Army Corps of Engineers.[11]

The District has received a Cleanup and Abatement Order and fines from the Regional Board. The most recent Notice of Violation was issued on March 7, 2010, primarily for spills in the Highlands Harbor/Meadowbrook Drive area of Clearlake.

On March 2, 2010, the Board of Directors of the Lake County Sanitation District adopted an Interim Ordinance No. 2918 establishing temporary restrictions upon connections to the Southeast Regional Wastewater System and on April 6, 2010, the District adopted Ordinance No. 2923, An Urgency Measure Adopting an Interim Ordinance Establishing Temporary Restrictions upon Connections to the Southeast Regional Wastewater System. The reasons for the Ordinance are that significant inflow problems have resulted in sewer spills, threatening public health and safety. The inflow problems may be caused by excessive rainfall and leaks in the system.[12]

The District is implementing several short term and long term actions to address this problem. A comprehensive smoke testing program was completed in early August 2010. Over 200,000 feet of gravity collection pipe was evaluated. A program to seal identified leaks is underway. The district is implementing a temporary pump station and pipeline project to prevent spills in the Highlands Harbor area. This will be in place prior to the winter of 2010.

The Collection System Master Plan prepared in 2009 identified a capital project to address the problem in a long term manner. It includes the expansion of an existing pump station (#4) and a 12-inch pipeline directly to the treatment plant. A proposed rate increase to capitalize this $5.5 million dollar project is currently before the ratepayers. If successful, this project will be constructed in 2011.

[11] Mark Dellinger, Special Districts Administrator, 230A Main Street, Lakeport, CA 95453, Ph: (707) 263-0119 F: (707) 263-3826, January 2008.
[12] Lake County Sanitation District, Ordinance No. 2923, An Urgency Measure Adopting an Interim Ordinance Establishing Temporary Restrictions upon Connections to the Southeast Regional Wastewater System April 6, 2010.

LACOSAN received a Cease and Desist (Order # R5-2003-0040) on the Northwest Regional Wastewater Treatment System on March 24, 2003 whereby the District's sewage collection system has historically experienced problems with inundation during periods of high groundwater or high Lake levels thereby causing a direct discharge of wastewater to Clear Lake.

Should spills occur in the collection or treatment system, the District is required to file a Spill Report with the Regional Board. District projects are also subject to the requirements of the California Environmental Quality Act (CEQA) and in some cases the National Environmental Policy Act (NEPA).

Below is a description of several problems that occurred in 2008:

Sewage Spill, Lake County Sanitation District Southeast Regional Wastewater Treatment System, Lake County
On 16 July 2008, the Lake County Sanitation District (Discharger) reported a raw sewage spill estimated at approximately 510 gallons. The spill occurred from an overflowing manhole located along Crawford Avenue and Old Highway 53 in Clearlake, and was contained to a dry creek bed. The spill resulted from a blockage in the sewer line and was caused by a combination of debris and grease within the sewer pipe downstream of the manhole. The Discharger is educating neighborhood residents located upstream of the sewer blockage on the proper handling and disposal of fats, oil, and grease. In addition, the Discharger is enforcing portions of the sewer use ordinance for the maintenance of the grease trap and installation of a backflow prevention device. On 13 August 2008, staff issued a Notice of Violation for the spill, requiring the Discharger to provide a written report showing that the grease traps and the backflow prevention device have been installed at the Elks Lodge, and that sewer maintenance is conducted on a routine basis. (GJC)

Sewage Spill, Lake County Sanitation District, Lake County
On 15 September 2008, the Lake County Sanitation District (Discharger) reported a spill estimated at approximately 1,750 gallons from the Geyser Effluent Pipeline. The spill entered a dry stream bed located along a stretch of pipeline approximately 1,000 feet north of the Harris Creek Tank. Following the spill, the Discharger shut down the flow to the pipeline and replaced a section of the leaking pipe. The pipeline has since been put back into service. Regional Water Quality Control Board, Lake County Environmental Health Department (LCEHD), and the Office of Emergency Services were notified following the spill. Regional Water Board staff is evaluating appropriate enforcement action. (GJC)

Wastewater Spill, Lake County Sanitation District, Lake County
On 1 October 2008, the Lake County Sanitation District reported a spill estimated at approximately 4,900 gallons from the Geyser Effluent Pipeline. The spill was located at Mackey Road and Robin Hill, north of the City of Lakeport. A leaking air release valve caused the spill. The spill was stopped by isolating and repairing the air release valve. The pipeline

has since been put back into service. Central Valley Water Board, Lake County Environmental Health Department, and the Office of Emergency Services were notified following the spill. Central Valley Water Board staff is requesting an update on the pipeline maintenance plan. (GJC)

4.4 Inflow and Infiltration (I&I)

LACOSAN wastewater collection facilities are designed to carry the peak flows that would be expected to occur over the lifetime of the facilities. Unwanted water from Inflow and Infiltration (I&I) produces greater than desired flow volumes, resulting in excessive demand on the collection system, higher energy usage and less than optimum efficiency.

LACOSAN has implemented a series of source detection programs and rehabilitation methods to control Inflow and Infiltration. These programs and methods include an aggressive inspection and repair program for manholes, inspection and repair of gravity lines, smoke testing, and flow measurement. Source detection programs include seasonally locating, isolating, and repairing source defects during the early morning hours or during storm events.

Pipeline rehabilitation methods include slip-lining, grout sealing, replacement of segments or total pipeline replacement, manhole grouting, and manhole replacement. Pipe bursting with slip lining has been used in several projects. Persistent problems in the Northwest Regional Wastewater Treatment system due to excessive I&I have led to the issuance of a Cease and Desist Order as discussed above.

4.5 Northwest Regional Wastewater Treatment Plant

4.5.1 Northwest Regional Wastewater Treatment Plant Background

The Northwest Region Wastewater Treatment Plant is located approximately four miles north of the City of Lakeport and west of State Route 29.

History of Northwest Regional Wastewater Treatment Plant

The Northwest (NW) wastewater collection system serves the communities of North Lakeport, Upper Lake, Nice, Lucerne, Kono Tayee and Paradise Valley. Many portions of the collection system were constructed 25-30 years ago when inspections were not as comprehensive as they are today. Due to the age of the collection system, the close proximity to the lake, and seasonal high lake levels, Inflow and Infiltration (I&I) is common, and contributes a large percentage to winter flows.

The high seasonal flows force lift stations to operate for extended periods of time and almost continuously during multi-day storm events. During these same periods, the District frequently hires emergency pumper trucks and crews to avoid or minimize reportable spills in compliance with regulatory requirements. Treated wastewater is recycled at the Geysers steamfield for electricity production.

Status of Northwest Regional Wastewater Treatment Plant

Many areas within the collection system were originally constructed 30 years ago for much smaller communities and typically before substantial development occurred. Several sections of collection systems within several Nice/Lucerne hillside neighborhoods have been cut off from access for routine collection system maintenance and cleaning by development. Expansion and growth have also resulted in capacity challenges (both collection and pumping) in several key locations within the NW system. The 12-month averaged increase (2008) in the NW customer base is 1.3%. In March of 2003, The Regional Water Quality Control Board issued a Cease and Desist Order for the NW system. The Order covers six requirements which must be implemented over a ten-year period. The District is working diligently to fully comply with that Order while continuing to serve all customers.

Outlook for Northwest Regional Wastewater Treatment Plant

The District is moving forward with aggressive I&I mitigation and Hydraulic Modeling for evaluating structure and capacity within the NW collection system. The model evaluates storage capacity and flow within the main sections of the trunk line serving the collection system. The model can be expanded into additional locations within the service area for evaluating impacts associated with new development. According to the Master Plan (December 2005), the service area had a potential capacity for 7,379 connections. All projects greater in size than 3 Single Family Dwelling Equivalents (SFDs) are required to utilize the NW model. The model identifies the areas within the collection system where infrastructure improvements are necessary to accommodate the development and capacity mitigation and costs.

Customer Statistics and Infrastructure for Northwest Regional Wastewater Treatment Plant

The Northwest Regional Wastewater Collection and Treatment System currently includes the following:

- *4,670 Connections (5,984 Single Family Dwelling (SFD) equivalents including about 800 Residential Unit Equivalents (RUEs) from the City of Lakeport (added in 2001).*
- *Over fifteen hundred manholes and 90 miles of pipe within the gravity collection system.*
- *23 lift stations and over 15 miles of force main piping conveying wastewater to the NW Treatment Plant.*

The Northwest Regional Wastewater Treatment Plant includes aerated lagoons serving 5,984 single-family dwelling units (SFD)[13] with an average annual flow of 1.66 to 4.1

[13] Lake County Sanitation District, http://www.co.lake.ca.us/Government/Directory/Special_Districts/Wastewater_Systems/Northwest_Regional_Wastewater_System.htm.

mgd. The treatment plant has a design capacity of 8.5 mgd wet weather flow. SFD equivalent flow is approximately 210 gallons per day. In 2010, this plant served a population of approximately 9,937 people[14] with 23 pump stations situated around the northern end of Clear Lake and an 800 acre-foot effluent storage reservoir.

4.5.2 Northwest Regional Wastewater Treatment Plant service to Lakeport

The North Lakeport area was added to the Northwest Regional Wastewater System under a service contract with the City of Lakeport in 1977. The City pays Northwest Regional Wastewater System for the operation, maintenance, and future upkeep of the sewer service.

The City of Lakeport provides the remainder of wastewater treatment and disposal services to residents within the City Limits south of 16th Street. Treated effluent from the NWRWTP reservoir, once used for pasture irrigation, is now piped to the Geysers for injection into the steamfields.

4.5.3 Northwest Regional Wastewater Treatment Plant Requirements

This treatment facility is regulated by CVRWQCB Order No. 5-011-111 and Monitoring Program both issued on May 11, 2001. This order prescribes requirements for secondary treatment of 2.0 million gallons per day (mgd) of domestic wastewater with discharge to an 865-acre-foot effluent storage reservoir. From the reservoir, effluent may be recycled through spray irrigation as a backup disposal method, discharged to a constructed wetland; under normal operations discharges are primarily removed by an effluent pipeline for delivery to the Southeast Geysers Pipeline.

Revised Waste Discharge Requirements (WDRs) were issued by the CVRWQCB to facilitate improved wastewater collection, treatment, and for additional water conveyance and recycling process through the implementation of the Full Circle Project. Documented overflows from the effluent storage reservoir during periods of above-average rainfall exceeded effluent limitations for water quality A Cease and Desist order (Order # R5-2003-0040) was issued by the CVRWQCB on March 14, 2003. Discharges from the storage reservoir no longer occur.

4.5.4 Northwest Regional Wastewater Treatment Plant Collection System

Wastewater is transported through a series of sanitary sewer main pipelines within subdivision streets, secondary outfall pipelines (large diameter pipelines), major outfalls (large diameter pipelines), and force mains (pressure pipelines associated with pump stations). These outfall pipelines convey wastewater to the Northwest Regional Wastewater Treatment Plant.

The collection system primarily serves residential customers. Small businesses and restaurants comprise a small percentage of total wastewater flow. The Northwest Regional Wastewater Treatment Plant does not service any heavy industrial customers. The system includes 23 pump stations, 110 miles of collection pipe, and 2,000 manholes. These facilities convey wastewater to the NWRTP.

[14] Lake County Special Districts Administration, “Current Operations by Utility Area”, 2010.

4.5.5 Northwest Regional Wastewater Treatment Plant Facility

The treatment process starts with the headworks, consisting of a bar screen, followed by three lagoon cells (Numbers 1, 2, and 3) completely mixed with surface aerators, two lagoon cells (Numbers 4 and 5) partially mixed with surface aerators, a chlorine contact pipeline, and the NWRWTP effluent reservoir.

The treatment facility of headworks, distribution boxes, lagoons weirs, and pipelines has a design peak hour flow (PHF) of 10.0 mgd. The limiting component for hydraulic capacity in the treatment system is the lagoons. Other design flows are 1.6 mgd average dry weather flow (ADWF), 5.6 mgd peak month flow (PMF) and 8.5 mgd peak day (or wet weather) flow (PDF).

The effluent from the NWRWTP effluent reservoir is conveyed to the Southeast Regional Wastewater Plant effluent reservoir where it combines with effluent from the SERWTP and the Clearlake Oaks WTP. The reservoir discharges to the Southeast Geysers Effluent Pipeline. This pipeline runs approximately 26 miles southwest of the SERWTP to convey effluent to injection wells in The Geysers steamfield.

4.5.6 Northwest Regional Wastewater Treatment Service Build-out

The Northwest Regional Wastewater Treatment Plant has a capacity of 9,534 connections, which is adequate to serve anticipated build-out of 9,031 connections. There were 4,670 connections on 2010.[15] The Northwest Regional Wastewater Treatment Plant serves six areas. The "Build-out Analysis" shows the following for these areas:

A. *Kono Tayee Wastewater Service*

The Kono Tayee Wastewater Service Area has 99 vacant acres with 148 vacant unserviced parcels. The zoning for this area would allow 249 future dwelling units with 543 future residents.[16] The total build-out connections for this area would be 377 compared with 126 existing connections.[17] August 2010 data shows 132 active residential connections, 1 commercial connection and 4 standby connections for a total of 132 connections serving 132 single-family dwelling equivalents.[18] In 2010 LACOSAN reported 132 connections serving a population of 277.[19]

[15] County Special Districts, 2010
[16] County Special Districts, "2010
[17] County Special Districts, 2010
[18] Lake County Special Districts Administration, "Current Operations by Utility Area 2010.
[19] Lake County Sanitation District, "Current Operations by Utility Area," 1/1/10.

B. Lucerne Wastewater Service

The Lucerne Wastewater Service Area has 87 vacant acres with 510 vacant unserviced parcels. The various zoning designations[20] for this area would allow 538 additional dwelling units with an additional population of 1,168.[21] The number of connections at total build-out would be 2,084 compared with 1,359 existing connections.[22] August 2010 data show that Lucerne has 1,823 active residential connections, 38 commercial connections, and 21 standby connections for 1,491 total connections serving 1,861 single-family dwelling equivalents.

C. Nice Wastewater Service

The Nice Area has 152 vacant acres zoned for development with 854 vacant unserviced parcels. This would allow 1,012 additional dwelling units and 2,228 additional residents. The number of connections at total build-out would be 2,344 compared to 1,203 existing connections.[23] August 2010 data show 1,671 active residential connections, 35 commercial connections, and 15 standby connections for a total of 1,671 connections or 1,706 single-family dwelling equivalents.[24]

D. North Lakeport Wastewater Service Area

The North Lakeport Wastewater Service area has 233 vacant acres zoned for development and 229 vacant parcels. This would allow 1,172 future dwelling units and 2,540 future residents. There would be 3,366 total wastewater connections at total build-out compared to 902 existing wastewater connections for this area.[25]

The area total shows 1,613 active residential equivalent connections, 23 commercial connections, and 23 standby connections for a total of 1,149 connections and 1,636 single-family dwelling equivalents in August 2010.[26]

E. Paradise Valley Wastewater Service Area

The Paradise Valley Wastewater Service Area is small compared to other service areas. This area has 7 vacant acres with 19 vacant parcels all zoned R-1 (Single-Family Residential). This zoning would allow 22 additional dwelling units and 43 additional residents. There is also a Planned Development (PD) area that would allow an additional 97 dwelling units with 189 residents. The number of connections at total build-out would be 109 compared to the existing 72 connections.[27]

F. Upper Lake Wastewater Service Area

The Upper Lake Wastewater Service Area has 23 vacant acres with 49 unserviced parcels. This would allow 105 additional dwelling units with and additional population of 270. The number of connections at total build-out would be 669 compared with 577

[20] The number of parcels allowed by zoning may be greater than the number that can actually be created by the parcel map or subdivision map process.
[21] County Special Districts, 2010
[22] County Special Districts, "2010
[23] County Special Districts, "2010
[24] Lake County Special Districts Administration, "Current Operations by Utility Area", August 6, 2010
[25] County Special Districts, 2010
[26] Lake County Special Districts Administration, "Current Operations by Utility Area", 2010
[27] County Special Districts, "Build-out Analysis of Lake County Water and Wastewater Systems" Prepared by Criterion Planners, www.crit.com, April 2006, p296-297.

existing connections in 2010, serving a population of 1,126.[28] August 2010 data show 556 active residential connections, 21 commercial connections, and 2 standby connections for a total of 461 connections and 577 single-family dwelling equivalents.[29]

4.6 Southeast Regional Treatment Plant

4.6.1 Southeast Regional Wastewater Treatment Plant Background

The Southeast Regional Treatment Plant is located approximately one mile north of the City of Clearlake. According to the Special Districts website[30] the following information is provided regarding the Southeast Regional Wastewater Treatment Plant:

History of Southeast Regional Wastewater Treatment Plant

> *The Southeast (SE) system collects and treats wastewater in the Clearlake area. The collection system extends from Pirates Cove to Lower Lake and includes the City of Clearlake. Portions of the collection system were constructed over 30 years ago when materials, construction techniques and inspections were not as advanced and comprehensive as they are today. Due to the proximity to the lake and seasonal high water table, a significant amount of groundwater intrusion occurs within the collection system during the winter. Seasonal high lake levels and winter rains also contribute to Inflow and Infiltration (I&I) which makes up a large percentage of winter flows. The increased flows in the winter requires the lift stations to operate more frequently, and almost continuously during multi-day storm events. During more intensive storm events, the District typically has to hire emergency pumper truck services to maintain collection system operations, and avoid or minimize reportable spill events. All treated wastewater is recycled at the Geysers.*

Customer Statistics and Infrastructure for Southeast Regional Wastewater Treatment Plant

> *The Southeast Regional Wastewater Collection and Treatment System currently includes the following:*
>
> - *6,707 service connections (8,471 Single Family Dwellings (SFDs) serving a population of 15,226 residents.*
> - *Over nineteen hundred manholes and over 90 miles of collection system piping within the collection system.*
> - *23 Lift Stations and over 10 miles of force main piping conveying wastewater flows to the SE Treatment Plant.*

[28]. Lake County Sanitation District, http://www.co.lake.ca.us/Government/Directory/Special_Districts/Wastewater_Systems/Northwest_Regional_Wastewater_System.htm.
[29] Lake County Special Districts Administration, "Current Operations by Utility Area", 10/18/2007
[30] Lake County Sanitation District, http://www.co.lake.ca.us/Government/Directory/Special_Districts/Wastewater_Systems/Northwest_Regional_Wastewater_System.htm

Status of Southeast Regional Wastewater Treatment Plant

> *Community growth is resulting in capacity challenges (both collection and pumping) in several key locations within the system. The 12-month averaged increase (2008) in the customer base in the SE service area is 2.4%, with the most construction occurring within the AD 1-6 area of the collection system, east of Highway 53. In February of 2005, the Regional Water Quality Control Board issued a Cleanup and Abatement Order for the SE system. On March 7, 2010 a Notice of Violation was issued primarily for spills in the Highlands Harbor/Meadowbrook areas. The District is working diligently to fully comply with that Order while continuing to serve all customers as previously discussed.*

Outlook for Southeast Regional Wastewater Treatment Plant

> *The District is moving forward with aggressive I&I mitigation and Hydraulic Modeling for evaluating structure and capacity within the SE collection system. The model evaluates storage capacity and flow within the main sections of the trunk line serving the collection system. The model can be expanded into additional locations within the service area for evaluating impacts associated with new development. According to the Master Plan December 2005, the service area has a potential capacity of 13,405 connections. All projects greater in size than 20 Single Family Dwelling Equivalents (SFDs) are required to utilize the SE model. The model identifies the areas within the collection system where infrastructure improvements are necessary.*

In April 2010, the LACOSAN Board of Directors approved a system capacity fee for the collection system. This brings the total fee for a new sewer connection to nearly $10,000 per SFD equivalent.

The SERWTP has aerated lagoons and serves 8,471 SFD equivalents with a 2010 population of 15,226.[31] The SERWTP has an average dry weather flow of 0.90 mgd and a monthly average wet weather flow of 2.30 mgd. SFD equivalent flow is 210 gallons per day. This treatment facility provides treatment for seven sewer billing areas including six in the City of Clearlake and one in Lower Lake. Average flow per connection within the SERWTP service area is 210 gpd per connection or 210 gpd per SFD equivalent.

4.6.2 Southeast Regional Wastewater Treatment Plant Requirements

The SERWTP is subject to RWQCB Board Order #96-166 including Waste Discharge Requirements and a Monitoring and Reporting Program issued on June 21, 1996. According to this order, the monthly average wet weather effluent flow shall not exceed 6.1 mgd and the plant's hydraulic capacity shall not exceed 8.5 mgd of secondary treated wastewater.

[31] Mark Dellinger, Special Districts Administrator, 230A Main Street, Lakeport, CA 95453, January 2010, "Lake County Special Districts Administration Current Operations by Utility Area".

As of 1997, treated wastewater is transported to the Geysers for injection into the steamfield. Board Order #96-166 does not specify a requirement for ADWF. The AWWF effluent flow is required not to exceed a monthly average of 6.1 mgd and not exceed the plant hydraulic capacity of 8.5 mgd.

Multiple spills occurred between May and August 2003, in violation of Board Order # 96-166; a notice of violation was issued on August 21, 2003. LACOSAN was ordered to submit a Sanitary Sewer System Operation, Maintenance, Overflow Prevention, and Response Plan by November 1, 2003. That plan was completed. An enforcement action was taken by the Regional Water Quality Control Board regarding the Southeast Regional Collection system. Between 2002 and 2004, 26 spills occurred. As a result, sewage hauling has been required at a substantial cost to LACOSAN. The California Regional Water Quality Control Board Central Valley Region issued a Cleanup and Abatement Order No.R5-2005-0704 for the Lake County Sanitation District Southeast Regional Wastewater System on February 5, 2005. The problems were with the collection system for the Plant. LACOSAN has completed all of the required actions from this Order. However, on March 7, 2010 a Notice of Violation was issued for spills in the Highlands Harbor/Meadowlark area within the City of Clearlake. As a result of this spill, the district is in the process of implementing several short-term and long-term measures as previously discussed. The treatment plant has adequate capacity.[32]

4.6.3 Southeast Regional Wastewater Treatment Plant Collection System

Wastewater is transported through a series of sanitary sewer main pipelines within subdivision streets, secondary outfall pipelines (large diameter pipelines), major outfalls (large diameter pipelines), and force mains (pressure pipelines associated with pump stations).

The collection system includes 23 pump stations, 1,900 manholes and 90 miles of collection pipe. These outfall pipelines convey wastewater to the Southeast Regional outfall sewer pipeline, which leads to the Geysers injection area.

According to the Master Plan, “The Southeast Regional Wastewater Treatment Plant can hydraulically pass 7.8 mgd. This capacity compares to the permitted peak month flow of 6.1 mgd through the plant.”

The collection system primarily serves residential customers. Small businesses and restaurants comprise a small percentage of total wastewater flow. The Southeast Regional System does not service any heavy industrial customers.

[32] Mark Dellinger, Special Districts Administrator, 230A Main Street, Lakeport, CA 95453, Ph: (707) 263-0119 F: (707) 263-3826, January 2008.

4.6.4 Southeast Regional Wastewater Treatment Plant Facility

According to the Master Plan,

> *A conventional activated sludge plant was decommissioned in 1998 when a new treatment system was put into service. The SERWTP now consists of headworks with a mechanical bar screen and bypass channel. Two slide gates split flow to the north and south treatment lagoons. Each lagoon is divided by baffled curtains into one fully mixed cell and two partially mixed cells. Four surface aerators provide mixing in each cell.*
>
> *Pond effluent enters the chlorine contact channel through a rapid mix structure containing a mixer where sodium hypochlorite is injected for disinfection. The flow through the chlorine contact channel is controlled by an inlet weir and an outlet gate. From this point, the flow is channeled to the effluent reservoir.*[33]

4.6.5 Southeast Regional Wastewater Treatment Area Build-out

Based on the 2006 "Build-out Analysis," the Southeast Regional Wastewater Treatment Plant had 6,009 service connections and a total capacity of 13,405 service connections.

The City of Clearlake and the community of Lower Lake have 1,042 vacant acres divided into 6,201 vacant, unserviced parcels. This would allow 6,455 additional dwelling units with an estimated additional population of 15,686.[34] This shows the WTP has significant wastewater treatment capacity available to accommodate future growth in the City of Clearlake and Lower Lake area.

A. City of Clearlake

The Lake County Special Districts Administration divides Clearlake into six improvement districts. The January 1, 2010 total for Clearlake is 6,113 active residential connections, 159 commercial connections, and 171 standby connections for a total of 6,443 connections and 7,925 single-family dwelling equivalents.[35] The 2010 estimated population served is 14,334.[36]

B. Lower Lake

In October 2007 Lower Lake had 367 active residential connections, 15 commercial connections, 4 standby connections for a total of 386 connections and 628 single-family dwelling equivalents. The 2010 estimated population served is 892[37]

[33] Lake County Sanitation District, "Southeast Regional Wastewater Treatment Plant Master Plan, December 2005, CH2MHILL,2525 Airpark Drive, Redding, CA 96001.
[34] County Special Districts, "Build-out Analysis of Lake County Water and Wastewater Systems" Prepared by Criterion Planners, www.crit.com, April 2006, p.26.
[35] Lake County Special Districts Administration, 2010
[36] Lake County Sanitation District, "Current Operations by Utility Area," 1/1/10.
[37] Lake County Special Districts Administration, 2010

4.7 Middletown Wastewater Treatment Plant

4.7.1 Middletown Wastewater Treatment Plant Background

Middletown Wastewater Treatment Plant is the smallest wastewater treatment plant considered in this study according to the Special Districts website.[38]

History of Middletown Wastewater Treatment Plant

Based on the results of a 1987 study sponsored by the Lake County Environmental Health Department, the Board of Supervisors adopted a moratorium on new septic systems and Assessment District 2-2 (AD 2-2) was established for the purposes of constructing a wastewater collection and treatment facility. The Middletown wastewater collection and treatment facility was constructed and started serving the downtown and surrounding residential areas of Middletown in 1992. In 1999 metered wastewater metered service to Harbin Hot Springs was added to the system.

Customer Statistics and Infrastructure for Middletown Wastewater Treatment Plant

The Middletown Wastewater Collection and Treatment System currently includes:

- *733 Connections (699 Single Family Dwelling (SFD) equivalents). The system also accepts flow from the Harbin Hot Springs area.*
- *Over 225 manholes and over 10 miles of pipe within the gravity collection system.*
- *3 Lift Stations and over 3 miles of force main piping conveying wastewater flows to the Middletown Wastewater Treatment Plant.*

Status of Middletown Wastewater Treatment Plant

The Middletown facility was originally constructed 19 years ago for a much smaller community. Over the years, the number of customers has grown, and the treatment plant and facilities are currently operating near capacity. The 12-month averaged increase (2008) in the Middletown customer base is 3.1%. The Twin Pine Casino Expansion came into the collection system in 2008.

Outlook for Middletown Wastewater Treatment Plant

Expansion of the treatment capabilities are one of the focuses for the system. Construction of a chlorination facility, other "efficiency improvements," and treatment refinements are being looked at to safely accommodate flows into the system for the existing customer base and reasonable future growth. The Master Plan for the Treatment Plant was completed in September of 2005. A new facilities plan and project definition report will be completed in 2010. This will become the basis for system improvements. A capital project will be initiated and will require a rate increase and a system capacity fee increase.

[38] Lake County Sanitation District, 2010, www.co.lake.ca.us/Government/Directory/Special_Districts.htm

The District is moving forward toward the development of a Network Hydraulic Model for the area. The model will provide a tool to better evaluate structure, capacity and flows within the collection system. The model will identify the areas within the collection system where infrastructure improvements are necessary including:

1) Improvements to lift stations and force mains to safely convey additional flows, contribute to the capital improvement program (CIP) based on the development's percentage of use.

2) Improvements to collection system piping and manholes to safely accommodate flows, contribute to CIP based on the development's percentage of use.

3) Mitigate I&I to offset the additional flow impacts within key areas of the system.

The Middletown Wastewater Treatment Plant is a facultative pond facility with an ADWF of 0.12 mgd and AWWF of 0.37 mgd located approximately 2 miles northeast of the community of Middletown. This WTP serves 733 connections at 812 SFD equivalents with a population of 1,822.[39] Average flow per connection within the WTP service area is 210 gpd per connection or 210 gpd per SFD equivalent.

The Middletown Wastewater Service Area (AD2-2) does not coincide with the Middletown Planning Area as described in the Middletown Area Plan.

The Middletown Wastewater Service Area coincides more closely with the Middletown Community Area. The entire Middletown Planning Area (including Middletown Community Area) has experienced numerous problems with individual septic systems since Middletown became a Community Area.

The development of the Middletown Wastewater System by LACOSAN has helped to reduce the contamination of groundwater in this area but there still are numerous septic systems in the rural lands around the Middletown Community Area.

4.7.2 Middletown Wastewater Treatment Plant Requirements

The Middletown WTP is subject to the requirements contained in RWQCB Board Order 97-249 and monitoring and reporting program adopted on December 5, 1997. These requirements call for the treatment of 0.15 mgd average daily dry weather flow and a peak wet weather flow of approximately 0.5 mgd of domestic sewage from the community with treatment ponds.

Treated effluent is disposed of primarily through the Geysers effluent pipeline by injection into the Southeast Geysers steamfield. An existing spray irrigation system is available for effluent disposal by irrigating fodder crops on a backup basis.

The Middletown WTP is currently operating at approximately 85% of permitted capacity, assuming a monthly average of 0.15 mgd of wastewater treated. Based on the average flow per SFD equivalent, an additional 107 SFD equivalents could be permitted before the WWTP is at full permitted capacity.

[39] Lake County Sanitation District, 2010
Adopted November 17, 2010
LACOSAN MSR Resolution 2010-0012
Lake LAFCO

According to the 2005 Master Plan, the service area has 204 non-connected single-family dwellings. Wastewater from an estimated 115 potential connections within the service area cannot be treated at the current permitted capacity. Improvement planning for phased treatment plant expansion has recently been initiated.[40] (This Master Plan is in the process of being updated).

4.7.3 Middletown Wastewater Treatment Plant Collection System

Wastewater is transported through a series of sanitary sewer main pipelines within the community of Middletown, secondary outfall pipelines (large diameter pipelines), major outfalls (large diameter pipelines), and force mains (pressure pipelines associated with pump stations).

The Collection system includes three pump stations, 224 manholes, and 19 miles of collection pipe.[41] These outfall pipelines convey wastewater to the Middletown WTP outfall to its facultative pond area to the reuse pipeline, which leads to the Geysers injection area.

The collection system primarily serves residential customers. Small businesses and restaurants comprise a small percentage of total wastewater flow. The Middletown WWTP does not service any heavy industrial customers.

4.7.4. Middletown Wastewater Treatment Plant Facility

According to the 2005 Master Plan, The Middletown Wastewater Treatment Plant consists of a facultative pond system consisting of a primary pond, three secondary ponds, a sodium hypochlorite feed system and contact basin, an effluent storage reservoir, an effluent pump station, and a spray irrigation system. The effluent is pumped through the effluent pump station and is disposed of through the conveyance and injection of the effluent into the Southeast Geysers Effluent Pipeline (SEGEP) for reuse of the effluent in steam generation at the Geysers geothermal steamfield. The existing spray irrigation system is used for effluent disposal by irrigating fodder crops only on an emergency basis. (This Master Plan is currently in the process of being updated)

4.7.4 Middletown Wastewater Service Area Build-out

According to the "Build-out Analysis" (prepared in 2006) the Middletown Wastewater Service Area has 446 connections. The capacity for wastewater treatment is 933 connections but at total build-out there could be 1,158 connections.[42] There are 110 vacant unserviced acres with 107 parcels. Notwithstanding zoning requirements and the potential for future land divisions, there could be 106 future dwelling units with a population of 274 in addition to those now served.[43]

[40] Mark Dellinger, Special Districts Administrator, 230A Main Street, Lakeport, CA 95453, 2010
[41] Mark Dellinger, Special Districts Administrator, 230A Main Street, Lakeport, CA 95453, 2010
[42] County Special Districts, "Build-out Analysis of Lake County Water and Wastewater Systems" Prepared by Criterion Planners, www.crit.com, April 2006, p.40-41
[43] County Special Districts, "Build-out Analysis of Lake County Water and Wastewater Systems" Prepared by Criterion Planners, www.crit.com, April 2006, p.40-41

In August 2010 there were 629 active residential connections, 34 commercial connections and 1 standby connection for a total of 733 connections or 811 single-family dwelling equivalents.[44]

Due to chronic wastewater pollution problems in the Anderson springs area; the County of Lake is in the process of preparing an Environmental Impact Report for a proposed Anderson Springs Wastewater Collection Project. Anderson Springs is located approximately 4.5 miles northwest of Middletown. The proposed Anderson Springs service area consists of approximately 0.75 square miles and serves a year-round population of 460 and a seasonal population of 1,100. This proposal would be to convey wastewater via a pipeline to the Middletown Wastewater Treatment Plant.

The recommended alternative for collection and conveyance of the wastewater from the Anderson Springs community would be through the use of a Septic Tank Effluent Pump (STEP) system. STEP systems are a hybrid of an on-site treatment and disposal system and a community gravity sewer. STEP systems continue to use on-site septic tanks to remove grit and solids and provide initial biological treatment for the wastewater. Rather than use on-site disposal of the septic tank effluent, however, each septic tank is fitted with a small horsepower effluent pump.

Septic tank effluent would be pumped through a 2-inch effluent lateral to 4-inch effluent mains, then to the Middletown Wastewater Treatment Plant.

4.8 Konocti Harbor Resort

Konocti Harbor Resort owns and operates its own wastewater treatment system for its 120 acre site. The resort can provide accommodations for up to 1,500 people. The facilities also include a 5,000-seat amphitheater and 1000-person concert hall. This facility is temporarily closed.

[44] Lake County Special Districts Administration, "Current Operations by Utility Area", August 2010

5 FINANCIAL REVIEW OF LACOSAN

Each year a preliminary budget for LACOSAN is prepared and submitted to the LACOSAN Board of Directors by the Lake County Special Districts Department. This budget is based on historical data and projected needs. The final budget is normally adopted around September 1st.

After budget approval by the Board of Directors, if there is any increase for health and safety reasons the Special District Department makes a request for the funds at a regular agenda. Small changes to the budget require approval of the County Administrator. The Lake County Auditor's office compiles budget data for Lake County Special Districts Administration which manages the LACOSAN.

Financing mechanisms are an area of concern when local governments finance large capital facilities and depend upon fees and (or) taxes for financing. Appendix B in part provides an enumeration of legislation and voters initiatives to modify the method by which public facilities may be financed. A potential issue of having major problems with an individual plant is that the willingness of the landowners to pay for the huge jump in cost may be exceeded. This has happened in other counties and resulted in the County taxpayer's or other ratepayers being forced to cover the cost. Unfortunately, there is not much LACOSAN can do about a voter initiative to lower wastewater treatment costs and fees except to have adequate reserves to cover major capital expenses.

In the event a Cease and Desist Order, the Order is placed on the entire system and in the event any fine is levied that fine will be charged to a specific system (for example, the Southeast Regional System) and is charged to that system under "operations and compliance." Likewise, if a spill occurs in the Northwest Regional System, for example, associated costs will be charged to that system under "operations and compliance."

5.1 Budgets

5.1.1 Budget Unit 8350

LACOSAN (Clearlake, Lower Lake, North Lakeport to Paradise Cove) 2010-2011 budget of $5,682,976 includes revenue estimates of $5,158,299 and carry-over of $524,677.[45] The prior year's budget (2009-10) was $6,471,196.00.

According to the 2010-2011 budget, "Significant appropriations include general system maintenance, utilities, and professional services." The 2010-2011 budget was decreased from $6,471,196 to $5,682,976 for Budget Unit 8350.[46]

[45] Lake County, 2010-2011 Budget
[46] Lake County, 2009-2010 and 2010-2011 Budget MISSING FOOTNOTE Numbers "67" and "68"

1.2. Budget Unit 8353 (Middletown)

Wastewater collection for the Middletown area has a 2010-2011 budget of $194,211 (including estimated revenue of $149,269 and carry-over of $40,142).[47] The 2010-2011 budget was decreased by $138,022 (from $332,233 in the prior year).[48]

According to the 2009-2010 budget, "Notable appropriations include maintenance of the collection system and equipment and utilities.[49]

Using the adopted 2010-2011 budget, LACOSAN's estimated operations budget is $5,877,187. Major expenses are salaries and wages, employee benefits, professional services, utilities, and general maintenance and equipment. Income generated comes from permit and hook-up fees, and interest. Administration for LACOSAN is in an Internal Service Fund for the Special District's Department along with several other dependent districts managed by the department.

The County performs many direct in-house services as well as indirect services billed through the County's A-87 process. The District's operational budget and revenues have decreased over the past few years due to weakening economic conditions (County of Lake, Final Budget 2010-2011).

LACOSAN has a CIP Reserves fund for capital projects. The District budgets for improvements as required in accordance with its approved facilities plans for its treatment and collection and outfall facilities. LACOSAN's main revenue sources are new connection fees, and monthly service fees; LACOSAN receives no share of the County's property tax revenues. Outstanding debts are through the State Revolving Loan Fund (SRF).

5.2 Sewer System Rates

5.2.1 Rate Classes

The Foresight Study Tables are found in Appendix A at the end of this report. The Foresight Consulting Study makes the following comments regarding the sewer customer classes:[50]

> *Sewer customer classifications are far more detailed than necessary and individual districts are unnecessarily dissimilar; we have recommended changes that bring those classifications more in line with industry standards and those of other communities in the region. The recommended customer classes are also more consistent with the cost-of-service principles embodied in this overall rate study.*

Figure 2-1 in the Study provides an example from the Southeast District's current 18 classes compared to the recommended 4 customer classes shown in Figure 2-2 of the study.

[47] Lake County, 2010-2011 Budget
[48] Lake County 2008-2009 Budget, p145.
[49] Lake County, 2007-2008 Budget, p123.
[50] Foresight Consulting, "Water and Sewer Rate Study Report", page 5, July 22, 2008.

As shown in Figure 2-1 of the study, the rate coding and the classifications are unique and functional. Unfortunately, they are quite different from district to district. This makes consistency in rate calculations, administration, customer service, and accounting practices more difficult and often confusing to customers and staff. Additionally, it is not clear how these classifications are applied to individual customers, but previously rates were based solely on flow and charged as a flat rate. Figure 2-2 of the study shows the recommended 4 customer classes. These would be applied to all sewer districts, thereby creating uniformity between the districts.

5.2.2 Sewer Service Rate Increases

The sewer rate cost-of-service methodology used by the Foresight Consulting Study is explained as follows:[51]

> *This rate study followed AWWA and industry standard cost-of-service methodology for sewer rates. This analysis essentially determines the revenue needed from rates and how those revenues should be recovered from customers.*
>
> *The revenue requirements are functionalized by wastewater loading parameters (flow, BOD and TSS) and divided by the total units of each to calculate the unit costs. Those unit costs are then allocated to each customer class based on their total flow, BOD and TSS, thereby determining the revenue requirements for each customer class.*
>
> *Non-residential customer rates for sewer customers are determined using the State guidelines for wastewater strength (i.e., flow, BOD and TSS) and determining the percentage of residential strength wastewater for each of these constituents. Using that percentage, the costs for each parameter (flow, BOD, TSS) are calculated for an equivalent dwelling unit (EDU) of flow. By totaling these three costs, the unit cost per EDU for each customer class is calculated. Each non-residential customer should then be charges a rate based on the number of EDU's of flow times that unit cost.*

A Foresight Study table shows projected rate increases[52] which are substantial. The Financial Plan shows that the rate increases will be larger in the first part of the five-year plan and by the end of the five-year plan (2013) the rate increases will be no higher than 14%. A comparison of the current and the new bi-monthly residential sewer rates is also shown in the Study.[53] Even though the percentage increase in the sewer rates sounds large the actual monetary amounts are not that high compared to other jurisdictions. In fact, the residential rates are lower than those many other northern California communities.

The Foresight Consulting Study explains these rate increases as follows:

[51] Foresight Consulting, "Water and Sewer Rate Study Report", page 15, July 22, 2008.
[52] Foresight Consulting, "Water and Sewer Rate Study Report", page 17, July 22, 2008
[53] Foresight Consulting, "Water and Sewer Rate Study Report", page 20, July 22, 2008

To a large extent, these rate increases reflect the need to begin funding new debt service payments and meeting the bond coverage requirements imposed by new revenue bonds.[54] Also, as mentioned above, the individual rates do not necessarily have the same percentage increases as the overall rate increases due to the cost-of-service and financial plan adjustments.

5.3 Sewer System Revenue Requirements

A table from the Foresight Consulting Study compares the sewer system budgets with the revenue requirements.[55] The study finds that the revenue requirements will increase substantially because the study recommends a bond to pay for improvements and the budgets will then include debt service which could exceed 15% of the budget in some years.

For each system, the revenue requirements exceed the budget. The total budget costs and needs mean little to the average home-owner. The typical rate-payer only wants to know what it will cost him. However, if the wastewater collection and treatment system is not operated correctly, the costs will be much higher. Therefore, it is important to provide adequate revenue to operate the systems in a timely manner.

The Foresight Study explains how these revenue requirements were determined as follows:[56]

The sewer district projections include the cost of new debt service to fund capital improvement costs. The sewer systems have a total debt service of $0.82 million in FY'09-10 but, due to the revenue requirements of $6.6 million, this is only 12.5% of annual revenue requirements.

These projections are Foresight's best estimate of the future revenue needed from sewer rates based on currently available information. In particular, they reflect the expected costs of the capital improvements to remedy existing deficiencies and fund regulatory-driven improvements. The District's staff and engineering consultants are the primary source of the capital cost estimates, while district budgets are the basis for operating costs.

A Foresight Study table summarizes the difference between current revenue, revenue requirements and the revenue generated by the new rates for sewer service.[57] According to the study, even with a substantial rate increase the revenue would not meet the revenue requirements.

[54] *Coverage requirements are a ratio of year-end reserve funds to the annual debt service imposed by bond covenants for the purpose of providing security to bond holders that the borrowing agencies will be able to make their annual debt service payments and repay the bond holders.*
[55] Foresight Consulting, "Water and Sewer Rate Study Report", page 8, July 22, 2008
[56] Foresight Consulting, "Water and Sewer Rate Study Report", page 9, July 22, 2008
[57] Foresight Consulting, "Water and Sewer Rate Study Report", page 10, July 22, 2008

The Foresight Consulting Study notes that:

> *First year rate increases range from 12% to 50% for sewer districts. Because of the factors and the multi-year outlook considered in the financial plan, the revenue from new rates will be different from the revenue requirements, but over the five-year planning period the rate increases and revenue they generate will meet the financial needs of the districts.*[58]

The Foresight Study shows the projected revenue from the recommend rate increases by sewer system in a table.[59] With the most connections, the Southeast System needs the largest revenue.

5.4 Sewer System Capital Costs

A summary of sewer system capital improvement costs is shown in the Foresight Study.[60] The Study divides the costs between rehabilitation and plant improvements for each system for each year. The Foresight Consulting Study explains the table as follows:[61]

> *The capital costs shown include sewer system master plan (SSMP) projects to correct collection system deficiencies, but by far the most significant costs are treatment-related improvements. The Special Districts Administration agrees with Foresight's recommendation that the best approach for funding capital improvements is to take out two long-term loans,*[62] *with each district paying its own share of the costs of the resulting annual debt service. This approach minimizes the issuance and financing costs of securing this funding and, more importantly, provides money upfront for necessary projects. Otherwise, rate increases would be prohibitively high or there would not be sufficient funding to do the necessary improvements.*

The Foresight Study includes two tables which summarize the financed CIP costs and the annual debt service payments. One table recommends that 100% of the sewer district capital projects are funded by new debt.[63] The second table shows that for the Southeast Plant the debt services costs could be over $2,000,000 in a five year period. The percent of new residential sewer rates used for Capital Improvement Costs is shown in a separate table.[64] For the Southeast Regional System 26% of the rate revenue would be used for capital improvement costs.

LACOSAN recently completed a Proposition 218 process in the Collection System in the Clearlake area whereby fees would be increased to capitalize a proposed $5.4 million

[58] Foresight Consulting, "Water and Sewer Rate Study Report", page 10, July 22, 2008
[59] Foresight Consulting, "Water and Sewer Rate Study Report", page 17, July 22, 2008
[60] Foresight Consulting, "Water and Sewer Rate Study Report", page 11, July 22, 2008
[61] Foresight Consulting, "Water and Sewer Rate Study Report", page 11, July 22, 2008
[62] *This funding will most likely be in the form of revenue bonds. Based on discussions with Northcross, Hill & Ach, Financial Advisors, we have assumed one issuance for water and one for sewer districts. A 30-year repayment period and a 5.5% interest rate were used in calculating estimated annual debt service payments.*
[63] Foresight Consulting, "Water and Sewer Rate Study Report", page 12, July 22, 2008
[64] Foresight Consulting, "Water and Sewer Rate Study Report", page 18, July 22, 2008

project to solve a chronic infill and infiltration problem. This includes a 40% increase and implements approximately one half of the Capital Improvements Plan for the Southeast system. The recommended increase by the Foresight Study would have required a doubling of rates.

5.5 Sewer System Capacity Fees

5.5.1 System Capacity Fees Introduction

The Foresight Consulting Study explains the Capacity Fees as follows:[65]

> *Capacity fees[66] are typically calculated with the intent of removing any financial benefit new customers might receive when they connect to the sewer services. That is, they should be required to "buy-in" to their fair share of capital facilities paid for by previous customers, as well as pay for any new facilities required to serve them, which are referred to as "incremental" costs. Once they are on equal footing from a financial perspective, all customers (new and existing) should then pay the same service charges.*
>
> *The current sewer "cap fees" or system capacity fees (SCFs) managed by the Special Districts Administration were set based on fees published in annual state-wide survey reports prepared by the State Water Resources Control Board and the Black & Veatch Corporation. These data were also compared to fees charged within other jurisdictions in the County and rural areas of northern California.*

5.5.2 System Capacity Fees Calculation

The Foresight Consulting Study explains the determination of capacity fees as follows:[67]

> *Calculating system capacity fees includes evaluating both the buy-in and incremental capital facilities for each district. The buy-in related assets would include all existing assets with remaining useful life from an accounting standpoint; that is, those not fully depreciated. The incremental portion of the fee includes all planned capital improvements, especially those specifically required to serve new development.*
>
> *The amount of remaining capacity in the water and sewer systems of each district is generally the total capacity in equivalent dwelling units (or EDU's) minus the amount of capacity currently used by existing customers. System capacity fees are then calculated by dividing the value of the existing and planned capital assets allocated to future customers (or "growth") by the total capacity available to new customers.*
>
> *The value of outstanding principal on debt and grant-funded facilities must be excluded from the SCF calculations as explained below:*

[65] Foresight Consulting, "Water and Sewer Rate Study Report", page 21, July 22, 2008
[66] *The Special Districts Administration and water/sewer systems use the term "cap fees" when discussing what are more accurately call "system capacity fees". This fee should be distinguished from "connection fees" that refer to the costs of installing a service connection, also referred to as "hook-up fees."*
[67] Foresight Consulting, "Water and Sewer Rate Study Report", page 22, July 22, 2008

Outstanding Principal on Debt – Including outstanding principal would likely result in double-charging new customers if this cost was included in the SCF and then also included as debt service payments in the service charges.[68]

Grant Funds – Including grant-funded facilities is not appropriate since grant funds were essentially free to the district; in other words, SCF's cannot include costs the district did not incur to serve future customers.

5.5.3 System Capacity Fees Summary

The Sewer System Capacity Fees developed by Foresight Consulting show that the fee for the Southeast area could be lowered[69] but the fees adopted by the Lake County Board of Supervisors acting as the Board of Directors for the Lake County Sanitation District in Ordinance No. 2924 were increased due to problems with the system. In April 2010 the LACOSAN Board of Directors approved a system Capacity Fee for the Southeast Collection system. The total fee for a new sewer connection in the Southeast area is nearly $10,000 per SFD equivalent.[70]

5.6 LACOSAN Area Financial Background

5.6.1 Northwest Regional Sewer System

The table prepared by Foresight Consulting summarizes budget projects for the Northwest Regional Sewer System along with the net revenue requirements, which must be funded through rates each year in order to achieve a balanced budget. (As a result of the financial plan, actual rate revenue in any year may be less than net revenue requirements for that year.)[71]

Two tables, prepared by Foresight Consulting, summarize the financial plan and project rate increases for the Northwest Regional Sewer System. (The rate increases shown are the percent increase in current rate revenue, not individual rates, which are determined through the cost-of-service rate analysis.)[72] The rate increases are of greater interest to the individual rate payer.

Financial plans take a longer-term perspective in selecting rate increases, and attempt to smooth out the increases, meet necessary reserve fund levels, and satisfy the coverage ratio requirements of new debt issued. The figure prepared by Foresight Consulting shows that the total year-end fund balance for the Northwest Regional Sewer System[73] would decrease only slightly with rate increases but would decrease substantially (by over two million dollars) with no rate increases.

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[68] *However, including outstanding principal is acceptable if repayment is clearly from future SCF revenues.*
[69] Foresight Consulting, "Water and Sewer Rate Study Report", page 23, July 22, 2008
[70] Lake County Sanitation District, Ordinance 2924 An Ordinance Amending Section 706B of The Sewer Use Ordinance Pertaining to Inflationary Adjustment Determined by the Engineering News Record-Construction Cost Index, April 13, 2010.
[71] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 51, July 22, 2008
[72] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", pages 51 and 52, July 22, 2008
[73] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 52, July 22, 2008

The table prepared by Foresight Consulting summarizes the cost allocation process whereby revenue requirements are allocated to functional categories, and totaled as the costs allocated to both fixed and variable costs.[74] This is a technical division of costs which is of interest to the Special Districts Administration but of less importance to the average rate payer.

A table, prepared by Foresight Consulting, shows the calculation of unit costs for the function categories, including treatment parameters (flow, BOD, TSS). These unit costs are applied to each customer class in order to determine equitable rates.[75] The treatment parameters have the greatest costs.

The tables prepared by Foresight Consulting show how these unit costs are applied to each customer class, resulting in the total revenue requirement for each customer class. Non-residential customer rates for sewer customers are determined using the State Guidelines for wastewater strength (i.e., flow BOD and TSS) and determining the percentage of residential strength wastewater for each of these constituents. Using that percentage, the costs for each parameter (flow, BOD, TSS) are calculated for an equivalent dwelling unit (EDU) of flow. By totaling these three costs, the fixed rate per EDU for each customer class is calculated. Each non-residential customer should then be charged a rate based on the number of EDUs of flow times that fixed rate.[76]

Septage is the partially treated waste stored in a septic tank**.** It generally consists of all the household wastes that are disposed of through a home's plumbing system that do not drain out into the soil or are converted to gases by the special bacteria in the septic tank. Because of the higher treatment costs, septage waste charges should be based on the quantity of waste, such as per 1,000 gallons and should assume the septage is delivered to the treatment plant by a pumper truck. (An informal survey of septage charges revealed a wide range of charges by the disposal site, with charges ranging from less than $10.00 per 1,000 gallons to over $380 per 1,000 gallons. For example, El Dorado County charges $300 per pump for septage disposal.)

This makes it difficult to apply these charges to septage dumping stations, such as RV parks or campgrounds, which usually don't track numbers of customers or the quantity of waste. (It is also difficult for the Special Districts Administration to track and monitor campgrounds or RV parks that may offer septage dumping services. This is an area where future field verification and further analysis of septage customers may be helpful. The minimum bi-monthly charge of $25.96 shown in the table is a minimum charge that only includes one 1,000 gallon discharge to the wastewater treatment plant. Additional discharges would be billed at the volume rate shown in the table.[77]

Additional figures compare the current and the new residential monthly bills and show the projected rates for the Northwest Area System for 2008-09 through 2012-13.[78]

5.6.2 Southeast Regional Sewer System

[74] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 53, July 22, 2008
[75] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 53, July 22, 2008
[76] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 53, July 22, 2008
[77] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 58, July 22, 2008
[78] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 58, July 22, 2008

Foresight Consulting summarize budget projections for the Southeast Regional Sewer System along with the net revenue requirements, which must be funded through rates each year in order to achieve a balanced budget.[79] The proposed budgets allow 22% for collection, 30.7% for treatment, 20.4% for disposal, and 20.9% for administration.

Additional tables summarize the financial plan and the projected rate increases for the Southeast Regional Sewer System.[80] The required annual increases range from 3% increase to 7.6% increase. The Sewer Reserve funds are divided into the Operations Fund (Cash), Capital Improvement Fund (CIP), and the Repair and Replacement Fund (R&R).

Financial plans take a longer-term perspective in selecting rate increases, and attempt to smooth out the increases, meet necessary reserve fund levels, and satisfy the coverage ration requirements of new debt issued. The figure showing the total year-end fund balance for the Southeast Regional System[81] shows that with the rate increases the balances would decline but at a much slower rate than if there were no rate increases.

A Foresight Consulting table summarizes the cost allocation process whereby revenue requirements are allocated to functional categories such as collection, treatment, disposal, and administration, and then totals the costs allocated to fixed and variable expenses.[82]

An additional table shows the calculation of unit costs for the function categories, including treatment parameters (flow, BOD and TSS). These unit costs are applied to each customer class in order to determine equitable rates.[83] The purpose of these tables is to determine fair rates for industrial and commercial customers that may have unique wastewater flows. Two larger tables show how these unit costs are applied to each customer class, resulting in the total revenue requirement for each customer class.[84]

Non-residential customer rates for sewer customers are determined using the State Guidelines for wastewater strength (i.e., flow BOD and TSS) and determining the percentage of residential strength wastewater for each of these constituents. Using that percentage, the costs for each parameter (flow, BOD, TSS) are calculated for an equivalent dwelling unit (EDU) of flow. By totaling these three costs, the fixed rate per EDU for each customer class is calculated. Each non-residential customer should then be charged a rate based on the number of EDUs of flow times that fixed rate.

Septage is the partially treated waste stored in a septic tank**.** It generally consists of all the household wastes that are disposed of through a home's plumbing system that do not drain out into the soil or are converted to gases by the special bacteria in the septic tank. Because of the higher treatment costs, septage waste charges should be based on the quantity of waste, such as per 1,000 gallons and should assume the septage is delivered to the treatment plan by a pumper truck. (An informal survey of septage

[79] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 42, July 22, 2008
[80] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 42, July 22, 2008
[81] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 43, July 22, 2008
[82] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 44, July 22, 2008
[83] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 44, July 22, 2008
[84] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 44, July 22, 2008

charges revealed a wide range of charges by the disposal site, with charges ranging from less than $10.00 per 1,000 gallons to over $380 per 1,000 gallons. For example, El Dorado County charges $300 per pump for septage disposal.)

This makes it difficult to apply these charges to septage dumping stations, such as RV parks or campgrounds, which usually don't track numbers of customers or the quantity of waste. (It is also difficult for the Special Districts Administration to track and monitor campgrounds or RV parks that may offer septage dumping services. This is an area where future field verification and further analysis of septage customers may be helpful. The bi-monthly charge of $33.41 shown in the table is a minimum charge that only includes one 1,000 gallon discharge to the wastewater treatment plant. Additional discharges would be billed at the volume rate of $29.95 per 1,000 gallons shown in the table.[85]

A separate figure compares the current and new residential monthly bills, and a table that shows the projected rates for the Southeast System for 2008-09 through 2012-13.[86] The current revenue falls far short of the costs.

5.6.3 Middletown Regional Sewer System

A table prepared by Foresight Consulting summarizes budget projections for the Middletown Sanitation District along with the net revenue requirements, which must be funded through rates each year in order to achieve a balanced budget.[87] The Budget is expected to decrease initially and then increase each year to a total of $368,595 in 2012-2013.

Two additional tables prepared by Foresight Consulting summarize the financial plan and the project rate increases for the Middletown Sanitation District.[88] The tables show that there is no way that the Middletown Sanitation District can meet the revenue requirements with the current revenues.

Financial plans take a longer-term perspective in selecting rate increases, and attempt to smooth out the increases, meet necessary reserve fund levels, and satisfy the coverage ratio requirements of new debt issued. A figure prepared by Foresight Consulting shows the total year-end fund balance for the Middletown Sanitation District.[89] The fund balance would be severely in debt without the rate increases.

A table prepared by Foresight Consulting summarizes the cost allocation process whereby revenue requirements are allocated to functional categories, and then totals the costs allocated to fixed and variable expenses for the Middletown Sanitation District.[90] Collection is the most expensive part of the cost, followed by treatment, administration, and disposal.
A table prepared by Foresight Consulting shows the calculation of unit costs for the function categories, including treatment parameters (flow, BOD and TSS). These unit

[85] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 49, July 22, 2008
[86] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 49, July 22, 2008
[87] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 73, July 22, 2008
[88] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 73, July 22, 2008
[89] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 74, July 22, 2008
[90] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 75, July 22, 2008

costs are applied to each customer class in order to determine equitable rates for the Middletown Sanitation District.[91] This is particularly important for determining the rates for commercial and industrial users. Larger tables prepared by Foresight Consulting show how these unit costs are applied to each customer class, resulting in the total revenue requirement for each customer class.[92] Businesses are listed by type with the appropriate fee for each.

A figure prepared by Foresight Consulting compares the current and new residential monthly bills, and a larger table shows the projected rates for the Middletown District for 2008-09 through 2012-13.[93] The fees did not cover the costs at the time of the Study. The final table prepared by Foresight Consulting is a summary of the recommended sewer rates for the Middletown Regional System.

[91] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 75, July 22, 2008
[92] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 75, July 22, 2008
[93] Foresight Consulting, "Water and Sewer Rate Study Report Appendix ", page 80, July 22, 2008

6 POPULATION AND CONSISTENCY WITH ADOPTED PLANS

6.1 Lake County Population

Permanent population in Lake County in 2010 was 64,053.[94] The number of housing units in 2005 was estimated to be 34,645.[95] Population characteristics throughout the study area (Lake County) are substantially affected by seasonal variations, distinct user groups and the abundance of second homes. According to the 2000 census there are 8,884 unoccupied units representing a 26.30% vacancy rate, which is consistent with 2010 figures from the State Department of Finance showing a vacancy rate of 26.32%.

In order to plan for peak demand periods, part-time residents must to be factored into population projections. The seasonal day user also creates a significant portion of peak demand on urban services, including wastewater collection and treatment.

Assuming the same number of persons per household (2.387) for seasonal as well as year-around units, a total additional population of 20,418 persons could potentially reside in Lake County on a seasonal basis. This figure does not include population increases resulting from the hotel or resort industry.

Therefore, a seasonal population in Lake County could be as much as 78,727 especially in light of the fact the Census is conducted on April 1st, which is not considered the peak season in Lake County. Population projections for wastewater system design may come from County and City General Plans; however it is not uncommon for Facility Master Plans to be based upon unique assumptions. Based on the assumptions and according to the State Department of Finance (Interim Population Projections, Report P1, June 2001), Lake County is forecast to have over a 50% increase in population during the period 2000-2020.

California Department of Finance Population Projections for Lake County with and without occupancy of seasonal units

Year	2000	2005	2010	2015	2020
Lake County	**59,100**	**69,200**	**77,620**	**84,400**	**93,000**
Lake County Peak	**79,518**	**89,618**	**98,038**	**104,818**	**113,418**
(Assumes that the existing number of vacant units will be seasonally occupied.)					

Source: California Department of Finance, 2001.

To illustrate the effect part-time residents have on the study area, projections are provided for the County with and without inclusion of part-time residents. With inclusion of part-time residents, population and commensurate demand on wastewater collection, treatment and disposal infrastructure increases approximately 26% above the figures used by the State Department of Finance.

Using the State Department of Finance figures without accounting for vacant units, population projections for Lake County would reflect an annual +2.76% change in population between the years 2000 and 2010 and an annual +1.83% change in

[94] www.fedstats.gov/
[95] www.fedstats.gov/

population between the years 2010 and 2020. Assuming this amount is realized, the population of Lake County will increase by 31.3% between 2000 and 2010 and by another 19.8% between 2010 and 2020. It should be taken into account that areas of the County are growing at different rates.

6.2 Consistency with Adopted Plans

Land use and future development in the Municipal Service Review study area is governed by several adopted plans: the Lake County General Plan, the City of Clearlake General Plan, and the City of Lakeport General Plan. Relevant policies and land use designations for each plan are summarized below.

6.2.1 Lake County General Plan

A. Lake County General Plan-Services

The Lake County General Plan 2008 includes the following Goal and Policies regarding Wastewater:[96]

Goal PFS-3: To ensure the provision of adequate wastewater collection and treatment within the County.

Policy PFS-3.1: Adequate On-site Disposal Standards
The County shall develop, periodically review, and enforce adequate standards for septic tanks to protect water quality and public health. Use of individual septic systems shall be discouraged for larger residential and commercial developments and also for smaller developments where a public wastewater treatment facility is reasonable available. Larger developments should only occur where public wastewater treatment facilities with adequate capacity are available to serve the development.

Policy PFS-3.2: Maintenance of Septic Systems
The County should promote and support programs to educate homeowners on the care and maintenance of septic systems.

Policy PFS-3.3: Alternative Rural Wastewater Systems
The County should investigate alternative rural wastewater systems before investing in a costly conventional sewage system. For individual homes, such systems include elevated leach fields, sand filtration systems, evapotranspiration beds, osmosis units and holding tanks. In addition, composting toilets should be considered by the County for some situations, if determined to be appropriate and found not to pose a health risk. For clusters of homes, alternative systems include communal septic tank/leach field systems, package treatment plants, lagoon systems, and land treatment.

Policy PFS-3.4: Developer Requirements
The County shall require that developers meet all County wastewater requirements for adequate collection, treatment, and disposal prior to breaking ground for construction.

[96] Lake County General Plan 2008, page 5-5 to 5-6.

Policy PFS3.5: Water Conservation
The County shall minimize wastewater flows through water conservation efforts. Consideration should be given to allow use of gray water for landscape irrigation.

Policy PFS-3.6: Sanitary Sewer Connections
The County will promote the development of sewer systems and connection of land uses to sanitary sewer systems where (a) failing septic tanks, leachfield, and package systems constitute a threat to water quality and public health that cannot be remedied otherwise; or (b) future development will exceed acceptable standard for septic tanks (such as density or flow of effluent into the groundwater).

Policy PFS-3.7: Reduce Density/Intensity near Sewer Plants
The County shall reduce the potential for future land use conflicts near sewer treatment facilities by minimizing development potential on surrounding parcels through zoning and land use designations that limit residential density and/or commercial intensity. Proposals for land division adjacent to sewer treatment facilities should not be approved unless large parcels can be provided with adequate, on-site buffers.

B. Lake County General Plan-Communities

The General Plan calls for more detailed plans to be prepared for the County's unincorporated communities. These plans take the form of area plans, which can then be adopted as part of the General Plan.

Within community regions the interrelationship of land use and circulation and target areas for housing rehabilitation or preservation are encouraged. Community areas are to be used to promote compact growth where development can be served most efficiently and effectively with necessary urban services and facilities.

Community areas are defined by Community Boundaries generally based upon the following criteria:

- Existing development patterns reflecting higher intensity and density of use and need to provide land area to accommodate a balanced pattern of development in the County;
- Existing and potential service areas for major services such as public sewer and water;
- Location of major topographic patterns and features;
- Major transportation corridors and travel patterns;
- Ability to provide and maintain appropriate transitions at Community Boundaries.

The levels of service and provision of public facilities in community areas is to be based upon improving the capacity of public facilities to serve higher levels of development directed to defined communities.

The levels of service and provision of public facilities in rural areas is to be based on limiting the amount of development to ensure that adequate facilities are available. Planning for future public facilities and services in community areas assumes public wastewater collection and treatment systems, while rural regions may rely on public or private on-site wastewater collection and treatment systems.

The land use pattern reflected on the Lake County General Plan Land Use Map is correlated with the future provision of public facilities to ensure adequate service of land uses, based upon the service criteria and levels of service for the identified areas.

All General Plan amendments must show that the public facilities and services necessary to serve the proposed development are also correlated with the future provision of facilities and services according to the same criteria.

To enable public services to be provided with the greatest degree of efficiency and cost-effectiveness, development within community areas is encouraged to be at the maximum density under the respective land use designations shown on the General Plan Land Use maps, consistent with environmental, infrastructure, and other site constraints.

6.2.2 City of Clearlake General Plan

The City of Clearlake General Plan was adopted in 1983 and amended several times. The most significant amendment in relation to this wastewater service review was in 1988 when the City added goals, objectives, policies, and implementation measures on a variety of items including "Solid and Liquid Waste Disposal Facilities." When the City was incorporated, much of its territory was not served by a wastewater collection and treatment system.

A. City of Clearlake-Population

According to Federal 2000 Census data, Clearlake is well below Lake County averages for median household, family, and per capita income levels. Current Federal Census information indicates that there are 13,142 people residing in the City of Clearlake with a total of 5,532 households.

Median income for Clearlake households is approximately $19,863 (less than the County average at $29,627) with family income a bit higher at $25,504 (less than the County average of $35,818). Per capita income for the city is $12,538 (lower than the County average at $16,825), which means approximately 28.6% of the population of Clearlake is below the poverty line (higher than the County average at 17.6%).

The City of Clearlake Parks Master Plan has projected that the population of the City will be 17,216 by the year 2010. Much of the City's growth can be attributed to lake-generated recreation and tourism.

B. City of Clearlake-Services

The original City of Clearlake General Plan contained Policy 2.09 that said: "All new commercial and industrial development should be connected to sewers or meet City standards for septic systems. All new multi-unit residential development and single-family residential subdivisions on lots less than 12,000 square feet should be connected to sewers."

This City of Clearlake General Plan contained language that promoted improvement of the water quality of Clear Lake by monitoring pollution generated by a variety of sources including septic systems. In 1988, the City adopted Resolution 88-51 that repealed original Policy 2.09 and added the following new policies regarding sewers and septic systems respectively:

> *The city shall continue to support the expansion of the sanitary sewer system within the City and to require the connection of new development to the system when such service is within a reasonable distance, except as otherwise permitted by other adopted regulations and policies of the Lake County Environmental Health Department and Lake County Special Districts. All new multi-unit residential development and single-family residential subdivisions on lots of less than 15,000 square feet shall be connected to sewers.*
>
> *The city shall continue to cooperate with the County to ensure that on-site sewage disposal facilities are regulated, designed and maintained so as to protect the public's health and safety.*

6.2.3 City of Lakeport General Plan

The City of Lakeport was incorporated as a General Law City in 1888. The most recent General Plan was prepared in 2008[97] and approved by City Council March 2009.

A. City of Lakeport-Population

The following table from the City of Lakeport General Plan 2025 shows the projected population growth for the City:[98]

Population and Household Projections, 2000 to 2025* – City of Lakeport

	2000*	2005*	2010*	2015*	2020*	2025*
Total Population*	4,820	5,150	5,521	5,935	6,380	6,859
Households*	1,967	2,148	2,339	2,515	2,703	2,906
Average Household Size	2.36	2.36	2.36	2.36	2.36	2.36

* DOF Lake County growth rates used for the City of Lakeport through 2025.
**Assumes 2000 Lakeport avg. household size of 2.36 remains constant.
Source: 2000 U.S. Census, Department of Finance.

For the three-year period 2000-2002, 26 new residential building permits were issued in the City; in 1990-1992 a total of 630 were issued. Most of the building permit activity during 2000-2002 involved miscellaneous residential and commercial permits not involving new construction.

[97] City of Lakeport, General Plan 2025.
[98] City of Lakeport, General Plan Update 2025, Urban Boundary Element, Page III-4.

Municipal services in the City are affected by an influx of visitors seeking recreation opportunities, especially in the summer. This is an annual occurrence, and is taken into account by the City in its planning activities.

B. City of Lakeport-Sphere of Influence

Regarding annexations and Lakeport's Sphere of Influence, the General Plan 2025 includes an Urban Boundary Element to provide guidance related to future annexation of land from the City's Sphere of Influence. The Plan includes the following Annexation Priorities:[99]

> *The City should pursue annexations based on the following priority system:*
> *1. Commercial and industrial land along South Main Street and Soda Bay Road.*
> *2. Land designated as Specific Plan Area*
> *3. Land within the southern, southwestern and western Sphere of Influence.*

The area north of the new Sphere of Influence line is already part of a joint City/County sewer district served by LACOSAN, thereby reducing the need to annex to Lakeport in order to obtain municipal services.

Although the County has jurisdiction over the unincorporated areas within the City's Sphere of Influence, the policies and land use designations established by the City's General Plan for this area become effective at the time a request for annexation to the City is made. Close coordination between City and county planning policies is required to promote harmonious annexation and development of this area.

6.2.4 Master Plans

Each of the wastewater treatment plant master plans has individual population estimates and analysis of different growth scenarios. The analysis is used to make recommendations for improvements to the treatment plants. The master plans agree that Lake County will continue to experience a significant amount of population growth and that most of the growth will be permanent residents rather than seasonal residents.

[99] City of Lakeport, General Plan 2025, Page III-5.

7 WASTEWATER TREATMENT MUNICIPAL SERVICE REVIEW

The Cortese-Knox-Hertzberg Act as amended identifies five factors to be addressed in a Municipal Service Review. For each factor, information is gathered and analyzed, with determinations prepared for LAFCO's consideration. Lake LAFCO is responsible for determining that an agency is reasonably capable of providing needed resources and basic infrastructure to serve areas within its boundaries and later in the Sphere of Influence. It is important that such determinations of infrastructure availability occur when revisions to a Sphere of Influence and annexations occur.

In this Municipal Service Review, LAFCO will do the following:

1) Evaluate the present and long-term infrastructure demands and resources available to LACOSAN.

2) Analyze whether resources and services are or will be available at needed levels.

3) Determine whether orderly maintenance and expansion of such resources and services are planned to occur in line with increasing demands.

7.1 Growth and Population Projections

Purpose: To evaluate service needs based on existing and anticipated growth patterns and population projections.

7.1.1 Lake County Growth and Population

Permanent population in Lake County (as estimated by the California Department of Finance) was 64,053 on July 1, 2010. There were 34,645 housing units in Lake County on July 1, 2010 with a vacancy rate of 26.32% according to the State Department of Finance City/County Population and Housing Estimates.

7.1.2 MSR Determinations on Growth and Population for LACOSAN

1-1) The LACOSAN service areas were experiencing a high growth rate until the economic downturn. Between 2009 and 2010 the population remained the same with no growth, compared to previous years where the Lake County Population growth rate was among the highest in California.

1-2) Growth projections in Lake County project a 2020 population of 77,912. The continuation of the economic downturn will lower state population estimates since those estimates are based on pre-recession data.

1-3) The Southeast Regional Wastewater System and the Northwest Regional Wastewater System will be upgraded to reflect the Master Plans and growth trends beyond 2020.

1-4) A new facilities plan for the Middletown Wastewater Treatment Plant (MWTP) (operating at 85% of capacity) was completed in August 2010, and will be the basis for improvements. It is expected that rate increases will be needed and connections from Anderson Springs will contribute to wastewater flows at the MWTP.

7.2 Capacity and Infrastructure

Purpose: To evaluate the infrastructure needs and deficiencies in terms of supply, capacity, condition of facilities and service quality.

7.2.1 Infrastructure Background

As described in the preceding sections, the wastewater treatment and collection service provider in the Municipal Service Review study area is the Lake County Sanitation District (LACOSAN). The Hidden Valley Lakes CSD (HVLCSD), Clearlake Oaks County Water District, and Kelseyville County Waterworks District #3 sewer services (the latter of which is currently being upgraded) are reviewed in separate reports.

The City of Lakeport Municipal Sewer District (CLMSD) provides wastewater collection and treatment service within the Lakeport City Limits. Some parcels north of the City limits have flow to the Lake County Sanitation District (LACOSAN) system, and some parcels in the LACOSAN service area south of town are accepted in the City's system. These flows come from the Land's End/Holiday Cove area and portions of the Big Valley Rancheria on Rancheria Drive that are served by Sewer Assessment District 9-1.

City of Lakeport wastewater flows from 16th Street to the northern City Limits are received and treated at the Northwest Regional Wastewater Treatment Plant (NRWTP). The NRWTP has resolved one Cease and Desist Order (CDO) from the RWQCB relating to storage capacity. A second CDO is in effect which addresses improvement needs in the collection system but does not contain a restriction on new service connections.

As the lead agency, Lake County's planning documents are particularly important for smart and efficient planning of wastewater infrastructure for LACOSAN.

LACOSAN is operated by the Lake County Special Districts Administration which manages three LACOSAN wastewater treatment plants along with the Kelseyville Waterworks District #3 wastewater treatment plant. All plants operate at a secondary level of treatment. The Northwest, Southeast, and Middletown Wastewater Treatment facilities transport treated effluent to the Geysers for injection.

LACOSAN has a preventive maintenance program including systematic inspection, cleaning, exercising, lubricating, adjusting, and testing components of the wastewater collection and treatment system. Various routine maintenance activities include pump station testing, smoke testing, inspection/cleaning easements, manhole monitoring, root control, mainline cleaning, valve exercising, wet well cleaning, auxiliary generators, alarm testing, by-pass equipment testing, and grease and odor control.

Corrective maintenance involves the immediate repair of system defects as their presence becomes known. Corrective maintenance scheduling is dependent upon the severity of the defect.

Customer-related issues and issues threatening the environment are of the highest priority and are scheduled immediately. Since repair of system failures cannot, by

definition, be scheduled, planning for corrective maintenance involves budgeting adequate funds for system repair, based on historical costs.

Repairs and upgrades to collection infrastructure within LACOSAN are performed on an as needed basis and as required by the Regional Water Quality Control Board. LACOSAN has recently made improvements to its wastewater collection and treatment system (Northwest System), including the replacement of Pump Stations No. 1 and No. 2, a new force main from Pump No. 2 to the treatment plant (capacity of 6.4 mgd), and installation of the Supervisory Control and Data Acquisition system (SCADA) which covers all 22 pump stations in the collection system.

The force main improvement between Pump Station No. 1 and the treatment plant replaced the original force main that was associated with several failures during 2002.

7.2.2 MSR Determinations on Infrastructure for LACOSAN

2-1) LACOSAN has Master Facility Plans for each wastewater treatment plant.

2-2) Master Plans for the Northwest and Southeast collection systems have been updated and are being implemented.

2-3) The LACOSAN wastewater collection and treatment system has historically experienced numerous problems with inundation (I&I) during periods of high groundwater or high Clear Lake water levels.

2-4) The inflow and infiltration (I&I) into the collection system results in substantial increases in flow to the treatment plant and disposal systems and has lead to the issuance of a Cease and Desist Order and a Cleanup and Abatement Order from the Regional Water Quality Control Board.

2-5) LACOSAN should continue to submit Semi-Annual Progress Reports to the RWQCB regarding improvements to their collection system to reduce I&I flows.

2-6) LACOSAN has completed (and is in the process of updating) wastewater collection system Master Plans to determine overall integrity and define the nature and extent of I&I during dry and wet weather as required by various Regional Water Quality Control Board orders.

2-7) The LACOSAN collection systems (Northwest Regional Wastewater System, Southeast Regional Wastewater System, and Middletown Wastewater Treatment Facility) appear to be marginally adequate to effectively transfer the wastewater flow from the approximate 26,985[100] residents in the District's boundaries to the wastewater treatment plants.

2-8) Treated effluent is disposed of primarily through the Geysers effluent pipeline by injection into the Southeast Geysers steamfield. Existing spray irrigation systems will be used for effluent disposal by irrigating fodder crops when required as a backup.

2-9) In the event the District fails to comply with the provisions of Cease and Desist Order No. R5-2005-0007, the matter may be referred to the Attorney General for judicial enforcement or the Regional Water Quality Control Board may issue a penalty for administrative civil liability to LACOSAN.

2-10) Seasonal variations, distinct user groups, and the abundance of second homes significantly influence available capacity in the LACOSAN collection and treatment system. LACOSAN can usually expect a slight jump in average dry weather flow during the summer vacation months. Master plans and facility improvement plans have considered the effects of seasonal variations.

2-11) Treatment capacity and collection system needs could increase as conversion from secondary (vacation) to primary (year-round) residences occurs.

2-12) LACOSAN should update facility plans for the treatment plants every five years and should continue to maintain and update the capital improvement program budget annually.

2-13) Total existing connections and connection capacity (based on current information) is as follows: The Northwest RWTP has 4,670 existing connections[101] and a total service capacity of 9,534 connections. The Southwest RWTP has 6,707 existing connections[102] and has a total service capacity of 13,405 connections.

2-14) The Middletown WTP has 733 existing connections[103] and has a total service capacity of 933 connections. LACOSAN is in the initial stages of increasing service capacity of the Middletown WTP including a collection system in the Anderson Springs area.

[100] Lake County Special Districts Administration, "Current Operations by Utility Area", 8/6/2010.
[101] Lake County Special Districts Administration, "Current Operations by Utility Area", 8/6/2010.
[102] Lake County Special Districts Administration, "Current Operations by Utility Area", 8/6/2010.
[103] Lake County Special Districts Administration, "Current Operations by Utility Area", 8/6/2010.

7.3 Financial Ability of LACOSAN

Purpose: To evaluate factors that affect the financing of needed improvements and to identify practices or opportunities that may help eliminate unnecessary costs without decreasing service levels

LAFCO should consider the ability of a district to pay for improvements or services associated with annexed sites. This planning can begin at the SOI stage by identifying infrastructure and maintenance needs associated with future annexation and development, and identifying limitations on financing such improvements.

7.3.1 Financial Background

In the past, LACOSAN has been held liable for numerous raw sewage spills and sewer overflows from the Southeast and Northwest Regional collection systems, resulting in direct discharges to Clear Lake and its tributaries (possibly including Molesworth Creek), in violation of RWQCB Waste Discharge Requirements (WDRs) (California Regional Water Quality Control Board, Notice of Violation, August 21, 2003).

Failure to meet compliance with WDRs has resulted in enforcement action by the RWQCB in the form of civil liabilities totaling $150,000 across years 2002-2003 (Cease and Desist Order No. R5-2003-0040). The Cleanup and Abatement Order for the Southeast WTP also has the potential for fines if the conditions are not met.

District personnel have been cross-trained to perform most duties in their respective utility areas. This provides for greater flexibility in both routine and emergency situations. Maintenance personnel receive training consistent with the California Water Pollution Control Association (CWPCA) guidelines for wastewater collection system workers.

All LACOSAN maintenance personnel currently hold the proper certification to run a wastewater system of this size and nature, including Treatment Plant Operators Certification (state), and Grade I, II, and III licenses.

LACOSAN has also developed a Water Conservation Ordinance originally adopted in 1995, and amended in 2004 (Ordinance 2291 adding Middletown, Land's End, Holiday Cove, Corinthian Bay, and South Lakeport) and 2005 (Ordinance 2291 adding Kelseyville). This Conservation Ordinance outlines an effective strategy to implement low water-use fixtures to aid in reducing water demand throughout the LACOSAN system.

LACOSAN has historically required a unique capacity analysis when accepting new connections serving 4 or more units. In the past, LACOSAN has required a capacity analysis by a third party engineer who independently determines any impacts to the respective treatment facility and recommends mitigation measures. The developer has historically been required to pay the cost of the engineer's analysis.

LACOSAN is now moving away from this practice, and is in the process of developing Hydraulic Models for their four treatment plants, with the Southeast Regional Treatment Plant Hydraulic Model already being used. LACOSAN still has a policy to have the developer pay the cost of running the Hydraulic Model, and to have the developer pay to

implement the mitigation measures, therefore passing 100% of the cost of the analysis onto the developer.

The fees imposed by LACOSAN for new connections and monthly service are based on a Consumer Price Index (CPI). LACOSAN uses a CPI to establish the rate structure to ensure that rates bear a reasonable nexus to the cost of providing wastewater collection and treatment services to the residents of Lake County. The Foresight Study was specific on needed rate increases. For each water and wastewater system, one has to review a series of tables and graphs to arrive at the total revenue needed to fully implement a 5-year Capital Improvement Program (CIP). In the current economic climate, it is nearly impossible to completely implement each system's CIP since full implementation of the Foresight Study would have required doubling of the rates.

The Special Districts Administration in Lake County bills every sewer district in advance, and mails user-fee statements every two months.

The Foresight Study has been noted in this report and will help LACOSAN to achieve a fair rate structure which will allow the necessary improvements to the system.

7.3.2 MSR Determinations on Financial Ability for LACOSAN

3-1) Based on the latest available information and notwithstanding unforeseen events, capacity expansion for LACOSAN facilities will be sufficiently funded through a combination of reserves, grants, loans, and system capacity fees.

3-2) Excepting the uncertainties of the funding authorization process, there appear to be no institutional or financial obstacles to funding necessary expansion of the respective systems.

3-3) Costs associated with new development are paid by private developers and are documented in the System Capacity Fees section of the Foresight Study.

3-4) Costs for infrastructure benefiting each facility are paid though service and connection fees.

3-5) Costs for emergency repairs are covered by the districts' operation and maintenance funds.

3-6) Operational costs for LACOSAN are covered by ratepayers based on the type of use.

3-7) LACOSAN should continue the policy that new development pays the entire cost of development of new infrastructure, including connection, expansion, and inspection fees to cover the costs for LACOSAN.

3-8) The budget process for LACOSAN provides a public forum for cutting unnecessary costs and placing resources where most needed.

3-9) LACOSAN should avoid violations of WDR requirements which carry costly penalties and fines.

3-10) Sludge (biosolids) are transported from the Northwest and Middletown Plants to the Southeast WTP for land application as required by the State Permit.

3-11) By keeping LACOSAN rates (monthly service fees, new connection fees) in line with the cost of providing county-wide wastewater collection and treatment services, the District is preventing excess costs to future customers.

3-12) The District is effectively reducing costs to the ratepayers in the long term by reducing the likelihood of encountering major system defects and catastrophic system failures.

3-13) LACOSAN and SDA will continue to explore potential efficiencies that could be achieved through shared facilities and other cost-sharing arrangements. Ideas that could be explored include shared corporation yards, equipment, and office space.

3-14) The cost of the employees cannot be significantly reduced.

3-15) Rates and fees for services have been established in accordance with the provisions in State Law.

3-16) LACOSAN's revenue sources include new connection fees and monthly user fees.

3-17) LACOSAN does not collect or benefit from any property tax revenue and receives no property tax revenue from the AB-8 allocation.

3-18) LACOSAN uses the Consumer Price Index (CPI) to annually adjust rates for its Northwest, Southeast, and Middletown treatment systems using the methodology included in the rate study. The district uses the Engineering News Record, Construction Cost Index to adjust system capacity fees for its Southeast system. Other systems will use this method in the future. All customers have an annual CPI adjustment made each February based on the previous year's inflation. If the number is "zero" or negative, the adjustment will be zero.

7.4 Shared Facilities

Purpose: To evaluate the opportunities for a jurisdiction to share facilities and resources to develop more efficient service delivery systems.

7.4.1 Shared Facilities Background

The Lake County Sanitation District (LACOSAN) is headquartered in Lakeport at the Lake County Special Districts Administration. Lake County Special Districts Administration is a County department funded by several dependent districts (districts whose board of directors is the Board of Supervisors). These districts provide water and wastewater services and vary in size, including several County Service Areas and the Kelseyville County Waterworks District #3. The District with the largest budget and most assets is LACOSAN.

The Special Districts Administration is able to share resources with other County departments for a variety of administrative, legal, and financial services. The district has 40 position allocations including administrative, financial, supervisory, and technical staff.

In addition to being a part of the Lake County Special Districts Administration, LACOSAN and various other partners are involved in an effluent recycling project at the Geysers geothermal steamfield which includes collecting wastewater and transporting it via a pipeline to the Northern California Power Association and Calpine geothermal power facilities.

LACOSAN follows the Lake County Emergency Contingency Plan, which involves a large number of local agencies located on the shores of Clear Lake and in the Lake County area in sewage spill emergency response planning.

Due to topography, the location of wastewater collection agencies, and the manner in which wastewater collection systems are designed, sharing facilities such as lift stations and wastewater collection infrastructure between service providers is difficult but is practiced as applicable. Sharing items such as specialized equipment, heavy machinery and vehicles is routine in the Lake County area.

7.4.2 MSR Determinations on Shared Facilities for LACOSAN

4-1) The Lake County Sanitation District (LACOSAN) is headquartered in Lakeport at the Lake County Special Districts Administration Office.

4-2) LACOSAN has a wastewater reuse program that involves conveying wastewater effluent via a 50-mile pipeline from its Wastewater Treatment plants to geothermal power plants in the Geysers.

4-3) A portion of the domestic sewage from the City of Lakeport (approximately 800 SFDs) is pumped to the Northwest WTP. In exchange, Lands End/South Lakeport wastewater flows (250 SFDs) go to the Lakeport Treatment Plant (CLMSD).

4-4) Additional opportunities for shared facilities between LACOSAN and individual municipal service providers are unlikely, since LACOSAN has expanded as far as the County operational limits and topography will allow.

4-5) Sharing facilities such as specialized equipment (i.e., specialized cleaning equipment, vehicles, etc.) is done in the Lake County area between LACOSAN and the other local wastewater collection and treatment providers as much as possible.

7.5 Government Structure and Accountability

Purpose: To consider the advantages and disadvantages of various government structures that could provide public services, to evaluate the management capabilities of the organization and to evaluate the accessibility and levels of public participation associated with the agency's decision-making and management processes.

LAFCO may consider the agency's record of local accountability in its management of community affairs as a measure of the ability to provide adequate services to the Sphere of Influence and proposed annexation areas.

7.5.1 Government Structure and Accountability Background

Based on the most recent budget information it appears that the provision of wastewater collection and treatment is managed in a cost-effective, efficient manner meeting the needs of the community. LACOSAN has accounting and finance departments, personnel regulations and ordinances. The Special Districts Administration has up-to-date audits in compliance with auditing standards for all Lake County Sanitation (LACOSAN) service and billing areas.

LACOSAN is governed by the five-member Lake County Board of Supervisors acting as the Board of Directors for the District. The District Board is responsible for setting policy and general administrative procedures for LACOSAN. The District has 40 employees. A sanitary district may provide garbage collection and disposal, wastewater treatment and disposal, water reclamation, and water recycling and distribution.

LACOSAN has developed and maintains numerous customer-oriented programs, including a mission statement (see below), various links on the Lake County website, a District Newsletter (that can be accessed on the website), and regular in-house safety and management training. LACOSAN staff-members are very well trained and possess the proper certifications for operating wastewater collection and treatment systems. The agencies are responsive to complaints and respond promptly to problems. If not during office hours, staff is available by pager and cell phone. Utility area staff are available 24 hours per day, 7 days per week.

LACOSAN is Lake County's public wastewater collection and treatment agency. County General Plan policies dictate that LACOSAN should coordinate programs of expansion with the County's proposed development patterns, so that they may provide these services more efficiently, and therefore avoid excess expense. LACOSAN has grown to include most of Lake County, and is not slated to expand any more. LACOSAN has, from time-to-time established Zones of Benefit under certain circumstances for various communities throughout the County.

LACOSAN follows the Lake County Mission Statement that reads as follows:

> *The County of Lake provides proactive public policy, superior public service, and courteous public contact, responsible exercise of authority and sound management of resources to enhance the quality of life for our citizens, now and in the future.*

The Lake County Board of Supervisors adjourns to meet as the Lake County Sanitation District Board of Directors. Regularly scheduled Board meetings are held on the first Tuesday of each month at the County Courthouse Board Chambers located in Lakeport. Agendas for Board Meetings are posted and notices provided consistent with public meeting requirements.

Lake County Special Districts Administration has developed a website found on the home page of the County of Lake website. This website offers information related to LACOSAN and Lake County wastewater treatment in general. This County website is a fine example of a government website, offering a wide variety of information that the average citizen can easily access.

7.5.2 MSR Determinations on Government Structure for LACOSAN

5-1) LACOSAN provides wastewater collection and treatment services, as described in detail in previous sections.

5-2) In most areas of the County, the Lake County Board of Supervisors has the authority to create Assessment Districts without LAFCO review.

5-3) LACOSAN functions well and is viable as a public County sanitation agency.

5-4) Merging or consolidating with other service providers or public agencies in the area would not be practicable or efficient.

5-5) The District has developed Facility Plans for its three wastewater treatment plants, and is in the process of preparing comprehensive Master Facilities Plans covering the collection systems of all four of the treatment plants.

5-6) Having one agency performing both collection and treatment services for a large portion of Lake County has resulted in an overall reduced cost of providing these services, with centralized maintenance and administration.

5-7) Centralized billing helps allocate costs based on zones of benefit, and efficiencies in maintenance personnel costs are realized.

5-8) LACOSAN has organizational charts that outline efficient service delivery functions. Personnel in various divisions are cross-trained to provide continuous service delivery.

5-9) LACOSAN has developed a Capital Improvements Plan for its wastewater treatment systems. Such a Plan will help significantly with funding infrastructure repairs and upgrades.

5-10) LACOSAN has been subject to regulatory action (including Cease and Desist Orders, a Cleanup and Abatement Order and an Executive Officer issued Administrative Civil Liability) over the last five to ten years.

5-11) To meet the legal requirements LACOSAN has made improvements to its wastewater collection system, including replacement of pump stations, installation of new force mains, and replacement of oxidation ditches with aerated lagoons (Cease and Desist Order No. R5-2003-0040).

5-12) While there is significant attendance by the general public at most Board of Supervisors meetings there is not much discussion and testimony regarding most items related to LACOSAN. The Board should schedule several meetings per year to examine the overall program and direction for LACOSAN in addition to the business items required.

5-13) LACOSAN complies with necessary regulations (i.e., the Brown Act) and has regularly scheduled meetings to which the public is invited.

5-14) Lake County maintains relationships with the local media and LACOSAN administration is accessible to ratepayers and the public.

5-15) LACOSAN budgets and rate changes are adopted at noticed public hearings to which the public is invited.

5-16) LACOSAN has made excellent use of its link to the Lake County website to foster public relations and participation and to information citizens on the District's activities.

5-17) The LACOSAN website contains information regarding Board meeting times and locations, agendas and rates, water conservation tips, and specific information about LACOSAN's four treatment plants. The website also includes a District Newsletter.

5-18) The Internet is a relatively low-cost yet powerful method of involving the general public/customers/ratepayers in agency affairs. Greater dissemination of information can lead to greater interest in attending Board meetings and participating in elections. It also allows the public, some of whom are not physically able to attend Board meetings, to follow District activities remotely from their home or business.

5-19) The website posts LACOSAN budget and fee information that is easily accessible to the public

5-20) The LACOSAN website offers links with information regarding smart water use, various methods to reduce water use throughout the home, and other water conservation tips. This site also contains an abundance of information about smart fat, oil, and grease (FOG) handling tips, as improper disposal of these household/commercial items has resulted in grease blockages causing raw sewage spills in the past.

Appendix A Foresight Study Tables

Current vs. New Bi-Monthly Residential Sewer Rates *(FY'08-09)*
Lake County Special Districts

	Current Bi-monthly Charges		Projected New Bi-Mo. Resid. Rates			
District	Basic Charge	Rate/Add'l.	% Incr. (a)	Basic Charge	Fixed Rate	Total
Southeast	$42.58	$42.58	18.0%	$3.46	$60.97	$64.44
Northwest	$44.20	$44.20	12.0%	$3.87	$64.61	$68.49
Kelseyville	$40.00	$40.00	30.0%	$3.82	$44.95	$48.77
Corinthian Bay	$24.62	$24.62	6.0%	$3.82	$40.46	$44.28
Middletown	$32.60	$32.60	20.0%	$5.08	$39.09	$44.18
South Lakeport/LE	$67.38	$67.38	4.0%	$9.35	$50.12	$59.47

a. % increase of total district rate revenue, not the residential rates shown here.

Summary - Projected Net Revenue Requirements by Sewer System
Lake County Special Districts

		Projected Revenue Requirements (a)				
Sewer System	Budget	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Southeast	$2,845,742	$2,931,358	$3,231,317	$3,474,990	$3,625,969	$3,783,477
Northwest	$2,089,490	$2,165,987	$2,399,865	$2,587,142	$2,698,136	$2,813,890
Kelseyville	$226,675	$355,362	$421,844	$466,055	$476,634	$487,074
Corinthian Bay	$30,143	$33,815	$46,973	$55,594	$56,660	$57,686
Middletown	$414,356	$287,858	$325,226	$351,079	$359,372	$368,595
South Lakeport/L.E.	$143,451	$132,385	$165,582	$179,879	$184,048	$188,177
Total Revenue	$5,749,857	$5,906,765	$6,590,807	$7,114,739	$7,400,819	$7,698,899
New Debt Service as a % of Total		*7.0%*	*12.5%*	*15.1%*	*14.6%*	*14.0%*

a. Revenues are from Appendix Tables SB-SE1 through SB-SL1.

Summary - Sewer Revenue Reqt's. & Rate Revenue by System *(FY'08-09)*
Lake County Special Districts

	(1)	(2)	(3)	(4)
	FY'08-09	Revenue -	**Revenue**	% Rate
District	Revenue Reqt's.	Current Rates	**New Rates**	Increase (a)
Southeast	$2,931,358	$1,787,000	**$2,108,660**	18.0%
Northwest	$2,165,987	$1,547,000	**$1,732,640**	12.0%
Kelseyville	$355,362	$212,900	**$276,770**	30.0%
Corinthian Bay	$33,815	$19,500	**$29,250**	50.0%
Middletown	$287,858	$125,000	**$150,000**	20.0%
South Lakeport/L.E.	$132,385	$100,000	**$112,000**	12.0%
Total Revenue	$5,906,765	$3,791,400	**$4,409,320**	16.3%

a. Increase from "Revenue - Current Rates" to "Revenue from New Rates." From the financial plans for each System.
b. Percent change from "FY'08-09 Revenue Requirements" to the "Revenue from New Rates."

Projected Revenue from Recommended Sewer Rate by Sewer System

Lake County Special Districts

Sewer System	Projected Revenue from Rate Increases (a)				
	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Southeast	*$2,108,660*	*$2,488,219*	*$2,936,098*	*$3,347,152*	*$3,547,981*
Northwest	*$1,732,640*	*$1,940,557*	*$2,134,612*	*$2,348,074*	*$2,582,881*
Kelseyville	*$276,770*	*$359,801*	*$467,741*	*$467,741*	*$467,741*
Corinthian Bay	*$29,250*	*$42,413*	*$59,378*	*$59,378*	*$59,378*
Middletown	*$150,000*	*$172,500*	*$198,375*	*$222,180*	*$244,398*
South Lakeport/L.E.	*$112,000*	*$125,440*	*$143,002*	*$163,022*	*$185,845*
Total Revenue	*$4,409,320*	*$5,128,929*	*$5,939,206*	*$6,607,546*	*$7,088,224*
% Year-to-Year Increase	*18.3%*	*16.3%*	*15.8%*	*11.3%*	*7.3%*

a. Revenues are from the financial plans for each district shown in the Appendix.

Summary of Sewer System CIP Costs *(FY'08-09 through FY'12-13)*

Lake County Special Districts

	Projected CIP Costs ($2008) (a)					
	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Southeast						
SSMP & Other Rehab.	$130,000	$130,000	$130,000	$130,000	$130,000	$650,000
Plant Upgrades	$1,141,000	$1,141,000	$1,141,000	$1,141,000	$1,141,000	$5,705,000
Total	$1,271,000	$1,271,000	$1,271,000	$1,271,000	$1,271,000	$6,355,000
Northwest						
SSMP & Other Rehab.	$80,000	$80,000	$80,000	$80,000	$80,000	$400,000
Plant Upgrades	$960,000	$960,000	$960,000	$960,000	$960,000	$4,800,000
Total	$1,040,000	$1,040,000	$1,040,000	$1,040,000	$1,040,000	$5,200,000
Kelseyville						
SSMP & Other Rehab.	$56,800	$56,800	$56,800	$56,800	$56,800	$284,000
Plant Upgrades	$392,900	$392,900	$392,900	$392,900	$392,900	$1,964,500
Total	$449,700	$449,700	$449,700	$449,700	$449,700	$2,248,500
Corinthian Bay						
SSMP & Other Rehab.	$76,000	$76,000	$76,000	$76,000	$76,000	$380,000
Plant Upgrades	$22,100	$22,100	$22,100	$22,100	$22,100	$110,500
Total	$98,100	$98,100	$98,100	$98,100	$98,100	$490,500
Middletown						
SSMP & Other Rehab. *(b)*	$55,000	$55,000	$55,000	$55,000	$55,000	$275,000
Plant Upgrades	$173,000	$173,000	$173,000	$173,000	$173,000	$865,000
Total	$228,000	$228,000	$228,000	$228,000	$228,000	$1,140,000
South Lakeport/L.E.						
SSMP & Other Rehab.	$88,000	$88,000	$88,000	$88,000	$88,000	$440,000
Plant Upgrades	$43,500	$43,500	$43,500	$43,500	$43,500	$217,500
Total	$131,500	$131,500	$131,500	$131,500	$131,500	$657,500

a. Source: Special Districts Administration (4-29-08, 5-15-08 & 6-24-08), State Water Resources Control Board, Regional Water Quality Control Board, CH2M Hill, and Water Works Engineers.

Estimated Financed Portion of Recommended Sewer System CIP Costs
Lake County Special Districts

	% Debt-Funded (a)	% of Total Debt (b)	Recommended Debt-Funded CIP Costs					
			2008-09	2009-10	2010-11	2011-12	2012-13	Total
Southeast	*100%*	*39.5%*	$1,271,000	$1,271,000	$1,271,000	$1,271,000	$1,271,000	$6,355,000
Northwest	*100%*	*32.3%*	$1,040,000	$1,040,000	$1,040,000	$1,040,000	$1,040,000	$5,200,000
Kelseyville	*100%*	*14.0%*	$449,700	$449,700	$449,700	$449,700	$449,700	$2,248,500
Corinthian Bay	*100%*	*3.0%*	$98,100	$98,100	$98,100	$98,100	$98,100	$490,500
Middletown	*100%*	*7.1%*	$228,000	$228,000	$228,000	$228,000	$228,000	$1,140,000
South Lakeport/L.E.	*100%*	*4.1%*	$131,500	$131,500	$131,500	$131,500	$131,500	$657,500
Total	*100.0%*	*100.0%*	**$3,218,300**	**$3,218,300**	**$3,218,300**	**$3,218,300**	**$3,218,300**	**$16,091,500**

a. Percent of each system's CIP costs that are funded by debt.
b. Each sewer system's CIP costs as a percent of the total debt for all systems.

Estimated Debt Service Payments for Recommended Sewer System CIP Costs
Lake County Special Districts

	% Debt Funded (a)	Projected Debt Service for Recommended Debt-Funded CIP Costs (b)						
		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Southeast	*39.5%*	$162,294	$324,587	$424,106	$425,741	$426,985	$427,838	$2,191,551
Northwest	*32.3%*	$132,797	$265,595	$347,026	$348,364	$349,382	$350,080	$1,793,244
Kelseyville	*14.0%*	$57,422	$114,844	$150,055	$150,634	$151,074	$151,376	$775,406
Corinthian Bay	*3.0%*	$12,526	$25,053	$32,734	$32,860	$32,956	$33,022	$169,151
Middletown	*7.1%*	$29,113	$58,226	$76,079	$76,372	$76,595	$76,748	$393,134
South Lakeport/L.E.	*4.1%*	$16,791	$33,582	$43,879	$44,048	$44,177	$44,265	$226,742
Total - Debt Service (c)	*100.0%*	**$410,944**	**$821,887**	**$1,073,879**	**$1,078,019**	**$1,081,169**	**$1,083,329**	**$5,549,228**

a. Represents each District's share of the total debt-funded CIP costs.
b. 30-year revenue bonds at 5.5%. Source: Northcross Hill & Ach analysis, March 17, 2008.

Percent of New Residential Sewer Rates Used for CIP Costs *(FY'08-09)*
Lake County Special Districts

Sewer System	% of Rate Rev. Used for CIP (a)
Southeast Regional System	**26%**
Northwest Regional System	**24%**
Kelseyville CWWD #3	**21%**
Corinthian Bay (AD 9-2)	**43%**
Middletown Sanitation District	**19%**
S. Lakeport/Lands End	**15%**

a. Estimated debt service divided by financial plan rate revenue.

Sewer System Capacity Fees (SCF's)
Lake County - Special Districts

District	Costs Allocated to Growth (2008 $'s) (a)	Number of New Dwelling Units (EDU's) (b)	Calculated SCF ($/EDU) (c)	Current SCF ($/EDU)	Difference: Calculated SCF less Current SCF
Southeast	$9,260,439	2,517	**$3,680**	$4,488	($808)
Northwest	$9,643,662	836	**$11,540**	$4,488	$7,052
Kelseyville	$9,659,260	552	**$17,510**	$4,388	$13,122
Middletown	$4,400,032	257	**$17,130**	$4,488	$12,642
South Lakeport/L.E.	$805,864	173	**$4,660**	NA	NA

a. From Appendix Table SCF-S3.
b. Available growth capacity over the next 20 years. From Appendix Table SCF-S2. Source: Criterion Planners, Build-Out Analysis, April 2006, revised to be consistent with the 2008 General Plan Update by Lake County Community Development Department.
c. Costs Allocated to Growth divided by Number of New Dwelling Units. SCF is rounded to the nearest $10.

Northwest

Table SFP-NW1
Sewer Utility Financial Plan - Northwest Regional System (LACOSAN #3)
Lake County Special Districts

	Estimated	Projected Rev. Reqt's., Rate Increases and Rate Revenue				
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Net Revenue Requirements (a)	($2,089,490)	($2,165,987)	($2,399,865)	($2,587,142)	($2,698,136)	($2,813,890)
Annual % Increase over Previous Year	*16.7%*	*3.7%*	*10.8%*	*7.8%*	*4.3%*	*4.3%*
Base Case - Current Rates with No Increases						
Revenue from Current Rates (a)	$1,547,000	$1,547,000	$1,547,000	$1,547,000	$1,547,000	$1,547,000
less Net Revenue Reqt's.	($2,089,490)	($2,165,987)	($2,399,865)	($2,587,142)	($2,698,136)	($2,813,890)
Year-End Surplus (Deficit)	($542,490)	($618,987)	($852,865)	($1,040,142)	($1,151,136)	($1,266,890)
Proposed Financial Plan - Sewer Rate Increases						
Rate Increases		12%	12%	10%	10%	10%
Revenue from Current Rates (a)	$1,547,000	$1,547,000	$1,547,000	$1,547,000	$1,547,000	$1,547,000
Rate Revenue from Rate Increases:						
		$185,640	$185,640	$185,640	$185,640	$185,640
			$207,917	$207,917	$207,917	$207,917
				$194,056	$194,056	$194,056
					$213,461	$213,461
						$234,807
Revenue from Rate Increases	**$0**	**$185,640**	**$393,557**	**$587,612**	**$801,074**	**$1,035,881**
Projected Rate Revenue (w/ Rate Increases)	$1,547,000	$1,732,640	$1,940,557	$2,134,612	$2,348,074	$2,562,881
less Net Revenue Reqt's.	($2,089,490)	($2,165,987)	($2,399,865)	($2,587,142)	($2,698,136)	($2,813,890)
Year-End Surplus (Deficit)	($542,490)	($433,347)	($459,308)	($452,530)	($350,062)	($231,009)

a. From Table SB-NW1, Sewer System Budget Projections and Revenue Requirements - Northwest Regional System.

Table SFP-NW2
Summary of Projected Sewer Reserve Fund Levels - Northwest Regional System (LACOSAN #3)
Lake County Special Districts

	Estimated	Projected Reserve Funds				
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Sewer Operations Fund (Cash)						
Beginning Fund Balance	$0	$770,383	$423,343	$229,035	$123,505	$121,443
Sewer Rate Revenue Surplus (Deficit) (a)	$0	($433,347)	($459,308)	($452,530)	($350,062)	($231,009)
Transfers from CIP Fund	$0	$0	$265,000	$347,000	$348,000	$350,000
Transfers to R&R Fund	$0	$0	$0	$0	$0	$0
Year-End Fund Balance (b)	**$0**	**$423,343**	**$229,035**	**$123,505**	**$121,443**	**$240,434**
Sewer Capital Improvement Fund (CIP)						
Beginning Fund Balance	$0	$0	$463,099	$416,599	$286,299	$149,799
Cap Fee Revenue	$0	$0	$200,000	$200,000	$200,000	$200,000
Transfer to Operations Fund	$0	$0	($265,000)	($347,000)	($348,000)	($350,000)
Investment Earnings	$0	$0	$18,500	$16,700	$11,500	$5,000
Year-End Fund Balance (b)	**$0**	**$463,099**	**$416,599**	**$286,299**	**$149,799**	**$5,799**
Sewer Repair & Replacement Fund (R&R)						
Beginning Fund Balance (a)	$0	$0	$165,917	$172,517	$179,417	$186,617
Transfer from Operations Fund	$0	$0	$0	$0	$0	$0
Investment Earnings	$0	$0	$6,600	$6,900	$7,200	$7,500
Year-End Fund Balance (b)	**$0**	**$165,917**	**$172,517**	**$179,417**	**$186,617**	**$194,117**
Combined Sewer Funds Balance	**$0**	**$1,052,359**	**$818,151**	**$589,221**	**$457,859**	**$440,350**
General Inflation Escalator	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*
Interest Earnings Rate	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*
Approx. Coverage Ratio (c)		*792%*	*305%*	*170%*	*131%*	*105%*

a. From Table SFP-NW1, Sewer Utility Financial Plan - Northwest Regional System (LACOSAN #1).
b. FY'08-09 year-end fund balance from County's Form 7 "Total Reserves Proposed for FY'08-09". Allocation between LACOSAN #1 and #3 is by % of operating expenses shown in Tables SB-SE1 and SB-NW1.
c. Planning-level coverage ratio calculation: total ending reserve funds divided by annual debt service for new revenue bonds.

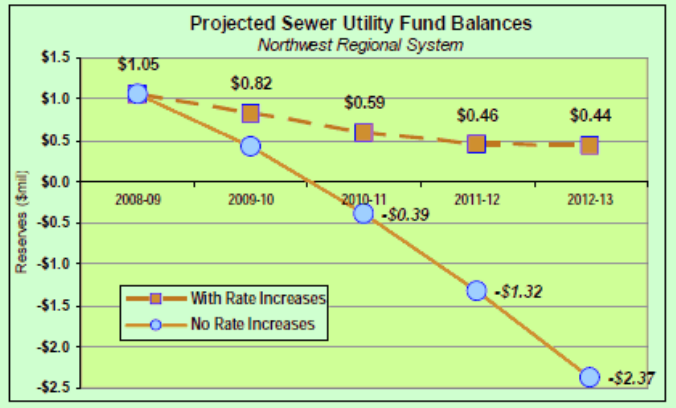


Table CA-NW1

Sewer Cost Allocations by Functional Component - Northwest Regional System (LACOSAN #3) (FY'08-09)

Lake County Special Districts

Sewer Operations Fund	2008-09 Budget (a)	Allocated Costs: Account/ Customer	Other Fixed	Flow-Related	BOD-Related	TSS-Related	Percent Allocations: Account/ Customer	Other Fixed	Flow-Related	BOD-Related	TSS-Related
Operating Expenditures											
Collection	$497,173	$0	$0	$497,173	$0	$0	0%	0%	100%	0%	0%
Treatment	$693,486	$0	$0	$485,440	$104,023	$104,023	0%	0%	70%	15%	15%
Disposal	$597,811	$0	$0	$538,030	$29,891	$29,891	0%	0%	90%	5%	5%
Admin	$473,759	$94,752	$47,376	$236,879	$47,376	$47,376	20%	10%	50%	10%	10%
Subtotals	$2,262,229	$94,752	$47,376	$1,757,522	$181,289	$181,289	4.2%	2.1%	77.7%	8.0%	8.0%
CIP Expenditures (b)											
Fixed Assets (Cash-Funded)	$279,020	$0	$0	$279,020	$0	$0	0%	0%	100%	0%	0%
Pay-As-You-Go (Cash Funded)	$0	$0	$0	$0	$0	$0	0%	0%	100%	0%	0%
Debt Funded (Debt Service)	$132,797	$0	$0	$92,958	$13,280	$26,559	0%	0%	70%	10%	20%
Subtotals	$411,817	$0	$0	$371,978	$13,280	$26,559	0.0%	0.0%	90.3%	3.2%	6.4%
Non-Rate Expenses											
less Other Revenue	($508,059)	($21,280)	($10,640)	($394,710)	($40,715)	($40,715)	4.2%	2.1%	77.7%	8.0%	8.0%
Subtotals	($508,059)	($21,280)	($10,640)	($394,710)	($40,715)	($40,715)	4%	2%	78%	8%	8%
Total System Revenue Reqt's.	**$2,165,987**	**$73,472**	**$36,736**	**$1,734,790**	**$153,855**	**$167,134**	**3.4%**	**1.7%**	**80.1%**	**7.1%**	**7.7%**
Fixed/Variable Allocations		*$110,208*			*$2,055,779*		*5.1%*			*94.9%*	

a. From Table SB-NW1, Sewer System Budget Projections and Revenue Requirements - Northwest Regional System.
b. Allocations are based on the CIP projects shown in the Final CIP Worksheet from Special District Administration staff, 12-7-07, with Foresight revisions.

Table COS-NW1

Total Flow, Loadings, Rev. Reqt's. & Unit Costs - Northwest Regional System *(FY'08-09)*

Lake County Special Districts

	Fixed Costs: Customer	Other Fixed	Variable Costs: Flow (a)	BOD Costs	TSS Costs	Total Rev. Req't.
Allocated Rev. Reqt's (a)	$58,811	$29,405	$1,388,609	$123,153	$133,782	$1,733,760
Customers, Flow & Loadings (b)						
No. of Services	3,800	--	--	--	--	--
No. of Services	--	3,800	--	--	--	--
Flow *(hcf/yr)*	--	--	505,039	--	--	--
BOD *(lbs/yr)*	--	--	--	938,050	--	--
TSS *(lbs/yr)*	--	--	--	--	1,129,081	--
Unit Costs ($/year/unit) (c)	**$15.48/acct.**	**$7.74/acct.**	**$2.750/hcf**	**$0.1313/lb.**	**$0.1185/lb.**	--

a. From Table CA-NW1, Sewer Cost Allocations by Functional Component - Northwest Regional System (FY'08-09).
b. From Table L-NW1, Customer Accounts & Estimated Flow & Loadings - Northwest Regional System (FY'08-09).
c. Allocated revenue requirement divided by the units of the flow or loading parameter.

Table COS-NW2

Revenue Requirements & Monthly Rates by Customer Class - Northwest Regional System *(FY'08-09)*

Lake County Special Districts

Customer Classes	Customer Costs			Other Fixed Costs			Flow-Related Costs		
	Number of Accounts *(b)*	Unit Cost $/Acct./2 mo.*(c)*	Annual Rev. Req't.*(d)*	Number of Acct's (b)	Unit Cost $/Acct/2 mo.(c)	Annual Rev. Req't.*(d)*	Effluent (hcf/yr) *(e)*	Unit Cost ($/hcf) *(c)*	Annual Rev. Req't.*(d)*
Residential *(a)*	3,628	$2.5794	$56,149	3,628	$1.2897	$28,074	440,124	$2.750	$1,210,126
Low-Strength Commercial									
1 Professional Office	50	$2.579	$774	50.0	$0.64	$387	6,319	$2.750	$17,375
2 Car Wash	0	$2.579	$0	0.0	$0.00	$0	0	$2.750	$0
3 Schools w/o Cafeteria	0	$2.579	$0	0.0	$0.00	$0	0	$2.750	$0
4 Laundromat	9	$2.579	$139	9.0	$0.64	$70	6,190	$2.750	$17,019
5 Beauty Shop	0	$2.579	$0	0.0	$0.00	$0	0	$2.750	$0
6 Dept./Small Retail	0	$2.579	$0	0.0	$0.00	$0	0	$2.750	$0
7 Theaters	0	$2.579	$0	0.0	$0.00	$0	0	$2.750	$0
Medium-Strength Commercial									
8 Schools w/ Cafeteria	6	$2.579	$93	6.0	$0.64	$46	5,471	$2.750	$15,041
9 Service Stations	5	$2.579	$77	5.0	$0.64	$39	3,946	$2.750	$10,849
10 Bars w/o Dining	0	$2.579	$0	0.0	$0.00	$0	0	$2.750	$0
11 Church/Fraternal/Clubhouse	10	$2.579	$155	10.0	$0.64	$77	943	$2.750	$2,593
12 Hospital/Conval. Home	5	$2.579	$77	5.0	$0.64	$39	7,155	$2.750	$19,674
13 Hotel/Motel w/o Dining	11	$2.579	$170	11.0	$0.64	$85	1,631	$2.750	$4,483
14 Misc. Commercial	40	$2.579	$619	40.0	$0.64	$310	5,282	$2.750	$14,523
High-Strength Commercial									
15 Hotel/Motel w/ Dining	24	$2.579	$371	24.0	$0.64	$186	1,602	$2.750	$4,406
16 Markets w/o grinders	3	$2.579	$46	3.0	$0.64	$23	283	$2.750	$778
17 Markets w/ grinders	0	$2.579	$0	0.0	$0.00	$0	0	$2.750	$0
18 Short Order/Take-out	0	$2.579	$0	0.0	$0.00	$0	0	$2.750	$0
19 Restaurants	5	$2.579	$77	5.0	$0.64	$39	25,844	$2.750	$71,057
20 Septage Dump	4	$2.579	$62	4.0	$0.64	$31	249	$2.750	$685
Subtotal - Non-Resid.	172	--	$2,662	172.0	--	$1,331	64,914	--	$178,483
Total - Resid. & Non-Res.	3,800	--	$58,811	3,800.0	--	$29,405	505,039	--	$1,388,609

Table COS-NW2 (cont.)

Customer Classes	BOD-Related Costs: Units of BOD (lbs/yr) (e)	BOD-Related Costs: Unit Cost ($/lb) (c)	BOD-Related Costs: Annual Rev. Req't.(d)	TSS-Related Costs: Units of TSS (lbs/yr) (e)	TSS-Related Costs: Unit Cost ($/lb) (c)	TSS-Related Costs: Annual Rev. Req't.(d)	Summary of Costs: Cust. & Other Fixed (f)	Summary of Costs: Flow, BOD, & TSS (g)	Summary of Costs: Total Rev. Req't's.
Residential (a)	679,652	$0.1313	$89,229	889,951	$0.1185	$105,448	$84,223	$1,404,803	$1,489,026
Low-Strength Commercial								($/hcf)	
1 Professional Office	6,041	$0.1313	$793	4,868	$0.1185	$577	$1,161	$18,745	$19,906
2 Car Wash	0	$0.1313	$0	0	$0.1185	$0	$0	$0	$0
3 Schools w/o Cafeteria	0	$0.1313	$0	0	$0.1185	$0	$0	$0	$0
4 Laundromat	6,827	$0.1313	$896	6,556	$0.1185	$777	$209	$18,692	$18,901
5 Beauty Shop	0	$0.1313	$0	0	$0.1185	$0	$0	$0	$0
6 Dept./Small Retail	0	$0.1313	$0	0	$0.1185	$0	$0	$0	$0
7 Theaters	0	$0.1313	$0	0	$0.1185	$0	$0	$0	$0
Medium-Strength Commercial									
8 Schools w/ Cafeteria	6,839	$0.1313	$898	6,848	$0.1185	$811	$139	$16,751	$16,890
9 Service Stations	5,223	$0.1313	$686	10,638	$0.1185	$1,260	$116	$12,795	$12,911
10 Bars w/o Dining	0	$0.1313	$0	0	$0.1185	$0	$0	$0	$0
11 Church/Fraternal/Clubhouse	1,457	$0.1313	$191	1,907	$0.1185	$226	$232	$3,011	$3,243
12 Hospital/Conval. Home	13,154	$0.1313	$1,727	6,890	$0.1185	$816	$116	$22,217	$22,333
13 Hotel/Motel w/o Dining	3,717	$0.1313	$488	1,884	$0.1185	$223	$255	$5,194	$5,450
14 Misc. Commercial	8,156	$0.1313	$1,071	10,680	$0.1185	$1,265	$929	$16,859	$17,788
High-Strength Commercial									
15 Hotel/Motel w/ Dining	5,891	$0.1313	$773	9,257	$0.1185	$1,097	$557	$6,276	$6,833
16 Markets w/o grinders	1,165	$0.1313	$153	1,526	$0.1185	$181	$70	$1,112	$1,181
17 Markets w/ grinders	0	$0.1313	$0	0	$0.1185	$0	$0	$0	$0
18 Short Order/Take-out	0	$0.1313	$0	0	$0.1185	$0	$0	$0	$0
19 Restaurants	190,040	$0.1313	$24,950	149,305	$0.1185	$17,691	$116	$113,698	$113,814
20 Septage Dump	9,888	$0.1313	$1,298	28,771	$0.1185	$3,409	$93	$5,392	$5,485
Subtotal - Non-Resid.	258,398	--	$33,924	239,130	--	$28,334	$3,993	$240,741	$244,734
Total - Resid. & Non-Res.	938,050	--	$123,153	1,129,081	--	$133,782	$88,216	$1,645,544	$1,733,760

a. Represents all residential classes shown in Table COS-NW1, Customer Accounts & Estimated Flow & Loadings - Northwest Regional System (FY'08-09).
b. From Special District Administration's billing records (see Table L-NW1, Customer Accounts & Estimated Flow & Loadings - Northwest Regional System).
c. From Table COS-NW1, Total Flow, Loadings, Rev. Reqt's. & Unit Costs - Northwest Regional System (FY'08-09).
d. Units times unit costs.
e. From Table L-NW1, Customer Accounts & Estimated Flow & Loadings - Northwest Regional System.
f. Total annual Customer Costs and Other Fixed Costs.
g. Total annual revenue requirements per customer class excluding Customer Costs and Other Fixed Costs.

Table COS-NW3

Summary of Monthly Rates by Customer Class - Northwest Regional System *(FY'08-09)*

Lake County Special Districts

	Basic Charge (a)	Bi-Mo. Fixed Rate (b)		Volume Rates			
Residential	($/acct./2 mo.)	EDU Factor (c)	($/EDU/2 mo.)	Rev. Regt. (d)	Water Use (e)	Vol. Rate (f)	Description
1 Single-Family	$3.87	100%	$64.54	--	--	--	
2 Duplex/Triplex/MH	$3.87	90%	$58.08	--	--	--	
3 Apartments	$3.87	70%	$45.17	--	--	--	
4 Trailer Space	$3.87	20%	$12.91	--	--	--	
5 Vacant	$3.87	100%	$64.54	--	--	--	
Low-Strength Commercial						($/hcf water use)	
1 Professional Office	$3.87	73%	$47.04	$18,745	9,028	$33.18	*1 EDU = 24 employees*
2 Car Wash	$3.87	73%	$46.99	$0	0	$3.85	*Based on Current EDU's*
3 Schools w/o Cafeteria	$3.87	74%	$47.50	$0	0	$3.89	*1 EDU = 40 students*
Schools w/o Cafeteria (per student)	--	--	$1.19	--	--	--	
4 Laundromat	$3.87	74%	$48.04	$18,692	8,927	$176.01	*1 machine = 1.25 EDU (or 1 EDU = 0.8 machines)*
5 Beauty Shop	$3.87	74%	$48.04	$0	0	$0.00	*1 EDU = 2 stations*
6 Dept./Small Retail	$3.87	76%	$48.96	$0	0	$4.01	*Based on Current EDU's*
7 Theaters	$3.87	76%	$48.96	$0	0	$4.01	*1 EDU = 100 seats*
Medium-Strength Commercial							
8 Schools w/ Cafeteria	$3.87	76%	$48.80	$16,751	7,815	$4.00	*1 EDU = 17 students*
Schools w/ Cafeteria (per student)	--	--	$1.95	--	--	--	
9 Service Stations	$3.87	81%	$52.41	$12,795	5,637	$2.58	*A 3-pump island = 1.67 EDU*
10 Bars w/o Dining	$3.87	79%	$50.87	$0	0	$4.17	*1 EDU = 15 seats*
11 Church/Fraternal/Clubhouse	$3.87	79%	$51.25	$3,011	1,347	$4.20	*1 EDU = 500 seats*
12 Hospital/Conval. Home	$3.87	76%	$49.32	$22,217	10,222	$6.06	*1 bed = 0.67 EDU*
13 Hotel/Motel w/o Dining	$3.87	79%	$50.69	$5,194	2,329	$9.97	*1 unit = 0.42 EDU's (or 1 EDU = 2.38 units)*
Hotel/Motel w/o Dining (per unit)	--	--	$21.29	--	--	--	
14 Misc. Commercial	$3.87	79%	$51.25	$16,859	7,546	$37.06	*Based on Current EDU's*
High-Strength Commercial							
15 Hotel/Motel w/ Dining	$3.87	100%	$64.65	$6,276	2,289	$15.90	*1 unit = 0.5 EDU's (or 1 EDU = 2.0 units)*
Hotel/Motel w/ Dining (per unit)	--	--	$21.33	--	--	--	
16 Markets w/o grinders	$3.87	100%	$64.64	$1,112	404	$5.30	*Based on Current EDU's*
17 Markets w/ grinders	$3.87	114%	$73.82	$0	0	$6.05	*Based on Current EDU's*
18 Short Order/Take-out	$3.87	98%	$63.53	$0	0	$0.00	*1 EDU = 70 seats*
Short Order/Take-out (per seat)	--	1.4%	$0.89	--	--	--	
19 Restaurants	$3.87	112%	$72.24	$113,698	36,919	$5.92	*1 EDU = 33 seats*
Restaurants (per seat over 33)	--	3%	$2.17	--	--	--	
20 Septage Dump	$3.87	--	--	--	--	--	
Septage Dump (per 1,000 gals.)	--	--	--	--	--	$22.10	

a. Basic Charges are applied to each account, but not additional EDU's, and include customer and other fixed costs.
b. Represents all revenue requirements not included in the Basic Charge, and is charged based on the number of EDU's.
c. Shows the percent of a full Single-Family (or EDU) rate based on the amount of effluent and the wastewater strength (BOD and TSS).
d. Revenue requirements for Flow, BOD and TSS from Table COS-NW2, Revenue Requirements & Monthly Rates by Customer Class - Northwest Regional System (FY'08-09).
e. From Table COS-NW1, Total Flow, Loadings, Rev. Reqt's. & Unit Costs - Northwest Regional System (FY'08-09).
f. These are volume charges per hcf of water shown in Table L-NW1, Customer Accounts & Estimated Flow & Loadings - Northwest Regional System.

Table COS-NW4

Calculation of Commercial Bi-Monthly Fixed Rates Per EDU - Northwest Regional System *(FY'08-09)*

Lake County Special Districts

Customer Classes	EDU *(SFD's)*	Equivalent Treatment Factors *(a)*			Treatment Costs/EDU ($/2 mo.)*(b)*			Fixed Rate per EDU *(c)*
		Avg. hcf/EDU	BOD/EDU	TSS/EDU	Flow (hcf/yr)	BOD (lbs/yr)	TSS (lbs/yr)	
Residential	4,666	*100.0%*	*100.0%*	*100.0%*	*$43.22*	*$3.19*	*$4.84*	*$51.25*
Low-Strength Commercial	119.5							
1 Professional Office		100.0%	61.9%	38.1%	$43.222	$1.973	$1.845	$47.04
2 Car Wash		100.0%	9.5%	71.4%	$43.222	$0.304	$3.460	$46.99
3 Schools w/o Cafeteria		100.0%	61.9%	47.6%	$43.222	$1.973	$2.307	$47.50
Schools w/o Cafeteria (per student)		100.0%	61.9%	47.6%	$1.081	$0.049	$0.058	$1.19
4 Laundromat		100.0%	71.4%	52.4%	$43.222	$2.276	$2.537	$48.04
5 Beauty Shop		100.0%	71.4%	52.4%	$43.222	$2.276	$2.537	$48.04
6 Dept./Small Retail		100.0%	71.4%	71.4%	$43.222	$2.276	$3.460	$48.96
7 Theaters		100.0%	71.4%	71.4%	$43.222	$2.276	$3.460	$48.96
Medium-Strength Commercial	303.4							
8 Schools w/ Cafeteria		100.0%	81.0%	61.9%	$43.222	$2.580	$2.999	$48.80
Schools w/ Cafeteria (per student)		100.0%	81.0%	61.9%	$1.729	$0.103	$0.120	$1.95
9 Service Stations		100.0%	85.7%	133.3%	$43.222	$2.732	$6.459	$52.41
10 Bars w/o Dining		100.0%	95.2%	95.2%	$43.222	$3.035	$4.614	$50.87
11 Church/Fraternal/Clubhouse		100.0%	100.0%	100.0%	$43.222	$3.187	$4.844	$51.25
12 Hospital/Convalt. Home		100.0%	119.0%	47.6%	$43.222	$3.794	$2.307	$49.32
13 Hotel/Motel w/o Dining		100.0%	147.6%	57.1%	$43.222	$4.705	$2.768	$50.69
Hotel/Motel w/o Dining (per unit)		100.0%	147.6%	57.1%	$18.153	$1.976	$1.163	$21.29
14 Misc. Commercial		100.0%	100.0%	100.0%	$43.222	$3.187	$4.844	$51.25
High-Strength Commercial	331.1							
15 Hotel/Motel w/ Dining		100.0%	238.1%	285.7%	$43.222	$7.588	$13.841	$64.65
Hotel/Motel w/ Dining (per unit)		100.0%	238.1%	285.7%	$14.263	$2.504	$4.567	$21.33
16 Markets w/o grinders		100.0%	266.7%	266.7%	$43.222	$8.499	$12.918	$64.64
17 Markets w/ grinders		100.0%	381.0%	381.0%	$43.222	$12.141	$18.454	$73.82
18 Short Order/Take-out		100.0%	333.3%	200.0%	$43.222	$10.623	$9.688	$63.53
Short Order/Take-out (per seat)		100.0%	333.3%	200.0%	$0.605	$0.149	$0.136	$0.89
19 Restaurants		100.0%	476.2%	285.7%	$43.222	$15.176	$13.841	$72.24
Restaurants (per seat over 33)		100.0%	476.2%	285.7%	$1.297	$0.455	$0.415	$2.17
20 Septage Dump *(d)*		--	--	--	--	--	--	--
Septage Dump (per 1,000 gals.)		--	--	--	--	--	--	$22.10

a. This is the percentage of residential effluent flow and strength and is used to determine the fixed rate for each commercial customer. The BOD and TSS factors reflect the BOD and TSS differences between each commercial class and the residential class.
b. Based on the *"Equivalent Treatment Factor"*, this is the cost per unit for flow, BOD and TSS that goes into the fixed rate.
c. The bi-monthly charge is the sum of the *"Treatment Costs/EDU"* for flow, BOD and TSS.
d. Calculated separately in Table COS-NW5, "Calculation of Septage Charges"

Table COS-NW5
Calculation of Septage Charges *($/1,000 gallons) - Northwest Regional System (FY'08-09)*
Lake County Special Districts

Treatment Costs:	*Flow (gallons)*	BOD (mg/L)	BOD (lbs.)	TSS (mg/L)	TSS (lbs.)
Units *(from Table L-NW1)*	1,000	4,639	38.69	13,500	112.59
Unit Cost *($/hcf or $/lb.)*	$2.75		$0.13		$0.12
Cost *($/1,000 gals.)*	$3.68		$5.08	--	$13.34
Treatment Cost per 1,000 gals.					$22.10
Basic Bi-Monthly Charge per Account					$3.87
Minimum Bi-Monthly Charge *(a)*					$25.96
Additional Charge per 1,000 gals. Discharged (b)					*$22.10*

a. Minimum charge for at least one pumper truck discharge to the treatment plant.
b. Each additional discharge will be an additional volume charge, shown here in $/1,000 gallons.

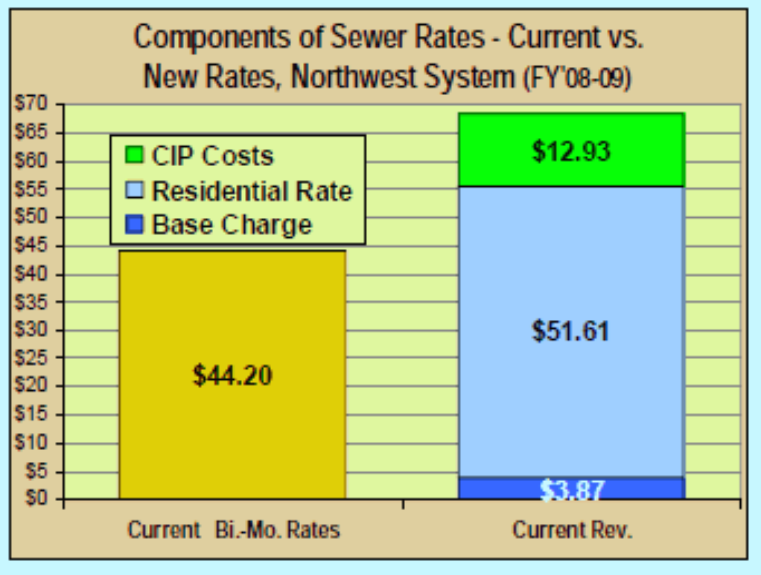


Table PR-NW1

Summary of Recommended Sewer Rates - Northwest Regional System

Lake County Special Districts

	Current Charges[a] (bi-monthly)		Projected New Bi-Monthly Sewer Rates [c]									
			2008-09 [b]			2009-10		2010-11		2011-12		2012-13	
Residential	Basic Charge	Rate/Add'l	Basic Charge	Fixed Rate	Fixed Rate Unit	Basic Charge	Fixed Rate	Basic Charge	Fixed Rate	Basic Charge	Fixed Rate	Basic Charge	Fixed Rate
Single-Family	$44.20	$44.20	$3.87	$64.54	dwelling	$4.33	$72.28	$4.77	$79.51	$5.24	$87.46	$5.77	$96.20
Duplex/Triplex/Mobile Home	$44.20	$44.20	$3.87	$58.08	unit	$4.33	$65.05	$4.77	$71.56	$5.24	$78.71	$5.77	$86.58
Apartments	$44.20	$44.20	$3.87	$45.17	apartment	$4.33	$50.60	$4.77	$55.66	$5.24	$61.22	$5.77	$67.34
Trailer Space w/hook-up	$44.20	$8.80	$3.87	$12.91	space	$4.33	$14.46	$4.77	$15.90	$5.24	$17.49	$5.77	$19.24
Low-Strength Commercial													
Professional Office	$44.20	*NA*	$3.87	$47.04	EDU's	$4.33	$52.69	$4.77	$57.95	$5.24	$63.75	$5.77	$70.12
Car Wash	*NA*	*NA*	$3.87	$46.99	EDU's	$4.33	$52.62	$4.77	$57.89	$5.24	$63.68	$5.77	$70.04
Schools w/o Cafeteria	*NA*	*NA*	$3.87	$47.50	EDU's	$4.33	$53.20	$4.77	$58.52	$5.24	$64.37	$5.77	$70.81
Schools w/o Cafeteria (per student)	*NA*	*NA*	--	$1.19	students	--	$1.33	--	$1.46	--	$1.61	--	$1.77
Laundromat	$44.20	$31.14	$3.87	$48.04	EDU's	$4.33	$53.80	$4.77	$59.18	$5.24	$65.10	$5.77	$71.61
Beauty Shop	$44.20	$34.30	$3.87	$48.04	EDU's	$4.33	$53.80	$4.77	$59.18	$5.24	$65.10	$5.77	$71.61
Dept./Small Retail	$44.20	$2.18	$3.87	$48.96	EDU's	$4.33	$54.83	$4.77	$60.32	$5.24	$66.35	$5.77	$72.98
Theaters	$44.20	$1.04	$3.87	$48.96	EDU's	$4.33	$54.83	$4.77	$60.32	$5.24	$66.35	$5.77	$72.98
Medium-Strength Commercial													
Schools w/ Cafeteria	$88.40	$88.40	$3.87	$48.80	EDU's	$4.33	$54.66	$4.77	$60.12	$5.24	$66.13	$5.77	$72.75
Schools w/ Cafeteria (per student)	*NA*	$1.90	--	$1.95	students	--	$2.19	--	$2.40	--	$2.65	--	$2.91
Service Stations	$88.40	$88.40	$3.87	$52.41	EDU's	$4.33	$58.70	$4.77	$64.57	$5.24	$71.03	$5.77	$78.13
Bars w/o Dining	$88.40	$1.04	$3.87	$50.87	EDU's	$4.33	$56.98	$4.77	$62.67	$5.24	$68.94	$5.77	$75.83
Church/Fraternal/Clubhouse	$88.40	$88.40	$3.87	$51.25	EDU's	$4.33	$57.40	$4.77	$63.14	$5.24	$69.46	$5.77	$76.40
Hospital/Convat. Home	$88.40	$17.52	$3.87	$49.32	EDU's	$4.33	$55.24	$4.77	$60.77	$5.24	$66.84	$5.77	$73.53
Hotel/Motel w/o Dining	$88.40	$88.40	$3.87	$50.69	EDU's	$4.33	$56.78	$4.77	$62.46	$5.24	$68.70	$5.77	$75.57
Hotel/Motel w/o Dining (per unit)	*NA*	$7.52	--	$21.29	unit	--	$23.85	--	$26.23	--	$28.85	--	$31.74
Misc. Commercial	$88.40	$88.40	$3.87	$51.25	EDU's	$4.33	$57.40	$4.77	$63.14	$5.24	$69.46	$5.77	$76.40
High-Strength Commercial													
Hotel/Motel w/ Dining	$88.40	$88.40	$3.87	$64.65	EDU's	$4.33	$72.41	$4.77	$79.65	$5.24	$87.61	$5.77	$96.38
Hotel/Motel w/ Dining (per unit)	*NA*	$9.84	--	$21.33	unit	--	$23.89	--	$26.28	--	$28.91	--	$31.80
Markets w/o grinders	*NA*	*NA*	$3.87	$64.64	EDU's	$4.33	$72.40	$4.77	$79.63	$5.24	$87.60	$5.77	$96.36
Markets w/ grinders	*NA*	*NA*	$3.87	$73.82	EDU's	$4.33	$82.68	$4.77	$90.94	$5.24	$100.04	$5.77	$110.04
Short Order/Take-out	$88.40	$88.40	$3.87	$63.53	EDU's	$4.33	$71.16	$4.77	$78.27	$5.24	$86.10	$5.77	$94.71
Short Order/Take-out (per seat)	*NA*	$2.44	--	$0.89	seat	--	$1.00	--	$1.10	--	$1.21	--	$1.33
Restaurants	$88.40	$88.40	$3.87	$72.24	EDU's	$4.33	$80.91	$4.77	$89.00	$5.24	$97.90	$5.77	$107.69
Restaurants (per seat over 33)	*NA*	*$2.44*	--	$2.17	seat	--	$2.43	--	$2.67	--	$2.94	--	$3.23
Septage Disposal	$88.40	$14.64	$3.87	--	EDU's	$4.33	--	$4.77	--	$5.24	--	$5.77	--
Septage (per 1,000 gals.)	*NA*	*NA*	--	$22.10	1,000 gals.	--	$24.75	--	$27.22	--	$29.94	--	$32.94
Financial Plan Rate Increase	–	–	*12.0%*			*12.0%*		*10.0%*		*10.0%*		*10.0%*	

a. From Lake County current rate codes and ordinances.

b. Basic charges are applied per account, while the fixed rate is per unit as shown. From Table COS-NW3, Summary of Monthly Rates by Customer Class - Northwest Regional System (FY'08-09).

c. Projected rates in 2009-10 and later are calculated using the 2008-09 rates and the "Financial Plan Rate Increase" shown at the bottom of the table.

Southeast

Table SFP-SE1
Sewer Utility Financial Plan - Southeast Regional System (LACOSAN #1)
Lake County Special Districts

	Estimated	Projected Rev. Reqt's., Rate Increases and Rate Revenue				
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Net Revenue Requirements (a)	($2,845,742)	($2,931,358)	($3,231,317)	($3,474,990)	($3,625,969)	($3,783,477)
Annual % Increase over Previous Year	*16.7%*	*3.0%*	*10.2%*	*7.6%*	*4.3%*	*4.3%*
Base Case - Current Rates with No Increases						
Revenue from Current Rates (a)	$1,769,000	$1,787,000	$1,787,000	$1,787,000	$1,787,000	$1,787,000
less Net Revenue Reqt's.	($2,845,742)	($2,931,358)	($3,231,317)	($3,474,990)	($3,625,969)	($3,783,477)
Year-End Surplus (Deficit)	($1,076,742)	($1,144,358)	($1,444,317)	($1,687,990)	($1,838,969)	($1,996,477)
Proposed Financial Plan - Sewer Rate Increases						
Rate Increases		18%	18%	18%	14%	6%
Revenue from Current Rates (a)	$1,769,000	$1,787,000	$1,787,000	$1,787,000	$1,787,000	$1,787,000
Rate Revenue from Rate Increases:						
		$321,660	$321,660	$321,660	$321,660	$321,660
			$379,559	$379,559	$379,559	$379,559
				$447,879	$447,879	$447,879
					$411,054	$411,054
						$290,829
Revenue from Rate Increases	**$0**	**$321,660**	**$701,219**	**$1,149,098**	**$1,560,152**	**$1,760,981**
Projected Rate Revenue (w/ Rate Increases)	$1,769,000	$2,108,660	$2,488,219	$2,936,098	$3,347,152	$3,547,981
less Net Revenue Reqt's.	($2,845,742)	($2,931,358)	($3,231,317)	($3,474,990)	($3,625,969)	($3,783,477)
Year-End Surplus (Deficit)	($1,076,742)	($822,698)	($743,098)	($538,892)	($278,817)	($235,496)

a. From Table SB-SE1, Sewer System Budget Projections and Revenue Requirements - Southeast Regional System.

Table SFP-SE2
Summary of Projected Sewer Reserve Fund Levels - Southeast Regional System (LACOSAN #1)
Lake County Special Districts

		Estimated	Projected Reserve Funds				
		2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Sewer Operations Fund (Cash)							
Beginning Fund Balance		$0	$1,343,584	$576,564	$133,466	$144,574	$165,757
Sewer Rate Revenue Surplus (Deficit) (a)		$0	($822,698)	($743,098)	($538,892)	($278,817)	($235,496)
Transfers to CIP Fund		$0	$0	$300,000	$550,000	$300,000	$175,000
Transfers to R&R Fund		$0	$0	$0	$0	$0	$0
Year-End Fund Balance (b)		**$0**	**$576,564**	**$133,466**	**$144,574**	**$165,757**	**$105,261**
Sewer Capital Improvement Fund (CIP)							
Beginning Fund Balance		$0	$0	$630,710	$555,910	$228,110	$137,210
Cap Fee Revenue		$0	$0	$200,000	$200,000	$200,000	$200,000
Transfer from Operations Fund		$0	$0	($300,000)	($550,000)	($300,000)	($175,000)
Investment Earnings (c)		*$0*	$0	$25,200	$22,200	$9,100	$5,500
Year-End Fund Balance (c)		**$0**	**$630,710**	**$555,910**	**$228,110**	**$137,210**	**$167,710**
Sewer Repair & Replacement Fund (R&R)							
Beginning Fund Balance		$0	$0	$225,967	$234,967	$244,367	$254,167
Transfer from Operations Fund		$0	$0	$0	$0	$0	$0
Investment Earnings		$0	$0	$9,000	$9,400	$9,800	$10,200
Year-End Fund Balance		**$0**	**$225,967**	**$234,967**	**$244,367**	**$254,167**	**$264,367**
Combined Sewer Funds Balance		**$0**	**$1,433,241**	**$924,343**	**$617,051**	**$557,134**	**$537,338**
General Inflation Escalator			*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*
Interest Earnings Rate	*4.0%*		*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*
Approximate Coverage Ratio (c)			*553%*	*356%*	*146%*	*131%*	*126%*

a. From Table SFP-SE1, Sewer Utility Financial Plan - Southeast Regional System (LACOSAN #1).
b. FY08-09 year-end fund balance from County's Form 7 "Total Reserves Proposed for FY'08-09". Allocation between LACOSAN #1 and #3 is by % of operating expenses shown in Tables SB-SE1 and SB-NW1.
c. Planning-level coverage ratio calculation: total ending reserve funds divided by annual debt service for new revenue bonds.

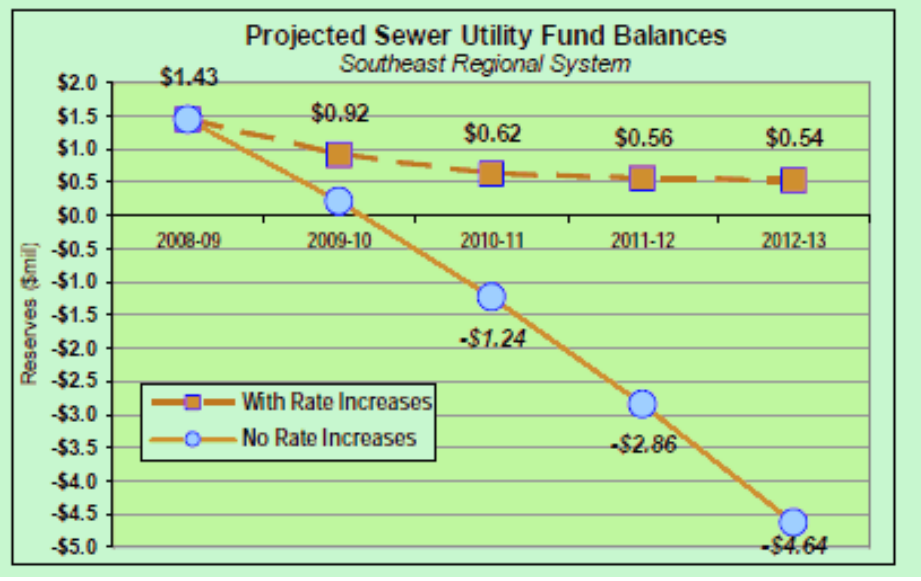


Table CA-SE1

Sewer Cost Allocations by Functional Component - Southeast Regional System (LACOSAN #1) (FY'08-09)

Lake County Special Districts

Sewer Operations Fund	2008-09 Budget (a)	Allocated Costs: Account/ Customer	Other Fixed	Flow-Related	BOD-Related	TSS-Related	Percent Allocations: Account/ Customer	Other Fixed	Flow-Related	BOD-Related	TSS-Related
Operating Expenditures											
Collection	$677,115	$0	$0	$677,115	$0	$0	0%	0%	100%	0%	0%
Treatment	$944,480	$0	$0	$661,136	$141,672	$141,672	0%	0%	70%	15%	15%
Disposal	$814,177	$0	$0	$732,760	$40,709	$40,709	0%	0%	90%	5%	5%
Admin	$645,227	$129,045	$64,523	$322,614	$64,523	$64,523	20%	10%	50%	10%	10%
Subtotals	$3,081,000	$129,045	$64,523	$2,393,625	$246,904	$246,904	4.2%	2.1%	77.7%	8.0%	8.0%
CIP Expenditures (b)											
Fixed Assets (Cash-Funded)	$380,005	$0	$0	$380,005	$0	$0	0%	0%	100%	0%	0%
Pay-As-You-Go (Cash Funded)	$0	$0	$0	$0	$0	$0	0%	0%	100%	0%	0%
Debt Funded (Debt Service)	$162,294	$0	$0	$146,064	$0	$16,229	0%	0%	90%	0%	10%
Subtotals	$542,299	$0	$0	$526,070	$0	$16,229	0.0%	0.0%	97.0%	0.0%	3.0%
Non-Rate Expenses											
less Other Revenue	($691,941)	($28,981)	($14,491)	($537,668)	($55,450)	($55,450)	4.2%	2.1%	77.7%	8.0%	8.0%
Subtotals	($691,941)	($28,981)	($14,491)	($537,668)	($55,450)	($55,450)	4%	2%	78%	8%	8%
Total System Revenue Reqt's.	**$2,931,358**	**$100,064**	**$50,032**	**$2,382,128**	**$191,453**	**$207,683**	**3.4%**	**1.7%**	**81.3%**	**6.5%**	**7.1%**
Fixed/Variable Allocations		*$150,096*			*$2,781,262*		*5.1%*		*94.9%*		

a. From Table SB-SE1, Sewer System Budget Projections and Revenue Requirements - Southeast Regional System.

b. Allocations are based on the CIP projects shown in the Final CIP Worksheet from Special District Administration staff, 12-7-07, with Foresight revisions.

Table COS-SE1

Total Flow, Loadings, Rev. Reqt's. & Unit Costs - Southeast Regional System *(FY'08-09)*

Lake County Special Districts

	Fixed Costs: Customer	Other Fixed	Variable Costs: Flow (a)	BOD Costs	TSS Costs	Total Rev. Req't.
Allocated Rev. Reqt's (a)	$71,940	$35,970	$1,712,614	$137,644	$149,312	$2,107,480
Customers, Flow & Loadings (b)						
No. of Services	5,210	--	--	--	--	--
No. of Services	--	5,210	--	--	--	--
Flow (hcf/yr)	--	--	650,634	--	--	--
BOD (lbs/yr)	--	--	--	751,900	--	--
TSS (lbs/yr)	--	--	--	--	853,311	--
Unit Costs ($/year/unit) (c)	**$13.81/acct.**	**$6.90/acct.**	**$2.632/hcf**	**$0.1831/lb.**	**$0.1750/lb.**	--

a. From Table CA-SE1, Sewer Cost Allocations by Functional Component - Southeast Regional System (FY'08-09).

b. From Table L-SE1, Customer Accounts & Estimated Flow & Loadings - Southeast Regional System (FY'08-09).

c. Allocated revenue requirement divided by the units of the flow or loading parameter.

Table COS-SE2
Revenue Requirements & Monthly Rates by Customer Class - Southeast Regional System *(FY'08-09)*
Lake County Special Districts

Customer Classes	Customer Costs			Other Fixed Costs			Flow-Related Costs		
	Number of Accounts (b)	Unit Cost $/Acct./2 mo.(c)	Annual Rev. Req't.(d)	Number of Acct's (b)	Unit Cost $/Acct/2 mo.(c)	Annual Rev. Req't.(d)	Effluent (hcf/yr) (e)	Unit Cost ($/hcf) (c)	Annual Rev. Req't.(d)
Residential (a)	4,917	$2.3014	$67,895	4,917	$1.1507	$33,947	584,835	$2.632	$1,539,417
Low-Strength Commercial									
1 Professional Office	34	$2.301	$469	34	$0.58	$235	3,484	$2.632	$9,171
2 Car Wash	0	$2.301	$0	0	$0.00	$0	0	$2.632	$0
3 Schools w/ Cafeteria	2	$2.301	$28	2	$0.58	$14	9,475	$2.632	$24,939
4 Laundromat	10	$2.301	$138	10	$0.58	$69	8,646	$2.632	$22,759
5 Beauty Shop	20	$2.301	$276	20	$0.58	$138	2,049	$2.632	$5,395
6 Dept./Small Retail	24	$2.301	$331	24	$0.58	$166	2,459	$2.632	$6,474
7 Theaters	1	$2.301	$14	1	$0.58	$7	205	$2.632	$539
Medium-Strength Commercial									
8 Schools w/ Cafeteria & Showers	1	$2.301	$14	1	$0.58	$7	7,698	$2.632	$20,262
9 Service Stations	5	$2.301	$69	5	$0.58	$35	3,202	$2.632	$8,428
10 Bars w/o Dining	0	$2.301	$0	0	$0.00	$0	0	$2.632	$0
11 Church/Fraternal/Clubhouse	25	$2.301	$345	25	$0.58	$173	2,562	$2.632	$6,743
12 Hospital/Conval. Home	1	$2.301	$14	1	$0.58	$7	6,946	$2.632	$18,284
13 Hotel/Motel w/o Dining	19	$2.301	$262	19	$0.58	$131	3,362	$2.632	$8,850
14 Misc. Commercial	101	$2.301	$1,395	101	$0.58	$697	10,350	$2.632	$27,243
High-Strength Commercial									
15 Hotel/Motel w/ Dining	17	$2.301	$235	17	$0.58	$117	1,774	$2.632	$4,670
16 Markets w/o grinders	0	$2.301	$0	0	$0.00	$0	0	$2.632	$0
17 Markets w/ grinders	0	$2.301	$0	0	$0.00	$0	0	$2.632	$0
18 Short Order/Take-out	23	$2.301	$318	23	$0.58	$159	2,357	$2.632	$6,204
19 Restaurants	8	$2.301	$110	8	$0.58	$55	820	$2.632	$2,158
20 Septage Dump	2	$2.301	$28	2	$0.58	$14	410	$2.632	$1,079
Subtotal - Non-Resid.	293	--	$4,046	293	--	$2,023	65,799	--	$173,197
Total - Resid. & Non-Res.	5,210	--	$71,940	5,210	--	$35,970	650,634	--	$1,712,614

Table COS-SE2 (cont.)

Customer Classes	BOD-Related Costs			TSS-Related Costs			Summary of Costs		
	Units of BOD (lbs/yr) (e)	Unit Cost ($/lb) (c)	Annual Rev. Req't.(d)	Units of TSS (lbs/yr) (e)	Unit Cost ($/lb) (c)	Annual Rev. Req't.(d)	Cust. & Other Fixed (f)	Flow, BOD, & TSS (g)	**Total Rev. Req't's.**
Residential (a)	662,211	$0.1831	$121,225	755,098	$0.1750	$132,127	$101,842	$1,792,769	$1,894,611
Low-Strength Commercial								*($/hcf)*	
1 Professional Office	2,442	$0.1831	$447	1,714	$0.1750	$300	$704	$9,918	$10,622
2 Car Wash	0	$0.1831	$0	0	$0.1750	$0	$0	$0	$0
3 Schools w/ Cafeteria	6,641	$0.1831	$1,216	5,825	$0.1750	$1,019	$41	$27,174	$27,215
4 Laundromat	6,993	$0.1831	$1,280	5,847	$0.1750	$1,023	$207	$25,062	$25,269
5 Beauty Shop	1,658	$0.1831	$303	1,386	$0.1750	$243	$414	$5,941	$6,355
6 Dept./Small Retail	1,989	$0.1831	$364	2,268	$0.1750	$397	$497	$7,235	$7,732
7 Theaters	166	$0.1831	$30	189	$0.1750	$33	$21	$603	$624
Medium-Strength Commercial									
8 Schools w/ Cafeteria & Showers	7,056	$0.1831	$1,292	6,152	$0.1750	$1,077	$21	$22,630	$22,651
9 Service Stations	3,108	$0.1831	$569	5,512	$0.1750	$965	$104	$9,961	$10,065
10 Bars w/o Dining	0	$0.1831	$0	0	$0.1750	$0	$0	$0	$0
11 Church/Fraternal/Clubhouse	2,901	$0.1831	$531	3,308	$0.1750	$579	$518	$7,853	$8,371
12 Hospital/Conval. Home	9,363	$0.1831	$1,714	4,271	$0.1750	$747	$21	$20,745	$20,766
13 Hotel/Motel w/o Dining	5,620	$0.1831	$1,029	2,481	$0.1750	$434	$394	$10,313	$10,706
14 Misc. Commercial	11,719	$0.1831	$2,145	13,363	$0.1750	$2,338	$2,092	$31,727	$33,818
High-Strength Commercial									
15 Hotel/Motel w/ Dining	4,784	$0.1831	$876	6,545	$0.1750	$1,145	$352	$6,691	$7,044
16 Markets w/o grinders	0	$0.1831	$0	0	$0.1750	$0	$0	$0	$0
17 Markets w/ grinders	0	$0.1831	$0	0	$0.1750	$0	$0	$0	$0
18 Short Order/Take-out	8,896	$0.1831	$1,628	6,086	$0.1750	$1,065	$476	$8,897	$9,374
19 Restaurants	4,420	$0.1831	$809	3,024	$0.1750	$529	$166	$3,496	$3,662
20 Septage Dump	11,935	$0.1831	$2,185	30,241	$0.1750	$5,292	$41	$8,555	$8,597
Subtotal - Non-Resid.	89,689	--	$16,419	98,213	--	$17,185	$6,069	$206,801	$212,869
Total - Resid. & Non-Res.	751,900	--	$137,644	853,311	--	$149,312	$107,910	$1,999,570	$2,107,480

a. Represents all residential classes shown in Table COS-SE1, Customer Accounts & Estimated Flow & Loadings - Southeast Regional System (FY'08-09).
b. From Special District Administration's billing records (see Table L-SE1, Customer Accounts & Estimated Flow & Loadings - Southeast Regional System).
c. From Table COS-SE1, Total Flow, Loadings, Rev. Req't's. & Unit Costs - Southeast Regional System (FY'08-09).
d. Units times unit costs.
e. From Table L-SE1, Customer Accounts & Estimated Flow & Loadings - Southeast Regional System.
f. Total annual Customer Costs and Other Fixed Costs.
g. Total annual revenue requirements per customer class excluding Customer Costs and Other Fixed Costs.

Table COS-SE3
Summary of Monthly Rates by Customer Class - Southeast Regional System *(FY'08-09)*
Lake County Special Districts

	Basic Charge (a)	Bi-Mo. Fixed Rate (b)		Volume Rates			
Residential	($/acct./2 mo.)	EDU Factor (c)	($/EDU/2 mo.)	Rev. Reqt. (d)	Water Use (e)	Vol. Rate (f)	Description
1 Single-Family	$3.45	100%	$60.77	--	--	--	
2 Duplex/Triplex/MH	$3.45	90%	$54.69	--	--	--	
3 Apartments	$3.45	70%	$42.54	--	--	--	
4 Trailer Space	$3.45	20%	$12.15	--	--	--	
5 Vacant	$3.45	100%	$60.77	--	--	--	
Low-Strength Commercial						($/hcf water use)	
1 Professional Office	$3.45	80%	$48.62	$9,918	4,977	$26.03	*1 EDU = 24 employees*
2 Car Wash	$3.45	79%	$48.05	$0	0	$3.94	*Based on Current EDU's*
3 Schools w/ Cafeteria	$3.45	81%	$48.98	$27,174	13,535	$4.02	*1 EDU = 40 students*
Schools w/ Cafeteria (per student)	--	--	$1.22	--	--	--	
4 Laundromat	$3.45	81%	$49.51	$25,062	12,470	$210.58	1 machine = 1.25 EDU (or 1 EDU = 0.8 machines)
5 Beauty Shop	$3.45	81%	$49.51	$5,941	2,928	$26.48	*1 EDU = 2 stations*
6 Dept./Small Retail	$3.45	83%	$50.24	$7,235	3,513	$4.12	*Based on Current EDU's*
7 Theaters	$3.45	83%	$50.24	$603	293	$4.12	*1 EDU = 100 seats*
Medium-Strength Commercial							
8 Schools w/ Cafeteria & Showers	$3.45	83%	$50.21	$22,630	10,997	$4.12	*1 EDU = 17 students*
Schools w/ Cafe.& Showers (per student)	--	--	$2.01	--	--	--	
9 Service Stations	$3.45	87%	$53.13	$9,961	4,574	$2.61	*A 3-pump island = 1.67 EDU*
10 Bars w/o Dining	$3.45	86%	$52.00	$0	0	$4.26	*1 EDU = 15 seats*
11 Church/Fraternal/Clubhouse	$3.45	86%	$52.35	$7,853	3,660	$4.29	*1 EDU = 500 seats*
12 Hospital/Conval. Home	$3.45	84%	$51.01	$20,745	9,923	$6.27	*1 bed = 0.67 EDU*
13 Hotel/Motel w/o Dining	$3.45	86%	$52.39	$10,313	4,803	$10.31	*1 unit = 0.42 EDU's (or 1 EDU = 2.38 units)*
Hotel/Motel w/o Dining (per unit)	--	--	$22.00	--	--	--	
14 Misc. Commercial	$3.45	86%	$52.35	$31,727	14,785	$27.90	*Based on Current EDU's*
High-Strength Commercial							
15 Hotel/Motel w/ Dining	$3.45	106%	$64.41	$6,691	2,535	$15.84	*1 unit = 0.5 EDU's (or 1 EDU = 2.0 units)*
Hotel/Motel w/ Dining (per unit)	--	--	$21.25	--	--	--	
16 Markets w/o grinders	$3.45	106%	$64.69	$0	0	$5.30	*Based on Current EDU's*
17 Markets w/ grinders	$3.45	120%	$73.14	$0	0	$0.00	*Based on Current EDU's*
18 Short Order/Take-out	$3.45	106%	$64.47	$8,897	3,367	$33.96	*1 EDU = 70 seats*
Short Order/Take-out (per seat)	--	1.4%	$0.90	--	--	--	
19 Restaurants	$3.45	120%	$72.84	$3,496	1,171	$38.14	*1 EDU = 33 seats*
Restaurants (per seat over 33)	--	3%	$2.19	--	--	--	
20 Septage Dump	$3.45	--	--	--	--	--	
Septage Dump (per 1,000 gals.)	--	--	--	--	--	$29.95	

a. Basic Charges are applied to each account, but not additional EDU's, and include customer and other fixed costs.
b. Represents all revenue requirements not included in the Basic Charge, and is charged based on the number of EDU's.
c. Shows the percent of a full Single-Family (or EDU) rate based on the amount of effluent and the wastewater strength (BOD and TSS).
d. Revenue requirements for flow, BOD and TSS from Table COS-SE2, Revenue Requirements & Monthly Rates by Customer Class - Southeast Regional System (FY'08-09).
e. From Table COS-SE1, Total Flow, Loadings, Rev. Reqts. & Unit Costs - Southeast Regional System (FY'08-09).
f. These are volume charges per hcf of water shown in Table L-SE1, Customer Accounts & Estimated Flow & Loadings - Southeast Regional System.

Table COS-SE3
Summary of Monthly Rates by Customer Class - Southeast Regional System *(FY'08-09)*
Lake County Special Districts

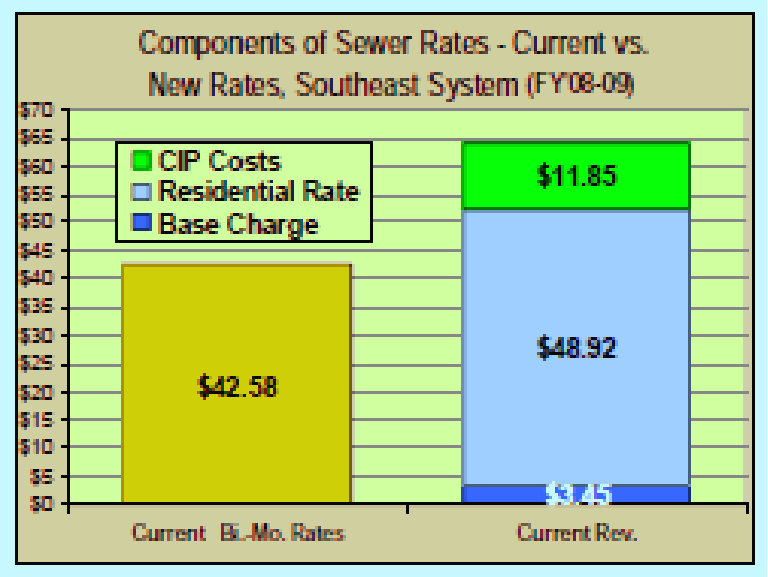
	Basic Charge (a)	Bi-Mo. Fixed Rate (b)		Volume Rates			
Residential	($/acct./2 mo.)	EDU Factor (c)	($/EDU/2 mo.)	Rev. Reqt. (d)	Water Use (e)	Vol. Rate (f)	Description
1 Single-Family	$3.45	100%	$60.77	--	--	--	
2 Duplex/Triplex/MH	$3.45	90%	$54.69	--	--	--	
3 Apartments	$3.45	70%	$42.54	--	--	--	
4 Trailer Space	$3.45	20%	$12.15	--	--	--	
5 Vacant	$3.45	100%	$60.77	--	--	--	
Low-Strength Commercial						($/hcf water use)	
1 Professional Office	$3.45	80%	$48.62	$9,918	4,977	$26.03	*1 EDU = 24 employees*
2 Car Wash	$3.45	79%	$48.05	$0	0	$3.94	*Based on Current EDU's*
3 Schools w/ Cafeteria	$3.45	81%	$48.98	$27,174	13,535	$4.02	*1 EDU = 40 students*
Schools w/ Cafeteria (per student)	--	--	$1.22	--	--	--	
4 Laundromat	$3.45	81%	$49.51	$25,062	12,470	$210.58	1 machine = 1.25 EDU (or 1 EDU = 0.8 machines)
5 Beauty Shop	$3.45	81%	$49.51	$5,941	2,928	$26.48	*1 EDU = 2 stations*
6 Dept./Small Retail	$3.45	83%	$50.24	$7,235	3,513	$4.12	*Based on Current EDU's*
7 Theaters	$3.45	83%	$50.24	$603	293	$4.12	*1 EDU = 100 seats*
Medium-Strength Commercial							
8 Schools w/ Cafeteria & Showers	$3.45	83%	$50.21	$22,630	10,997	$4.12	*1 EDU = 17 students*
Schools w/ Cafe.& Showers (per student)	--	--	$2.01	--	--	--	
9 Service Stations	$3.45	87%	$53.13	$9,961	4,574	$2.61	*A 3-pump island = 1.67 EDU*
10 Bars w/o Dining	$3.45	86%	$52.00	$0	0	$4.26	*1 EDU = 15 seats*
11 Church/Fraternal/Clubhouse	$3.45	86%	$52.35	$7,853	3,660	$4.29	*1 EDU = 500 seats*
12 Hospital/Conval. Home	$3.45	84%	$51.01	$20,745	9,923	$6.27	*1 bed = 0.67 EDU*
13 Hotel/Motel w/o Dining	$3.45	86%	$52.39	$10,313	4,803	$10.31	*1 unit = 0.42 EDU's (or 1 EDU = 2.38 units)*
Hotel/Motel w/o Dining (per unit)	--	--	$22.00	--	--	--	
14 Misc. Commercial	$3.45	86%	$52.35	$31,727	14,785	$27.90	*Based on Current EDU's*
High-Strength Commercial							
15 Hotel/Motel w/ Dining	$3.45	106%	$64.41	$6,691	2,535	$15.84	*1 unit = 0.5 EDU's (or 1 EDU = 2.0 units)*
Hotel/Motel w/ Dining (per unit)	--	--	$21.25	--	--	--	
16 Markets w/o grinders	$3.45	106%	$64.69	$0	0	$5.30	*Based on Current EDU's*
17 Markets w/ grinders	$3.45	120%	$73.14	$0	0	$0.00	*Based on Current EDU's*
18 Short Order/Take-out	$3.45	106%	$64.47	$8,897	3,367	$33.96	*1 EDU = 70 seats*
Short Order/Take-out (per seat)	--	1.4%	$0.90	--	--	--	
19 Restaurants	$3.45	120%	$72.84	$3,496	1,171	$38.14	*1 EDU = 33 seats*
Restaurants (per seat over 33)	--	3%	$2.19	--	--	--	
20 Septage Dump	$3.45	--	--	--	--	--	
Septage Dump (per 1,000 gals.)	--	--	--	--	--	$29.95	

a. Basic Charges are applied to each account, but not additional EDU's, and include customer and other fixed costs.
b. Represents all revenue requirements not included in the Basic Charge, and is charged based on the number of EDU's.
c. Shows the percent of a full Single-Family (or EDU) rate based on the amount of effluent and the wastewater strength (BOD and TSS).
d. Revenue requirements for Flow, BOD and TSS from Table COS-SE2, Revenue Requirements & Monthly Rates by Customer Class - Southeast Regional System (FY'08-09).
e. From Table COS-SE1, Total Flow, Loadings, Rev. Reqts. & Unit Costs - Southeast Regional System (FY'08-09).
f. These are volume charges per hcf of water shown in Table L-SE1, Customer Accounts & Estimated Flow & Loadings - Southeast Regional System.

Table COS-SE5
Calculation of Septage Charges *($/1,000 gallons) - Southeast Regional System (FY'08-09)*
Lake County Special Districts

Treatment Costs:	Flow (gallons)	BOD (mg/L)	BOD (lbs.)	TSS (mg/L)	TSS (lbs.)
Units *(from Table L-SE1)*	1,000	5,060	42.20	12,820	106.92
Unit Cost *($/hcf or $/lb.)*	$2.63	--	$0.18	--	$0.17
Cost *($/1,000 gals.)*	$3.52	--	$7.73	--	$18.71
Treatment Cost per 1,000 gals.					$29.95
Basic Bi-Monthly Charge per Account					$3.45
Minimum Bi-Monthly Charge *(a)*					$33.41
Additional Charge per 1,000 gals. Discharged (b)					*$29.95*

a. Minimum charge for at least one pumper truck discharge to the treatment plant.
b. Each additional discharge will be an additional volume charge, shown here in $/1,000 gallons.



Middletown

Table SB-MID1
Projected Sewer Revenue Requirements - Middletown Sanitation District
Lake County Special Districts

Sewer Operations Fund		Budget 2007-08	Projected Revenue Requirements 2008-09	2009-10	2010-11	2011-12	2012-13
Operations (a)							
Collection	36.6%	$142,922	$106,325	$109,570	$112,868	$116,166	$119,831
Treatment	29.1%	$113,598	$84,510	$87,089	$89,710	$92,332	$95,244
Disposal	4.3%	$16,758	$12,467	$12,847	$13,234	$13,621	$14,050
Admin	29.9%	$116,735	$86,843	$89,494	$92,188	$94,881	$97,874
Subtotal - Operations		$390,012	$290,145	$299,000	$308,000	$317,000	$327,000
CIP Expenditures							
Pay-As-You-Go *(Cash Funded)*		$4,353	$0	$0	$0	$0	$0
Debt Funded *(Debt Service Payments)* (c)		$49,736	$29,113	$58,226	$76,079	$76,372	$76,595
Subtotal - CIP		$54,089	$29,113	$58,226	$76,079	$76,372	$76,595
less Recurring Other Revenue (b)		($29,745)	($31,400)	($32,000)	($33,000)	($34,000)	($35,000)
less One-time Revenues or Reserves			$0	$0	$0	$0	$0
Net Revenue Requirements		**$414,356**	**$287,858**	**$325,226**	**$351,079**	**$359,372**	**$368,595**
Rate Revenue from Current Rates (d)		*$107,566*	*$125,000*	*$125,000*	*$125,000*	*$125,000*	*$125,000*

a. Summarized from County Schedule RR1.253. Costs are allocated to operational categories based on Special District's financials (files UA1FIN, UA2FIN, and UA3FIN). See Table FCA-S1.
b. Includes one-time revenues, charges for delinquent payments, connection fee revenue, and similar misc. revenues. From Fund 253 Form 3.
c. From Tables CIP-S2 and CIP-S4. Based on Northcross Hill and Ach analysis, which assumes a 5.5% interest rate and a 30-year repayment.
d. User fees (rate revenue). From Fund 253 Form 3. Projections are assumed to be the same as current and do not include inflation.

Table SFP-MID1
Sewer Utility Financial Plan - Middletown Sanitation District
Lake County Special Districts

	Estimated 2007-08	Projected Rev. Reqt's., Rate Increases and Rate Revenue 2008-09	2009-10	2010-11	2011-12	2012-13
Net Revenue Requirements (a)	**($414,356)**	**($287,858)**	**($325,226)**	**($351,079)**	**($359,372)**	**($368,595)**
Annual % Increase over Previous Year	*137.7%*	*-30.6%*	*13.0%*	*7.9%*	*2.4%*	*2.6%*
Base Case - Current Rates with No Increases						
Revenue from Current Rates (a)	$107,566	$125,000	$125,000	$125,000	$125,000	$125,000
less Net Revenue Reqt's.	($414,356)	($287,858)	($325,226)	($351,079)	($359,372)	($368,595)
Year-End Surplus (Deficit)	($306,790)	($162,858)	($200,226)	($226,079)	($234,372)	($243,595)
Proposed Financial Plan - Sewer Rate Increases						
Rate Increases		20.0%	15.0%	15.0%	12.0%	10.0%
Revenue from Current Rates (a)	$107,566	$125,000	$125,000	$125,000	$125,000	$125,000
Rate Revenue from Rate Increases:						
		$25,000	$25,000	$25,000	$25,000	$25,000
			$22,500	$22,500	$22,500	$22,500
				$25,875	$25,875	$25,875
					$23,805	$23,805
						$22,218
Revenue from Rate Increases	**$0**	**$25,000**	**$47,500**	**$73,375**	**$97,180**	**$119,398**
Projected Rate Revenue (w/ Rate Increases)	$107,566	$150,000	$172,500	$198,375	$222,180	$244,398
less Net Revenue Reqt's.	($414,356)	($287,858)	($325,226)	($351,079)	($359,372)	($368,595)
Year-End Surplus (Deficit)	($306,790)	($137,858)	($152,726)	($152,704)	($137,192)	($124,197)

a. From Table SB-MID1, Sewer System Budget Projections and Revenue Requirements - Middletown Sanitation District.

Table SFP-MID2
Summary of Projected Sewer Reserve Fund Levels - Middletown Sanitation District
Lake County Special Districts

	Estimated	Projected Reserve Funds				
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Sewer Operations Fund (Cash)						
Beginning Fund Balance	$449,034	$519,444	$381,585	$278,859	$176,155	$78,963
Sewer Rate Revenue Surplus (Deficit) (a)	$0	($137,858)	($152,726)	($152,704)	($137,192)	($124,197)
Transfers from CIP Fund	$0	$0	$50,000	$50,000	$40,000	$60,000
Year-End Fund Balance	**$449,034**	**$381,585**	**$278,859**	**$176,155**	**$78,963**	**$14,766**
Sewer Capital Improvement Fund (CIP)						
Beginning Fund Balance	$195,487	$195,487	$217,287	$185,987	$153,387	$129,487
Cap Fee Revenue	$0	$14,000	$10,000	$10,000	$10,000	$10,000
Transfer from Operations Fund	$0	$0	($50,000)	($50,000)	($40,000)	($60,000)
Investment Earnings	*NA*	$7,800	$8,700	$7,400	$6,100	$5,200
Year-End Fund Balance	**$195,487**	**$217,287**	**$185,987**	**$153,387**	**$129,487**	**$84,687**
Combined Sewer Funds Balance	**$644,521**	**$598,872**	**$464,846**	**$329,542**	**$208,450**	**$99,453**
General Inflation Escalator		*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*
Interest Earnings Rate	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*
Approx. Coverage Ratio (b)		*2067.0%*	*796.3%*	*433.2%*	*272.9%*	*129.5%*

a. From Table SFP-1, Sewer Utility Financial Plan - Middletown Sanitation District
b. Current year new debt service divided by year-end fund balance.

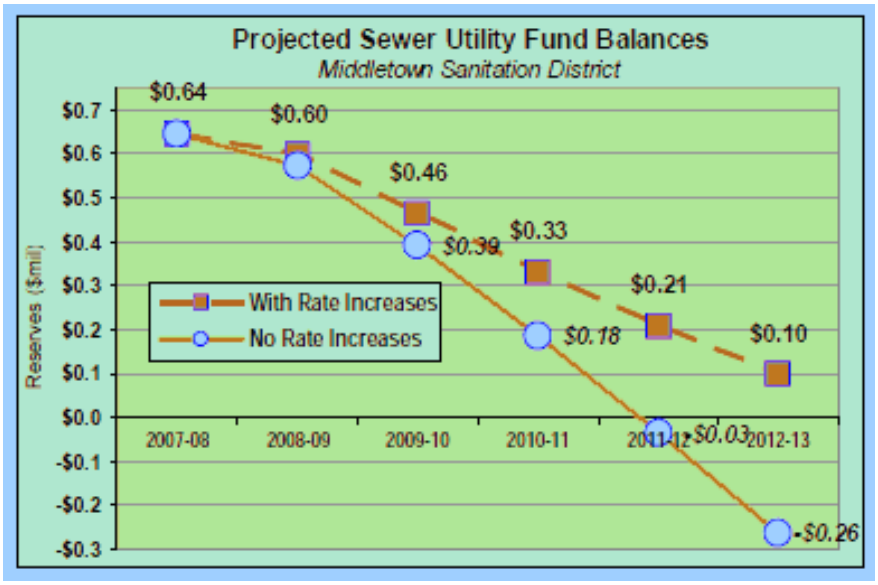


Table CA-MID1
Sewer Cost Allocations by Functional Component - Middletown Sanitation District *(FY'08-09)*
Lake County Special Districts

		Allocated Costs					Percent Allocations				
Sewer Operations Fund	2008-09 Budget (a)	Account/ Customer	Other Fixed	Flow-Related	BOD-Related	TSS-Related	Account/ Customer	Other Fixed	Flow-Related	BOD-Related	TSS-Related
Operating Expenditures											
Collection	$106,325	$0	$0	$106,325	$0	$0	0%	0%	100%	0%	0%
Treatment	$84,510	$0	$0	$59,157	$25,353	$0	0%	0%	70%	30%	0%
Disposal	$12,467	$0	$0	$11,220	$1,247	$0	0%	0%	90%	10%	0%
Admin	$86,843	$21,711	$8,684	$47,764	$8,684	$0	25%	10%	55%	10%	0%
Subtotals	$290,145	$21,711	$8,684	$224,466	$35,284	$0	7.5%	3.0%	77.4%	12.2%	0.0%
CIP Expenditures (b)											
Pay-As-You-Go *(Cash Funded)*	$0	$0	$0	$0	$0	$0	0%	0%	100%	0%	0%
Debt Funded *(Debt Service)*	$29,113	$0	$0	$23,291	$5,823	$0	0%	0%	80%	20%	0%
Subtotals	$29,113	$0	$0	$23,291	$5,823	$0	0.0%	0.0%	80.0%	20.0%	0.0%
Non-Rate Expenses											
less Other Revenue	($31,400)	($2,350)	($940)	($24,292)	($3,818)	$0	7.5%	3.0%	77.4%	12.2%	0.0%
Subtotals	($31,400)	($2,350)	($940)	($24,292)	($3,818)	$0	7%	3%	77%	12%	0%
Total System Revenue Reqt's.	$287,858	$19,361	$7,745	$223,464	$37,288	$0	6.7%	2.7%	77.6%	13.0%	0.0%
Fixed/Variable Allocations		*$27,106*		*$260,752*			*9.4%*		*90.6%*		

a. From Table SB-MID1, Sewer System Budget Projections and Revenue Requirements - Middletown
b. Allocations are based on the CIP projects shown in the Final CIP Worksheet from Special District Administration staff, 12-7-07, with Foresight revisions.

Table COS-MID1

Total Flow, Loadings, Rev. Req't's. & Unit Costs - Middletown Sanitation District *(FY'08-09)*

Lake County Special Districts

	Fixed Costs		Variable Costs			Total Rev.
	Customer	Other Fixed	Flow (a)	BOD Costs	TSS Costs	Req't.
Allocated Rev. Req't's (a)	$10,089	$4,036	$116,445	$19,430	$0	$150,000
Customers, Flow & Loadings (b)						
No. of Accounts	481	--	--	--	--	--
No. of Accounts	--	481	--	--	--	--
Flow (hcf/yr)	--	--	63,436	--	--	--
BOD (lbs/yr)	--	--	--	85,878	--	--
TSS (lbs/yr)	--	--	--	--	--	--
Unit Costs ($/year/unit) (c)	**$20.97/acct.**	**$8.39/acct.**	**$1.836/hcf**	**$0.2263/lb.**	**$0.0000/lb.**	--

a. From Table CA-MID1, Sewer Cost Allocations by Functional Component - Middletown Sanitation District (FY'08-09).
b. From Table L-MID1, Customer Accounts & Estimated Flow & Loadings - Middletown Sanitation District (FY'08-09).
c. Allocated revenue requirement divided by the units of the flow or loading parameter.

Table COS-MID2

Revenue Requirements & Monthly Rates by Customer Class - Middletown Sanitation District *(FY'08-09)*

Lake County Special Districts

	Customer Costs			Other Fixed Costs			Flow-Related Costs		
Customer Classes	Number of Accounts (b)	Unit Cost $/Acct./2 mo.(c)	Annual Rev. Req't.(d)	Number of Acct's (b)	Unit Cost $/Acct/2 mo.(c)	Annual Rev. Req't.(d)	Effluent (hcf/yr) (e)	Unit Cost ($/hcf) (c)	Annual Rev. Req't.(d)
Residential (a)	433	$3.4958	$9,082	433	$1.3983	$3,633	55,421	$1.836	$101,733
Low-Strength Commercial									
1 Professional Office	23	$3.496	$482	23.0	$0.70	$193	3,397	$1.836	$6,235
2 Car Wash	0	$3.496	$0	0.0	$0.00	$0	0	$1.836	$0
3 Schools w/o Cafeteria	0	$3.496	$0	0.0	$0.00	$0	0	$1.836	$0
4 Laundromat	1	$3.496	$21	1.0	$0.70	$8	651	$1.836	$1,194
5 Beauty Shop	0	$3.496	$0	0.0	$0.00	$0	0	$1.836	$0
6 Dept./Small Retail	0	$3.496	$0	0.0	$0.00	$0	0	$1.836	$0
7 Theaters	0	$3.496	$0	0.0	$0.00	$0	0	$1.836	$0
Medium-Strength Commercial									
8 Schools w/ Cafeteria	3	$3.496	$63	3.0	$0.70	$25	484	$1.836	$888
9 Service Stations	1	$3.496	$21	1.0	$0.70	$8	917	$1.836	$1,683
10 Bars w/o Dining	0	$3.496	$0	0.0	$0.00	$0	0	$1.836	$0
11 Church/Fraternal/Clubhouse	5	$3.496	$105	5.0	$0.70	$42	986	$1.836	$1,810
12 Hospital/Conval. Home	0	$3.496	$0	0.0	$0.00	$0	0	$1.836	$0
13 Hotel/Motel w/o Dining	4	$3.496	$84	4.0	$0.70	$34	377	$1.836	$693
14 Misc. Commercial	6	$3.496	$126	6.0	$0.70	$50	657	$1.836	$1,207
High-Strength Commercial									
15 Hotel/Motel w/ Dining	1	$3.496	$21	1.0	$0.70	$8	108	$1.836	$198
16 Markets w/o grinders	0	$3.496	$0	0.0	$0.00	$0	0	$1.836	$0
17 Markets w/ grinders	0	$3.496	$0	0.0	$0.00	$0	0	$1.836	$0
18 Short Order/Take-out	0	$3.496	$0	0.0	$0.00	$0	0	$1.836	$0
19 Restaurants	4	$3.496	$84	4.0	$0.70	$34	438	$1.836	$805
Subtotal - Non-Resid.	48	--	$1,007	48.0	--	$403	8,015	--	$14,712
Total - Resid. & Non-Res.	481	--	$10,089	481.0	--	$4,036	63,436	--	$116,445

Table COS-MID2 (cont.)

Customer Classes	BOD-Related Costs: Units of BOD (lbs/yr) (e)	BOD-Related Costs: Unit Cost ($/lb) (c)	BOD-Related Costs: Annual Rev. Req't.(d)	TSS-Related Costs: Units of TSS (lbs/yr) (e)	TSS-Related Costs: Unit Cost ($/lb) (c)	TSS-Related Costs: Annual Rev. Req't.(d)	Summary of Costs: Cust. & Other Fixed (f)	Summary of Costs: Flow, BOD, & TSS (g)	Summary of Costs: Total Rev. Req't's.
Residential (a)	74,705	$0.2263	$16,902	--	--	--	$12,715	$118,635	$131,350
Low-Strength Commercial								($/hcf)	
1 Professional Office	2,834	$0.2263	$641	--	--	--	$675	$6,876	$7,552
2 Car Wash	0	$0.2263	$0	--	--	--	$0	$0	$0
3 Schools w/o Cafeteria	0	$0.2263	$0	--	--	--	$0	$0	$0
4 Laundromat	626	$0.2263	$142	--	--	--	$29	$1,336	$1,365
5 Beauty Shop	0	$0.2263	$0	--	--	--	$0	$0	$0
6 Dept./Small Retail	0	$0.2263	$0	--	--	--	$0	$0	$0
7 Theaters	0	$0.2263	$0	--	--	--	$0	$0	$0
Medium-Strength Commercial									
8 Schools w/ Cafeteria	528	$0.2263	$119	--	--	--	$88	$1,008	$1,096
9 Service Stations	1,059	$0.2263	$240	--	--	--	$29	$1,922	$1,952
10 Bars w/o Dining	0	$0.2263	$0	--	--	--	$0	$0	$0
11 Church/Fraternal/Clubhouse	1,329	$0.2263	$301	--	--	--	$147	$2,111	$2,258
12 Hospital/Conval. Home	0	$0.2263	$0	--	--	--	$0	$0	$0
13 Hotel/Motel w/o Dining	751	$0.2263	$170	--	--	--	$117	$863	$980
14 Misc. Commercial	886	$0.2263	$201	--	--	--	$176	$1,407	$1,583
High-Strength Commercial									
15 Hotel/Motel w/ Dining	346	$0.2263	$78	--	--	--	$29	$276	$305
16 Markets w/o grinders	0	$0.2263	$0	--	--	--	$0	$0	$0
17 Markets w/ grinders	0	$0.2263	$0	--	--	--	$0	$0	$0
18 Short Order/Take-out	0	$0.2263	$0	--	--	--	$0	$0	$0
19 Restaurants	2,813	$0.2263	$637	--	--	--	$117	$1,441	$1,559
Subtotal - Non-Resid.	11,173	–	$2,528	--	--	--	$1,410	$17,241	$18,650
Total - Resid. & Non-Res.	85,878	–	$19,430	--	--	--	$14,125	$135,875	$150,000

a. Represents all residential classes shown in Table COS-MID1, Customer Accounts & Estimated Flow & Loadings - Middletown Sanitation District (FY'08-09).
b. From Special District Administration's billing records (see Table L-MID1, Customer Accounts & Estimated Flow & Loadings - Middletown Sanitation District).
c. From Table COS-MID1, Total Flow, Loadings, Rev. Reqt's. & Unit Costs - Middletown Sanitation District (FY'08-09).
d. Units times unit costs.
e. From Table L-MID1, Customer Accounts & Estimated Flow & Loadings - Middletown Sanitation District.
f. Total annual Customer Costs and Other Fixed Costs.
g. Total annual revenue requirements per customer class excluding Customer Costs and Other Fixed Costs.

Table COS-MID2 (cont.)

Customer Classes	BOD-Related Costs: Units of BOD (lbs/yr) (e)	BOD-Related Costs: Unit Cost ($/lb) (c)	BOD-Related Costs: Annual Rev. Req't.(d)	TSS-Related Costs: Units of TSS (lbs/yr) (e)	TSS-Related Costs: Unit Cost ($/lb) (c)	TSS-Related Costs: Annual Rev. Req't.(d)	Summary of Costs: Cust. & Other Fixed (f)	Summary of Costs: Flow, BOD, & TSS (g)	Summary of Costs: Total Rev. Req't's.
Residential (a)	74,705	$0.2263	$16,902	--	--	--	$12,715	$118,635	$131,350
Low-Strength Commercial								($/hcf)	
1 Professional Office	2,834	$0.2263	$641	--	--	--	$675	$6,876	$7,552
2 Car Wash	0	$0.2263	$0	--	--	--	$0	$0	$0
3 Schools w/o Cafeteria	0	$0.2263	$0	--	--	--	$0	$0	$0
4 Laundromat	626	$0.2263	$142	--	--	--	$29	$1,336	$1,365
5 Beauty Shop	0	$0.2263	$0	--	--	--	$0	$0	$0
6 Dept./Small Retail	0	$0.2263	$0	--	--	--	$0	$0	$0
7 Theaters	0	$0.2263	$0	--	--	--	$0	$0	$0
Medium-Strength Commercial									
8 Schools w/ Cafeteria	528	$0.2263	$119	--	--	--	$88	$1,008	$1,096
9 Service Stations	1,059	$0.2263	$240	--	--	--	$29	$1,922	$1,952
10 Bars w/o Dining	0	$0.2263	$0	--	--	--	$0	$0	$0
11 Church/Fraternal/Clubhouse	1,329	$0.2263	$301	--	--	--	$147	$2,111	$2,258
12 Hospital/Conval. Home	0	$0.2263	$0	--	--	--	$0	$0	$0
13 Hotel/Motel w/o Dining	751	$0.2263	$170	--	--	--	$117	$863	$980
14 Misc. Commercial	886	$0.2263	$201	--	--	--	$176	$1,407	$1,583
High-Strength Commercial									
15 Hotel/Motel w/ Dining	346	$0.2263	$78	--	--	--	$29	$276	$305
16 Markets w/o grinders	0	$0.2263	$0	--	--	--	$0	$0	$0
17 Markets w/ grinders	0	$0.2263	$0	--	--	--	$0	$0	$0
18 Short Order/Take-out	0	$0.2263	$0	--	--	--	$0	$0	$0
19 Restaurants	2,813	$0.2263	$637	--	--	--	$117	$1,441	$1,559
Subtotal - Non-Resid.	11,173	–	$2,528	--	--	--	$1,410	$17,241	$18,650
Total - Resid. & Non-Res.	85,878	–	$19,430	--	--	--	$14,125	$135,875	$150,000

a. Represents all residential classes shown in Table COS-MID1, Customer Accounts & Estimated Flow & Loadings - Middletown Sanitation District (FY'08-09).
b. From Special District Administration's billing records (see Table L-MID1, Customer Accounts & Estimated Flow & Loadings - Middletown Sanitation District).
c. From Table COS-MID1, Total Flow, Loadings, Rev. Reqt's. & Unit Costs - Middletown Sanitation District (FY'08-09).
d. Units times unit costs.
e. From Table L-MID1, Customer Accounts & Estimated Flow & Loadings - Middletown Sanitation District.
f. Total annual Customer Costs and Other Fixed Costs.
g. Total annual revenue requirements per customer class excluding Customer Costs and Other Fixed Costs.

Table COS-MID3

Summary of Monthly Rates by Customer Class - Middletown Sanitation District *(FY'08-09)*

Lake County Special Districts

	Basic Charge (a)	Bi-Mo. Fixed Rate (b)		Volume Rates			
Residential	($/acct/2 mo.)	EDU Factor (c)	($/EDU/2 mo.)	Rev. Reqt. (d)	Water Use (e)	Vol. Rate (f)	Description
1 Single-Family	$4.89	100%	$39.09	--	--	--	
2 Duplex/Triplex/MH	$4.89	90%	$35.18	--	--	--	
3 Apartments	$4.89	70%	$27.36	--	--	--	
4 Trailer Space	$4.89	20%	$7.82	--	--	--	
5 Vacant	$4.89	0%	$0.00	--	--	--	
Low-Strength Commercial						($/hcf water use)	
1 Professional Office	$4.89	95%	$36.97	$6,876	4,852	$27.36	*1 EDU = 24 employees*
2 Car Wash	$4.89	87%	$34.05	$0	0	$2.79	*Based on Current EDU's*
3 Schools w/o Cafeteria	$4.89	95%	$36.97	$0	0	$3.03	*1 EDU = 40 students*
Schools w/o Cafeteria (per student)	--	--	$0.92	--	--	--	
4 Laundromat	$4.89	96%	$37.50	$1,336	938	$113.78	*1 machine = 1.25 EDU (or 1 EDU = 0.8 machines)*
5 Beauty Shop	$4.89	96%	$37.50	$0	0	$3.07	*1 EDU = 2 stations*
6 Dept./Small Retail	$4.89	96%	$37.50	$0	0	$3.07	*Based on Current EDU's*
7 Theaters	$4.89	96%	$37.50	$0	0	$3.07	*1 EDU = 100 seats*
Medium-Strength Commercial							
8 Schools w/ Cafeteria	$4.89	97%	$38.03	$1,008	691	$30.44	*1 EDU = 17 students*
Schools w/ Cafeteria (per student)	--	--	$1.52	--	--	--	
9 Service Stations	$4.89	98%	$38.30	$1,922	1,310	$162.65	*A 3-pump island = 1.67 EDU*
10 Bars w/o Dining	$4.89	99%	$38.83	$0	0	$3.18	*1 EDU = 15 seats*
11 Church/Fraternal/Clubhouse	$4.89	100%	$39.09	$2,111	1,409	$37.63	*1 EDU = 500 seats*
12 Hospital/Conval. Home	$4.89	103%	$40.15	$0	0	$4.94	*1 bed = 0.67 EDU*
13 Hotel/Motel w/o Dining	$4.89	107%	$41.74	$863	539	$20.42	*1 unit = 0.42 EDU's (or 1 EDU = 2.38 units)*
Hotel/Motel w/o Dining (per unit)	--	--	$17.53	--	--	--	
14 Misc. Commercial	$4.89	100%	$39.09	$1,407	939	$21.99	*Based on Current EDU's*
High-Strength Commercial							
15 Hotel/Motel w/ Dining	$4.89	120%	$46.78	$276	154	$25.45	*1 unit = 0.5 EDU's (or 1 EDU = 2.0 units)*
Hotel/Motel w/ Dining (per unit)	--	--	$15.44	--	--	--	
16 Markets w/o grinders	$4.89	124%	$48.37	$0	0	$3.97	*Based on Current EDU's*
17 Markets w/ grinders	$4.89	140%	$54.74	$0	0	$4.49	*Based on Current EDU's*
18 Short Order/Take-out	$4.89	133%	$52.09	$0	0	$4.27	*1 EDU = 70 seats*
Short Order/Take-out (per seat)	--	1.4%	$0.73	--	--	--	
19 Restaurants	$4.89	154%	$60.04	$1,441	626	$32.47	*1 EDU = 33 seats*
Restaurants (per seat over 33)	--	3%	$1.80	--	--	--	

a. Basic Charges are applied to each account, but not additional EDU's, and include customer and other fixed costs.
b. Represents all revenue requirements not included in the Basic Charge, and is charged based on the number of EDU's.
c. Shows the percent of a full Single-Family (or EDU) rate based on the amount of effluent and the wastewater strength (BOD and TSS).
d. Revenue requirements for Flow, BOD and TSS from Table COS-MID2, Revenue Requirements & Monthly Rates by Customer Class - Middletown Sanitation District (FY'08-09).
e. From Table COS-MID1, Total Flow, Loadings, Rev. Reqt's. & Unit Costs - Middletown Sanitation District (FY'08-09).
f. These are volume charges per hcf of water shown in Table L-MID1, Customer Accounts & Estimated Flow & Loadings - Middletown Sanitation District.

Table COS-MID4
Calculation of Commercial Bi-Monthly Fixed Rates Per EDU - Middletown Sanitation District *(FY'08-09)*
Lake County Special Districts

Customer Classes	EDU *(SFD's)*	Equivalent Treatment Factors *(a)*			Treatment Costs/EDU ($/2 mo.)*(b)*			Fixed Rate per EDU *(c)*
		Avg. hcf/EDU	BOD/EDU	TSS/EDU	Flow (hcf/yr)	BOD (lbs/yr)	TSS (lbs/yr)	
Residential	506	*100.0%*	*100.0%*	*100.0%*	*$33.52*	*$5.57*	--	*$39.09*
Low-Strength Commercial	3							
1 Professional Office		100.0%	61.9%	--	$33.52	$3.448	--	$36.97
2 Car Wash		100.0%	9.5%	--	$33.52	$0.530	--	$34.05
3 Schools w/o Cafeteria		100.0%	61.9%	--	$33.52	$3.448	--	$36.97
Schools w/o Cafeteria (per student)		100.0%	61.9%	--	$0.84	$0.086	--	$0.92
4 Laundromat		100.0%	71.4%	--	$33.52	$3.978	--	$37.50
5 Beauty Shop		100.0%	71.4%	--	$33.52	$3.978	--	$37.50
6 Dept./Small Retail		100.0%	71.4%	--	$33.52	$3.978	--	$37.50
7 Theaters		100.0%	71.4%	--	$33.52	$3.978	--	$37.50
Medium-Strength Commercial	119							
8 Schools w/ Cafeteria		100.0%	81.0%	--	$33.52	$4.509	--	$38.03
Schools w/ Cafeteria (per student)		100.0%	81.0%	--	$1.34	$0.180	--	$1.52
9 Service Stations		100.0%	85.7%	--	$33.52	$4.774	--	$38.30
10 Bars w/o Dining		100.0%	95.2%	--	$33.52	$5.304	--	$38.83
11 Church/Fraternal/Clubhouse		100.0%	100.0%	--	$33.52	$5.570	--	$39.09
12 Hospital/Conval. Home		100.0%	119.0%	--	$33.52	$6.630	--	$40.15
13 Hotel/Motel w/o Dining		100.0%	147.6%	--	$33.52	$8.222	--	$41.74
Hotel/Motel w/o Dining (per unit)		100.0%	147.6%	--	$14.08	$3.453	--	$17.53
14 Misc. Commercial		100.0%	100.0%	--	$33.52	$5.570	--	$39.09
High-Strength Commercial	6							
15 Hotel/Motel w/ Dining		100.0%	238.1%	--	$33.52	$13.261	--	$46.78
Hotel/Motel w/ Dining (per unit)		100.0%	238.1%	--	$11.06	$4.376	--	$15.44
16 Markets w/o grinders		100.0%	266.7%	--	$33.52	$14.852	--	$48.37
17 Markets w/ grinders		100.0%	381.0%	--	$33.52	$21.217	--	$54.74
18 Short Order/Take-out		100.0%	333.3%	--	$33.52	$18.565	--	$52.09
Short Order/Take-out (per seat)		100.0%	333.3%	--	$0.47	$0.260	--	$0.73
19 Restaurants		100.0%	476.2%	--	$33.52	$26.522	--	$60.04
Restaurants (per seat over 33)		100.0%	476.2%	--	$1.01	$0.796	--	$1.80

a. This is the percentage of residential effluent flow and strength and is used to determine the fixed rate for each commercial customer. The BOD and TSS factors reflect the BOD and TSS differences between each commercial class and the residential class.
b. Based on the *"Equivalent Treatment Factor"*, this is the cost per unit for flow, BOD and TSS that goes into the fixed rate.
c. The bi-monthly charge is the sum of the *"Treatment Costs/EDU"* for flow, BOD and TSS.

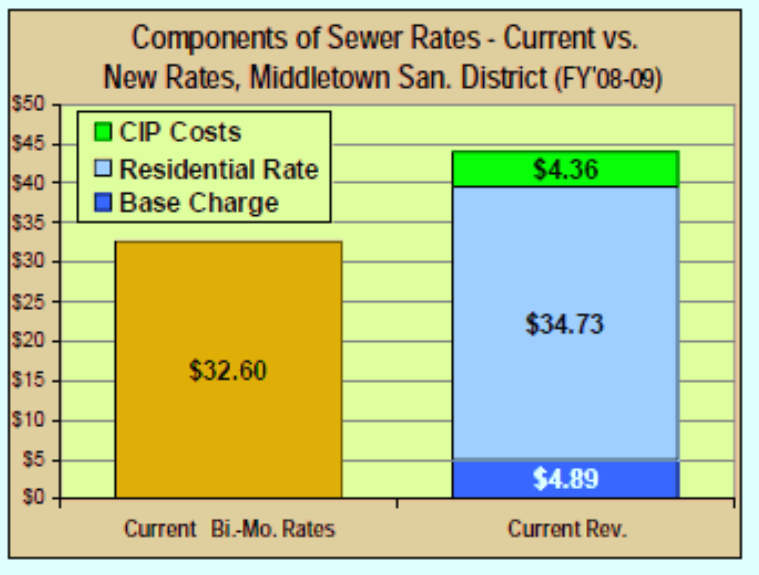


Table PR-MID1
Summary of Recommended Sewer Rates - Middleton Sanitation District
Lake County Special Districts

	Current Charges(a) (bi-monthly)		Projected New Bi-Monthly Sewer Rates (c)											
			2008-09 (b)			2009-10		2010-11		2011-12		2012-13	
Residential	Basic Charge	Ratio/Add'l	Basic Charge	Fixed Rate	Fixed Rate Unit	Basic Charge	Fixed Rate	Basic Charge	Fixed Rate	Basic Charge	Fixed Rate	Basic Charge	Fixed Rate
Single-Family	$32.60	$32.60	$4.89	$39.09	dwelling	$5.63	$44.96	$6.47	$51.70	$7.25	$57.90	$7.97	$63.69
Duplex/Triplex/Mobile Home	$32.60	$32.60	$4.89	$35.18	unit	$5.63	$40.46	$6.47	$46.53	$7.25	$52.11	$7.97	$57.32
Apartments	$32.60	$32.60	$4.89	$27.36	apartment	$5.63	$31.47	$6.47	$36.19	$7.25	$40.53	$7.97	$44.58
Trailer Space w/hook-up	$32.60	$5.05	$4.89	$7.82	space	$5.63	$8.99	$6.47	$10.34	$7.25	$11.58	$7.97	$12.74
Low-Strength Commercial													
Professional Office	$65.20	$1.42	$4.89	$36.97	EDU's	$5.63	$42.52	$6.47	$48.89	$7.25	$54.76	$7.97	$60.24
Car Wash	NA	NA	$4.89	$34.05	EDU's	$5.63	$39.16	$6.47	$45.03	$7.25	$50.44	$7.97	$55.48
Schools w/o Cafeteria	NA	NA	$4.89	$36.97	EDU's	$5.63	$42.52	$6.47	$48.89	$7.25	$54.76	$7.97	$60.24
Schools w/o Cafeteria (per student)	NA	NA	--	$0.92	students	--	$1.06	--	$1.22	--	$1.37	--	$1.51
Laundromat	$65.20	$25.60	$4.89	$37.50	EDU's	$5.63	$43.13	$6.47	$49.59	$7.25	$55.55	$7.97	$61.10
Beauty Shop	$65.20	$34.30	$4.89	$37.50	EDU's	$5.63	$43.13	$6.47	$49.59	$7.25	$55.55	$7.97	$61.10
Dept./Small Retail	$65.20	NA	$4.89	$37.50	EDU's	$5.63	$43.13	$6.47	$49.59	$7.25	$55.55	$7.97	$61.10
Theaters	$65.20	$1.04	$4.89	$37.50	EDU's	$5.63	$43.13	$6.47	$49.59	$7.25	$55.55	$7.97	$61.10
Medium-Strength Commercial													
Schools w/ Cafeteria	$65.20	$65.20	$4.89	$38.03	EDU's	$5.63	$43.74	$6.47	$50.30	$7.25	$56.33	$7.97	$61.96
Schools w/ Cafeteria (per student)	NA	$2.30	--	$1.52	students	--	$1.75	--	$2.01	--	$2.25	--	$2.48
Service Stations	$65.20	$65.20	$4.89	$38.30	EDU's	$5.63	$44.04	$6.47	$50.65	$7.25	$56.72	$7.97	$62.40
Bars w/o Dining	$65.20	NA	$4.89	$38.83	EDU's	$5.63	$44.65	$6.47	$51.35	$7.25	$57.51	$7.97	$63.26
Church/Fraternal/Clubhouse	NA	$33.40	$4.89	$39.09	EDU's	$5.63	$44.96	$6.47	$51.70	$7.25	$57.90	$7.97	$63.69
Hospital/Conval. Home	$65.20	$26.10	$4.89	$40.15	EDU's	$5.63	$46.18	$6.47	$53.10	$7.25	$59.47	$7.97	$65.42
Hotel/Motel w/o Dining	$65.20	$65.20	$4.89	$41.74	EDU's	$5.63	$48.01	$6.47	$55.21	$7.25	$61.83	$7.97	$68.01
Hotel/Motel w/o Dining (per unit)	NA	$5.30	--	$17.53	unit	--	$20.16	--	$23.19	--	$25.97	--	$28.57
Misc. Commercial	$65.20	$65.20	$4.89	$39.09	EDU's	$5.63	$44.96	$6.47	$51.70	$7.25	$57.90	$7.97	$63.69
High-Strength Commercial													
Hotel/Motel w/ Dining	$65.20	$65.20	$4.89	$46.78	EDU's	$5.63	$53.80	$6.47	$61.87	$7.25	$69.29	$7.97	$76.22
Hotel/Motel w/ Dining (per unit)	NA	$6.50	--	$15.44	unit	--	$17.75	--	$20.42	--	$22.87	--	$25.15
Markets w/o grinders	NA	NA	$4.89	$48.37	EDU's	$5.63	$55.63	$6.47	$63.97	$7.25	$71.65	$7.97	$78.82
Markets w/ grinders	NA	NA	$4.89	$54.74	EDU's	$5.63	$62.95	$6.47	$72.39	$7.25	$81.08	$7.97	$89.19
Short Order/Take-out	$65.20	$65.20	$4.89	$52.09	EDU's	$5.63	$59.90	$6.47	$68.89	$7.25	$77.15	$7.97	$84.87
Short Order/Take-out (per seat)	NA	NA	--	$0.73	seat	--	$0.84	--	$0.96	--	$1.08	--	$1.19
Restaurants	$65.20	$65.20	$4.89	$60.04	EDU's	$5.63	$69.05	$6.47	$79.41	$7.25	$88.94	$7.97	$97.83
Restaurants (per seat over 33)	NA	NA	--	$1.80	seat	--	$2.07	--	$2.38	--	$2.67	--	$2.93
Financial Plan Rate Increase	-	-	*20.0%*			*15.0%*		*15.0%*		*12.0%*		*10.0%*	

a. From Lake County current rate codes and ordinances.
b. Basic charges are applied per account, while the fixed rate is per unit as shown. From Table COS-MID3, Summary of Monthly Rates by Customer Class - Middletown District (FY'08-09).
c. Projected rates in 2009-10 and later are calculated using the 2008-09 rates and the "Financial Plan Rate Increase" shown at the bottom of the table.

APPENDIX B LOCAL GOVERNMENT ISSUES

1 Municipal Financial Constraints

Municipal service providers are constrained in their capacity to finance services by the inability to increase property taxes, requirements for voter approval for new or increased taxes, and requirements of voter approval for parcel taxes and assessments used to finance services. Municipalities must obtain majority voter approval to increase or impose new general taxes and two-thirds voter approval for special taxes.

Limitations on property tax rates and increases in taxable property values are financing constraints. Property tax revenues are subject to a formulaic allocation and are vulnerable to State budget needs. Agencies formed since the adoption of Proposition 13 in 1978 often lack adequate financing.

1.1 California Local Government Finance Background

The financial ability of the cities to provide services is affected by financial constraints. City service providers rely on a variety of revenue sources to fund city operating costs as follows:

- Property Taxes
- Benefit Assessments
- Special Taxes
- Proposition 172 Funds
- Other contributions from city general funds

As a funding source, property taxes are constrained by statewide initiatives that have been passed by voters over the years and special legislation. Seven of these measures are explained below:

A. Proposition 13

Proposition 13 (which California voters approved in 1978) has the following three impacts:

- It limits the ad valorem property tax rate.
- It limits growth of the assessed value of property.
- It requires voter approval of certain local taxes.

Generally, this measure fixes the ad valorem tax at one percent of the value at most recent sale; except for taxes to repay certain voter approved bonded indebtedness. In response to the adoption of Proposition 13, the Legislature enacted Assembly Bill 8 (AB 8) in 1979 to establish property tax allocation formulas.

B. AB 8

AB 8 allocates property tax revenue to the local agencies within each tax rate area based on the proportion each agency received during the three fiscal years preceding adoption of Proposition 13. This allocation formula benefits local agencies which had relatively high tax rates at the time Proposition 13 was enacted (1978).

C. Proposition 98

Proposition 98, which California voters approved in 1988, requires the State to maintain a minimum level of school funding. In 1992 and 1993, the Legislature began shifting billions of local property taxes to schools in response to State budget deficits. Local property taxes were diverted from local governments into the Educational Revenue Augmentation Fund (ERAF) and transferred to school districts and community college districts to reduce the amount paid by the State general fund. Local agencies throughout the State lost significant property tax revenue due to this shift. Proposition 172 was enacted to help offset property tax revenue losses of cities and counties that were shifted to the ERAF for schools in 1992.

D. Proposition 172

Proposition 172, enacted in 1993, provides the revenue of a half-cent sales tax to counties and cities for public safety purposes, including police, fire, district attorneys, corrections and lifeguards. Proposition 172 also requires cities and counties to continue providing public safety funding at or above the amount provided in FY 92-93.

E. Proposition 218

Proposition 218, which California voters approved in 1996, requires voter- or property owner-approval of increased local taxes, assessments, and property-related fees. A two-thirds affirmative vote is required to impose a Special Tax, for example, a tax for a specific purpose such as a fire district special tax.

However, majority voter approval is required for imposing or increasing general taxes such as business license or utility taxes, which can be used for any governmental purpose.
These requirements do not apply to user fees, development impact fees and Mello-Roos districts.

F. Mello-Roos Community Facilities Act

The Mello-Roos Community Facilities Act of 1982 allows any county, city, special district, school district or joint powers authority to establish a Mello-Roos Community Facilities District (a "CFD") which allows for financing of public improvements and services.

The services and improvements that Mello-Roos CFDs can finance include streets, sewer systems and other basic infrastructure, police protection, fire protection, ambulance services, schools, parks, libraries, museums and other cultural facilities. By law, the CFD is also entitled to recover expenses needed to form the CFD and administer the annual special taxes and bonded debt.

A CFD is created by a sponsoring local government agency. The proposed district will include all properties that will benefit from the improvements to be constructed or the services to be provided. A CFD cannot be formed without a two-thirds majority vote of residents living within the proposed boundaries. Or, if there are fewer than 12 residents, the vote is instead conducted of current landowners.

In many cases, that may be a single owner or developer. Once approved, a Special Tax Lien is placed against each property in the CFD. Property owners then pay a Special Tax each year. If the project cost is high, municipal bonds will be sold by the CFD to provide the large amount of money initially needed to build the improvements or fund the services.

The Special Tax cannot be directly based on the value of the property. Special Taxes instead are based on mathematical formulas that take into account property characteristics such as use of the property, square footage of the structure and lot size. The formula is defined at the time of formation, and will include a maximum special tax amount and a percentage maximum annual increase.

If bonds were issued by the CFD, special taxes will be charged annually until the bonds are paid off in full. Often, after bonds are paid off, a CFD will continue to charge a reduced fee to maintain the improvements.

G. Development Impact Fees

A county, cities, special districts, school districts, and private utilities may impose development impact fees on new construction for purposes of defraying the cost of putting in place public infrastructure and services to support new development.

To impose development impact fees, a jurisdiction must justify the fees as an offset to the impact of future development on facilities. This usually requires a special financial study. The fees must

be committed within five years to the projects for which they were collected, and the district, city or county must keep separate funds for each development impact fee.

1.2 Financing Opportunities that Require Voter Approval

Financing opportunities that require voter approval include the following:
1) Special taxes such as parcel taxes
2) Increases in general taxes such as the following:
   - Utility taxes
   - Sales and use taxes
   - Business license taxes
   - Transient occupancy taxes

Communities may elect to form business improvement districts to finance supplemental services, or Mello-Roos districts to finance development-related infrastructure extension. Agencies may finance facilities with voter-approved (general obligation) bonded indebtedness.

1.3 Financing Opportunities that Do Not Require Voter Approval

Financing opportunities that do not require voter approval include imposition of or increases in fees to more fully recover the costs of providing services, including user fees and Development Impact Fees to recover the actual cost of services provided and infrastructure.

Development Impact Fees and user fees must be based on reasonable costs, and may be imposed and increased without voter approval. Development Impact Fees may not be used to subsidize operating costs.

Agencies may also finance many types of facility improvements through bond instruments that do not require voter approval.

Water rates and rate structures are not subject to regulation by other agencies. Utility providers may increase rates annually, and often do so. Generally, there is no voter approval requirement for rate increases, although notification of utility users is required. Water providers must maintain an enterprise fund for the respective utility separate from other funds, and may not use revenues to finance unrelated governmental activities.

2 Public Management Standards

While public sector management standards do vary depending on the size and scope of an organization, there are minimum standards. Well-managed organizations do the following eight activities:
1) Evaluate employees annually.
2) Prepare a budget before the beginning of the fiscal year.
3) Conduct periodic financial audits to safeguard the public trust.
4) Maintain current financial records.
5) Periodically evaluate rates and fees.
6) Plan and budget for capital replacement needs.
7) Conduct advance planning for future growth.
8) Make best efforts to meet regulatory requirements.

Most of the professionally managed and staffed agencies implement many of these best management practices. LAFCO encourages all local agencies to conduct timely financial record-keeping for each city function and make financial information available to the public.

3 Public Participation in Government

The Brown Act (California Government Code Section 54950 et seq.) is intended to insure that public boards shall take their actions openly and that deliberations shall be conducted openly. The Brown Act establishes requirements for the following:

- Open meetings
- Agendas that describe the business to be conducted at the meeting
- Notice for meetings
- Meaningful opportunity for the public to comment

Few exceptions for meeting in closed sessions and reports of items discussed in closed sessions.

According to California Government Section 54959

Each member of a legislative body who attends a meeting of that legislative body where action is taken in violation of any provision of this chapter, and where the member intends to deprive the public of information to which the member knows or has reason to know the public is entitled under this chapter, is guilty of a misdemeanor.

Section 54960 states the following:

(a) The district attorney or any interested person may commence an action by mandamus, injunction or declaratory relief for the purpose of stopping or preventing violations or threatened violations of this chapter by members of the legislative body of a local agency or to determine the applicability of this chapter to actions or threatened future action of the legislative body,...

ABBREVIATIONS

AB	Assembly Bill
AD	Assessment District
ADWF	Average Dry Weather Flows
AWWA	American Water Works Association
AWWF	Average Wet Weather Flows
BOD	Biological Oxygen Demand
CDO	Cease and Desist Order
CEQA	California Environmental Quality Act
CIP	Capital Improvement Program
CKH Act	Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000
CLMSD	City of Lakeport Municipal Services District
CLOWD	Clearlake Oaks County Water District
CPI	Consumer Price Index
CSD	County Service Area
CSD	Community Service District
CVRWQCB	Central Valley Regional Water Quality Control Board
CWPCA	California Water Pollution Control Association
District	LACOSAN
EPA	Environmental Protection Agency (US)
FOG	fat, oil and grease
FY	Fiscal Year
gpd	gallons per day
gpm	gallons per minute
HVLCSD	Hidden Valley Lake Community Services District
I&I	Inflow and Infiltration
JOC	Joint Operating Committee
KCWD	Kelseyville County Waterworks District #3
LACOSAN	Lake County Sanitation District
LAFCO	Local Agency Formation Commission
LAIF	Local Agency Investment Fund
LCEHD	Lake County Environmental Health Department
mgd	Million Gallons per Day

MSR	Municipal Service Review (LAFCO)
MW	Mega-Watts
MWh	mega-watt hours
NCPA	Northern California Power Agency
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NW	Northwest
NWRTP	Northwest Regional Treatment Plant
O&M	Operation and Maintenance
PDF	peak day flow
pH	A measure of acidity
PHF	peak hour flow
PG&E	Pacific Gas & Electric Company
PMF	peak month flow
R&R	Repair and Replacement Fund
RUE	Residential Unit Equivalent
RWQCB	Regional Water Quality Control Board (California)
SCADA	Supervisory Control and Data Acquisition System
SCFs	System Capacity Fees
SDA	Special Districts Administration (Lake County)
SE	Southeast
SEGEP	Southeast Geysers Effluent Pipeline
SERTP	Southeast Regional Treatment Plant
SFD	Single-Family Dwelling Unit
SOI	Sphere of Influence (LAFCO)
SRF	State Revolving Loan Fund
SSMP	Sewer System Master Plan
STEP	Septic Tank Effluent Pump
TSS	Total Suspended Solids
US	United States
WDR	Waste Discharge Requirement
WTP	Wastewater Treatment Plant

DEFINITIONS

Aquifer: An underground, water-bearing layer of earth, porous rock, sand, or gravel, through which water can seep or be held in natural storage. Aquifers generally hold sufficient water to be used as a water supply.

Average base flow (ABF): Flow in the sanitary sewer during dry-weather months, measured when no appreciable rain is falling. Base flow consists of sanitary flow plus groundwater infiltration.

Average dry-weather flow (ADWF): The 30-day rolling average wastewater flow from May through October.

Average wet-weather flow (AWWF): The 30-day rolling average wastewater flow from November through April.

Bond: An interest-bearing promise to pay a stipulated sum of money, with the principal amount due on a specific date. Funds raised through the sale of bonds can be used for various public purposes.

Capital Improvements Program (CIP): A program established by a Public Agency and reviewed by the Governing Body which schedules permanent improvements, usually for a minimum of five years in the future, to fit the projected fiscal capability of the City. The Program generally is reviewed annually, for conformance to and consistency with the General Plan.

California Environmental Quality Act (CEQA): A State Law requiring State and local agencies to regulate activities with consideration for environmental protection. If a proposed activity has the potential for a significant adverse environmental impact, an environmental impact report (EIR) must be prepared and certified as to its adequacy before taking action on the proposed project.

Community Facilities District: Under the Mello-Roos Community Facilities Act of 1982 (Section 53311, et seq.) a legislative body may create within its jurisdiction a special tax district that can finance tax-exempt bonds for the planning, design, acquisition, construction, and/or operation of public facilities, as well as public services for district residents. Special taxes levied solely within the district are used to repay the bonds.

Community Services District (CSD): A geographic subarea of a county used for planning and delivery of parks, recreation, and other human services based on an assessment of the service needs of the population in that subarea. A CSD is a taxation district with independent administration.

Crown (of the sewer): The upper portion of the sewer pipes.

Design flow: The selected flow condition for wastewater collection system design, determined by adding corresponding peak sanitary flow and peak groundwater infiltration. This is also referred to as peak dry-weather flow.

Design storm: An abstraction based on historical data that determines the amount of stormwater inflow and rainfall-dependent infiltration.

Dry-weather flow: Wastewater flow monitored during the dry season, occurring May through October which consists of sanitary flow and groundwater infiltration.

Excessive infiltration and inflow: The quantities of infiltration inflow that can be economically eliminated from a wastewater collection system by rehabilitation, as determined by a cost-effective analysis.

Groundwater: Water under the earth's surface, often confined to aquifers capable of supplying wells and springs.

Groundwater infiltration: Infiltration that enters pipeline and manhole defects located below the groundwater table. Groundwater infiltration is at a maximum during wet weather and might drop to near zero in the dry months.

House connection sewer: A sewer, within the public street or right-of-way, proposed to connect any parcel, lot, or part of a lot with a mainline sewer. This sewer has also been referred to as a lower lateral.

House sewer: A sewer, wholly within private property, proposed to connect any building to a house connection sewer. This sewer has also been referred to as an upper lateral.

Impact Fee: A fee, also called a development fee, levied on the developer of a project by a county, or other public agency as compensation for otherwise-unmitigated impacts the project will produce. California Government Code Section 66000, et seq., specifies that development fees shall not exceed the estimated reasonable cost of providing the service for which the fee is charged. To lawfully impose a development fee, the public agency must verify its method of calculation and document proper restrictions on use of the fund.

Infiltration: The water entering a sewer system and service connections from the ground, through such means as, but not limited to, defective pipes, pipe joints, connections, or manhole walls. Infiltration does not include, and is distinguished from, inflow.

Infiltration and inflow (I&I): The collective term used to describe the extraneous flow in a wastewater collection system from either rainfall-dependent infiltration and inflow or groundwater infiltration.

Infiltration and inflow analysis: An engineering and, if appropriate, an economic analysis demonstrating possible excessive or nonexcessive infiltration and inflow.

Inflow: The water discharged into a sewer system, including service connections, from such sources as, but not limited to, roof leaders, cellar, yard and area drains, foundation drains, cooling water discharges, drains from springs and swampy areas, maintenance hole covers, cross connections from storm sewers and combined sewers, catch basins, storm sewers, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.

Infrastructure: Public services and facilities such as sewage-disposal systems, water-supply systems, and other utility systems, schools and roads.

Invert: The lower interior portion of the sewer pipe. Also, the bottom portion of the manhole structure used to convey wastewater from one pipe segment to another.

Local Agency Formation Commission (LAFCO): A five-or seven-member commission within each county that reviews and evaluates all proposals for formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and merger of districts with cities. Each county's LAFCO is empowered to approve, disapprove, or conditionally approve such proposals. The LAFCO members generally include two county

supervisors, two city council members, and one member representing the general public. Some LAFCOs include two representatives of special districts.

Megawatt Hour (MWh): One thousand kilowatt-hours or an amount of electricity that would supply the monthly power needs of 1,000 typical homes in the Western U.S. (This is a rounding up to 8,760 kWh/year per home based on an average of 8,549 kWh used per household per year [U.S. DOE EIA, 1997 annual per capita electricity consumption figures]).

Peak-day flow (PDF): The maximum daily flow occurring during the calendar. Typically occurs during wet-weather events and can also be referred to as peak wet-weather flow.

Peak dry-weather flow (PDWF): Peak daily sanitary flow plus groundwater infiltration.

Peak hourly dry-weather flow (PHDWF): Peak hourly sanitary flow plus groundwater infiltration.

Peak hourly wet-weather flow (PHWWF): Peak hourly wet-weather flow plus peak rainfall-dependent infiltration and inflow from rainfall events. This value was estimated by multiplying the peak wet-weather flow by a factor of 1.3.

Peak wet-weather flow (PWWF): Peak daily wet-weather flow plus peak rainfall-dependent infiltration and inflow from rainfall events.

Peaking Factor: The ratio of peak hourly wet-weather flow to base flow.

Physical survey: An activity of the Sewer System Evaluation Survey. This activity involves determining specific flow characteristics, groundwater levels, and physical condition of the sewer system that had previously been determined to contain possibly excessive infiltration and inflow.

Preparatory cleaning: An activity of the Sewer System Evaluation Survey. This activity involves adequate cleaning of sewer lines prior to inspection. These sewers were previously identified as potential sections of excessive infiltration and inflow.

Rainfall-dependent infiltration (RDI): Rainfall runoff that indirectly enters a sewer system and service connections during and shortly after a rainfall event through such sources as, but not limited to, defective pipes, pipe joints, connections, and manholes.

Rainfall-dependent infiltration and inflow (RDI&I): Rainfall runoff from both infiltration and inflow sources that enters the wastewater collection system during and shortly after a rain event. RDI&I consists of stormwater inflow and rainfall-dependent infiltration.

Sanitary flow: Wastewater flow generated by residential, commercial, and industrial (including institutional) users. It does not include infiltration and inflow.

Sanitary Sewer: A sanitary sewer system is comprised of pipes, pump stations, manholes, and other facilities that convey untreated wastewater from the various sources around the County to treatment facilities.[104]

Septic System: A sewage-treatment system that includes a settling tank through which liquid sewage flows and in which solid sewage settles and is decomposed by bacteria in the absence of oxygen. Septic systems are often used for individual-home waste disposal where an urban sewer system is not available.

[104] Lake County, General Plan 2008, Page 5-2.

Service lateral: A sewer connecting a building or house to the mainline sewer.

Sewage: Sewage is the liquid waste from toilets, baths, showers, kitchens, etc. that is disposed of via sewers. In many areas sewage also includes some liquid waste from industry and commerce.

Sewage (or domestic wastewater) treatment: Sewage treatment is the process of removing contaminants from sewage. It includes physical, chemical and biological processes to remove physical, chemical and biological contaminants. Its objective is to produce a waste stream (or treated effluent) and a solid waste or sludge also suitable for discharge or reuse back into the environment. This material is often inadvertently contaminated with toxic organic and inorganic compounds.

Sewer Information Maintenance and Management System (SIMMS): A computer program that provides a means of tracking and organizing sewer maintenance schedules.

Sewer System Evaluation Survey: A systematic detailed examination of a sewer system that determines for each defined source of infiltration and inflow a specific location, quantity of flow, method of rehabilitation, and cost of rehabilitation versus cost of transportation and treatment. The elements of this program include flow monitoring, manhole and building inspection, storm sewer flooding, smoke testing, cleaning and internal inspection of the sanitary sewer system, and identification of all sources of infiltration and inflow.

Sewer System Rehabilitation Program: The rehabilitation and repair work necessary for the elimination of excessive infiltration and inflow. Elements considered in this program include grouting of sewer joints and laterals, lining of sewer lines/laterals, re-laying of sewer lines/laterals, grouting/replacement of manholes, and removal of direct connections such as roof leaders, sump pumps, and catch basins.

Single-family dwelling (SFD) unit equivalent: A unit of measure equal to 210 gallons per day, used to standardize the amount of wastewater generated by a single-family residence.

Sludge is the residual semi-solid material left from wastewater treatment processes. When fresh sewage or wastewater is added to a settling tank, approximately 50% of the suspended solid matter will settle out in about an hour and a half. This collection of solids is known as raw sludge or primary solids and is said to be "fresh" before anaerobic processes become active. Once anaerobic bacteria take over, the sludge will become putrescent in a short time and must be removed from the sedimentation tank before this happens.

Sphere of Influence (SOI): The probable physical boundaries and service area of a local agency, as determined by the Local Agency Formation Commission (LAFCO) of the county.

Stormwater inflow: Rainfall runoff that enters the wastewater collection system through direct connections such as catch basins, downspouts, and area drains.

Surcharge: A condition occurring in sewers when flows exceeding the sewer's capacity are imposed on the system, causing the hydraulic grade line to rise above the sewer crown.

System Analysis Model: A computer program used to model a sanitary sewer system for various flow conditions.

Terminal pump station (PS): A pump station that discharges into a force main that conveys flow directly to the Wastewater Treatment Plant.

Urban: Of, relating to, characteristic of, or constituting a city. Urban areas are generally characterized by moderate and higher density residential development (i.e., three or more

dwelling units per acre), commercial development, and industrial development, and the availability of public services required for that development, specifically central water and sewer service, an extensive road network, public transit, and other such services (e.g., safety and emergency response). Development not providing such services may be "non-urban" or "rural". CEQA defines "urbanized area" as an area that has a population density of at least 1,000 persons per square mile (Public Resources Code Section 21080.14(b)).

Urban Services: Utilities (such as water, gas, electricity, and sewer) and public services (such as police, fire protection, schools, parks, and recreation) provided to an urbanized or urbanizing area.

Wastewater: Wastewater is sewage (either treated or untreated) from residential, commercial, industrial, and institutional sources.[105]

Wastewater Collection System: The totality of the pipes, pump stations, manholes, and other facilities that convey untreated wastewater from the various sources within the County.[106]

Wastewater flow: Total flow within the wastewater collection system, consisting of both sanitary flow and infiltration and inflow.

Wet-weather flow: Flow monitored during the rainy season, occurring November through April. Includes sanitary flow, groundwater infiltration, and rainfall-dependent infiltration and inflow.

[105] Lake County, General Plan 2008, Page 5-2.
[106] Lake County, General Plan 2008, Page 5-2.

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SEARCH CRITERIA: STATUS = certified, Spill Type = (Category 1; Category 2; Category 3)
Sanitary Sewer System = Southeast Regional Waste Disp Fac CS

WDID	AGENCY	COLLECT	APPEAR_PT	PLACE_ID
5SSO11055	Lake Cnty	Southeast	Other (specify)	657842
5SSO11055	Lake Cnty	Southeast	Manhole	658100
5SSO11055	Lake Cnty	Southeast	Manhole	705311
5SSO11055	Lake Cnty	Southeast	Manhole	706698
5SSO11055	Lake Cnty	Southeast	Manhole	710725
5SSO11055	Lake Cnty	Southeast	Manhole	710730
5SSO11055	Lake Cnty	Southeast	Manhole	711866
5SSO11055	Lake Cnty	Southeast	Manhole	711868
5SSO11055	Lake Cnty	Southeast	Manhole	714445
5SSO11055	Lake Cnty	Southeast	Manhole	716938
5SSO11055	Lake Cnty	Southeast	Manhole	717892
5SSO11055	Lake Cnty	Southeast	Other (specify)	722590
5SSO11055	Lake Cnty	Southeast	Other (specify)	726322
5SSO11055	Lake Cnty	Southeast	Manhole	730621
5SSO11055	Lake Cnty	Southeast	Manhole	732169
5SSO11055	Lake Cnty	Southeast	Manhole	734023
5SSO11055	Lake Cnty	Southeast	Manhole	737900
5SSO11055	Lake Cnty	Southeast	Manhole;Other (specify)	746762
5SSO11055	Lake Cnty	Southeast	Manhole	746780
5SSO11055	Lake Cnty	Southeast	Manhole	748416
5SSO11055	Lake Cnty	Southeast	Manhole	748461
5SSO11055	Lake Cnty	Southeast	Manhole	748485
5SSO11055	Lake Cnty	Southeast	Manhole	748804
5SSO11055	Lake Cnty	Southeast	Manhole	756624
5SSO11055	Lake Cnty	Southeast	Manhole	756692
5SSO11055	Lake Cnty	Southeast	Manhole	757304
5SSO11055	Lake Cnty	Southeast	Manhole	762743
5SSO11055	Lake Cnty	Southeast	Manhole	762756
5SSO11055	Lake Cnty	Southeast	Manhole	764498
5SSO11055	Lake Cnty	Southeast	Manhole	764508
5SSO11055	Lake Cnty	Southeast	Manhole	764756
5SSO11055	Lake Cnty	Southeast	Manhole	764763
5SSO11055	Lake Cnty	Southeast	Manhole	766798
5SSO11055	Lake Cnty	Southeast	Manhole	766961
5SSO11055	Lake Cnty	Southeast	Manhole	768552
5SSO11055	Lake Cnty	Southeast	Manhole	768663
5SSO11055	Lake Cnty	Southeast	Manhole	768969
5SSO11055	Lake Cnty	Southeast	Manhole	771963
5SSO11055	Lake Cnty	Southeast	Manhole	772070
5SSO11055	Lake Cnty	Southeast	Manhole	772461
5SSO11055	Lake Cnty	Southeast	Manhole	778381
5SSO11055	Lake Cnty	Southeast	Manhole	794275
5SSO11055	Lake Cnty	Southeast	Force main or pressure sewer	794558
5SSO11055	Lake Cnty	Southeast	Lateral Clean Out (Private)	799466

5SSO11055	Lake Cnty	Southeast	Manhole	802271
5SSO11055	Lake Cnty	Southeast	Lateral Clean Out (Private)	802574
5SSO11055	Lake Cnty	Southeast	Manhole	807070
5SSO11055	Lake Cnty	Southeast	Manhole	807223
5SSO11055	Lake Cnty	Southeast	Other sewer system structure	809797
5SSO11055	Lake Cnty	Southeast	Manhole	809988
5SSO11055	Lake Cnty	Southeast	Manhole	811175
5SSO11055	Lake Cnty	Southeast	Manhole	811383
5SSO11055	Lake Cnty	Southeast	Manhole	811732
5SSO11055	Lake Cnty	Southeast	Manhole	820442
5SSO11055	Lake Cnty	Southeast	Manhole	821925
5SSO11055	Lake Cnty	Southeast	Manhole	823028
5SSO11055	Lake Cnty	Southeast	Manhole	823711
5SSO11055	Lake Cnty	Southeast	Manhole	829614
5SSO11055	Lake Cnty	Southeast	Manhole	829672
5SSO11055	Lake Cnty	Southeast	Manhole	831500
5SSO11055	Lake Cnty	Southeast	Manhole	832070
5SSO11055	Lake Cnty	Southeast	Manhole	832459
5SSO11055	Lake Cnty	Southeast	Lateral Clean Out (Private)	832818
5SSO11055	Lake Cnty	Southeast	Manhole	832905
5SSO11055	Lake Cnty	Southeast	Lateral Clean Out (Private)	833533
5SSO11055	Lake Cnty	Southeast	Manhole	855292
5SSO11055	Lake Cnty	Southeast	Manhole	856098
5SSO11055	Lake Cnty	Southeast	Manhole	856106
5SSO11055	Lake Cnty	Southeast	Manhole	856626
5SSO11055	Lake Cnty	Southeast	Manhole	856627
5SSO11055	Lake Cnty	Southeast	Manhole	856657
5SSO11055	Lake Cnty	Southeast	Manhole	856819
5SSO11055	Lake Cnty	Southeast	Manhole	862067
5SSO11055	Lake Cnty	Southeast	Pump station	862232
5SSO11055	Lake Cnty	Southeast	Manhole	863354
5SSO11055	Lake Cnty	Southeast	Manhole	865522
5SSO11055	Lake Cnty	Southeast	Inside Building or Structure	869231
5SSO11055	Lake Cnty	Southeast	Manhole	872184
5SSO11055	Lake Cnty	Southeast	Manhole	875430
5SSO11055	Lake Cnty	Southeast	Lateral Clean Out (Private)	876244
5SSO11055	Lake Cnty	Southeast	Lateral Clean Out (Public)	878072
5SSO11055	Lake Cnty	Southeast	Manhole	882401
5SSO11055	Lake Cnty	Southeast	Inside Building or Structure;Manhole	884225
5SSO11055	Lake Cnty	Southeast	Manhole	884884
5SSO11055	Lake Cnty	Southeast	Manhole	885305
5SSO11055	Lake Cnty	Southeast	Manhole	885319
5SSO11055	Lake Cnty	Southeast	Manhole	885320
5SSO11055	Lake Cnty	Southeast	Manhole	886125
5SSO11055	Lake Cnty	Southeast	Manhole	887069
5SSO11055	Lake Cnty	Southeast	Force Main;Manhole	887225
5SSO11055	Lake Cnty	Southeast	Manhole	887392
5SSO11055	Lake Cnty	Southeast	Force Main,Other (specify below)	892231
5SSO11055	Lake Cnty	Southeast	Manhole	893241

5SSO11055	Lake Cnty	Southeast	Manhole	893287
5SSO11055	Lake Cnty	Southeast	Manhole	893290
5SSO11055	Lake Cnty	Southeast	Manhole	893545
5SSO11055	Lake Cnty	Southeast	Manhole	893619
5SSO11055	Lake Cnty	Southeast	Manhole	896695
5SSO11055	Lake Cnty	Southeast	Manhole	896701
5SSO11055	Lake Cnty	Southeast	Manhole	900408
5SSO11055	Lake Cnty	Southeast	Other Sewer System Structure	901002
5SSO11055	Lake Cnty	Southeast	Lower Lateral (Private),Manhole	901744
5SSO11055	Lake Cnty	Southeast	Gravity Mainline	901824
5SSO11055	Lake Cnty	Southeast	Lateral Clean Out (Public)	902274
5SSO11055	Lake Cnty	Southeast	Manhole	903147
5SSO11055	Lake Cnty	Southeast	Manhole	903718
5SSO11055	Lake Cnty	Southeast	Manhole	904511
5SSO11055	Lake Cnty	Southeast	Lateral Clean Out (Private)	904592
5SSO11055	Lake Cnty	Southeast	Lateral Clean Out (Private)	904737
5SSO11055	Lake Cnty	Southeast	Manhole	904742
5SSO11055	Lake Cnty	Southeast	Force Main	904788

REGION	SPILL_TYPE	SPILL_VOL	SPILL_VOL_REACH_SURF
5	Category 1	240	240
5	Category 3	50	-
5	Category 1	30	25
5	Category 3	210	-
5	Category 1	7,650	7,650
5	Category 1	800	800
5	Category 1	9,000	9,000
5	Category 1	8,850	8,850
5	Category 3	15	-
5	Category 1	3,450	50
5	Category 3	90	-
5	Category 3	510	-
5	Category 2	1,750	-
5	Category 1	231	231
5	Category 3	125	-
5	Category 3	236	-
5	Category 1	300	300
5	Category 1	30	10
5	Category 3	150	-
5	Category 1	4,110	4,110
5	Category 1	15,300	15,300
5	Category 1	270	270
5	Category 1	2,280	2,280
5	Category 3	70	-
5	Category 3	20	-
5	Category 3	180	-
5	Category 3	5	-
5	Category 3	270	-
5	Category 3	70	-
5	Category 1	3,000	3,000
5	Category 1	9,000	9,000
5	Category 1	1,365	1,365
5	Category 3	40	-
5	Category 1	1,250	125
5	Category 3	200	-
5	Category 1	40	4
5	Category 3	500	-
5	Category 3	10	-
5	Category 3	400	-
5	Category 1	200	10
5	Category 1	125	19
5	Category 2	2,520	-
5	Category 1	45	45
5	Category 3	450	-

5	Category 3	25	-
5	Category 3	72	-
5	Category 3	183	-
5	Category 3	210	-
5	Category 2	14,400	-
5	Category 3	300	-
5	Category 1	420	420
5	Category 1	31,000	31,000
5	Category 2	2,700	-
5	Category 3	80	-
5	Category 3	100	-
5	Category 2	3,600	-
5	Category 3	114	-
5	Category 3	54	-
5	Category 3	300	-
5	Category 1	46,950	46,950
5	Category 1	180	180
5	Category 3	240	-
5	Category 3	210	-
5	Category 1	4,200	1,200
5	Category 3	53	-
5	Category 2	9,500	-
5	Category 1	10,125	10,125
5	Category 1	192,950	192,950
5	Category 1	15,000	15,000
5	Category 1	85,500	85,500
5	Category 1	2,430	2,430
5	Category 1	5,080	5,080
5	Category 3	150	-
5	Category 3	75	-
5	Category 3	500	-
5	Category 3	5	-
5	Category 3	450	-
5	Category 2	5,000	-
5	Category 2	5,000	-
5	Category 3	149	-
5	Category 3	68	-
5	Category 3	150	-
5	Category 2	1,900	-
5	Category 3	350	-
5	Category 1	280	280
5	Category 1	1,400	1,400
5	Category 1	350	350
5	Category 3	150	-
5	Category 1	40	40
5	Category 1	600,000	600,000
5	Category 2	201,600	-
5	Category 1 Spill	40,787	24,287
5	Category 1 Spill	11,340	11,340

5	Category 2 Spill	1,000	-
5	Category 1 Spill	32,760	32,760
5	Category 1 Spill	1,450	1,450
5	Category 1 Spill	4,967	4,967
5	Category 1 Spill	150	75
5	Category 1 Spill	450	-
5	Monthly Category 3 Spill	166	-
5	Category 1 Spill	25,850	6,187
5	Category 1 Spill	182	135
5	Monthly Category 3 Spill	622	-
5	Monthly Category 3 Spill	420	-
5	Category 2 Spill	3,321	-
5	Monthly Category 3 Spill	60	-
5	Category 2 Spill	4,500	-
5	Category 1 Spill	2,260	330
5	Category 1 Spill	43,157	39,480
5	Category 1 Spill	67,900	67,900
5	Category 1 Spill	1,308,620	3,900
		2,868,992	1,248,400
	0.824818961	2,366,399	794,881

SPILL_VOL_RECOVER	START_DT		WHERE_FAILURE_OCCUR
-	2007.09.21	07.30.00	null
-	2007.09.26	06.20.00	null
5	2007.10.15	14.50.00	null
200	2007.10.26	15.15.00	null
-	2008.01.04	08.15.00	null
-	2008.01.04	15.45.00	null
-	2008.01.25	23.00.00	null
-	2008.01.25	21.10.00	null
15	2008.02.29	11.45.00	null
3,400	2008.05.03	11.10.00	null
90	2008.05.19	09.32.00	null
-	2008.07.16	08.23.00	null
-	2008.09.15	14.30.00	Other (specify below)
-	2008.12.16	08.48.00	Main
-	2009.01.20	13.25.00	null
189	2009.02.24	08.27.00	Main
-	2009.05.24	13.00.00	Main
20	2009.11.14	17.25.00	null
143	2009.11.16	09.30.00	Main
-	2010.01.19	09.47.00	null
100	2010.01.20	08.15.00	null
-	2010.01.20	12.51.00	null
-	2010.01.25	19.50.00	null
70	2010.09.04	01.10.00	null
20	2010.09.12	09.30.00	Main
-	2010.10.01	08.00.00	Main
-	2011.02.09	08.45.00	Main
270	2011.02.09	09.05.00	Main
70	2011.03.18	12.40.00	Other (specify below)
-	2011.03.20	01.28.00	Main
-	2011.03.24	10.00.00	Main
-	2011.03.24	12.45.00	Main
-	2011.05.21	19.50.00	Main
1,125	2011.05.29	16.30.00	Main
-	2011.07.16	18.00.00	Main
36	2011.07.19	10.50.00	Main
450	2011.07.26	10.30.00	Main
9	2011.10.12	10.25.00	Main
400	2011.10.16	15.25.00	Main
190	2011.10.27	18.50.00	Main
106	2012.03.05	21.35.00	Main
2,520	2013.05.17	18.00.00	Main
-	2013.05.29	07.00.00	Main
450	2013.10.05	13.00.00	Other (specify below)

25	2013.12.30	12.20.00	Manhole
72	2014.01.08	15.22.00	Other (specify below)
180	2014.06.17	19.20.00	Gravity Mainline
110	2014.06.25	10.10.00	Gravity Mainline
-	2014.09.29	00.00.00	Air Relief Valve (ARV)/Blow-Off Valve (BOV)
-	2014.10.18	11.30.00	Gravity Mainline
-	2014.12.02	17.25.00	Gravity Mainline
-	2014.12.11	10.00.00	Pump Station-Mechanical
2,200	2014.12.24	14.50.00	Pump Station-Controls
60	2015.12.29	10.08.00	Gravity Mainline
60	2016.02.10	15.06.00	Gravity Mainline
2,600	2016.03.16	12.00.00	Gravity Mainline
114	2016.04.08	09.18.00	Gravity Mainline
35	2016.11.02	12.00.00	Gravity Mainline
275	2016.11.07	10.00.00	Gravity Mainline
-	2017.01.08	10.30.00	Gravity Mainline
-	2017.01.25	13.15.00	Gravity Mainline
240	2017.02.02	12.00.00	Gravity Mainline
210	2017.02.15	15.00.00	Upper Lateral (Public)
2,900	2017.02.18	11.10.00	Manhole
53	2017.03.06	14.45.00	Upper Lateral (Public)
9,500	2019.01.14	07.20.00	Gravity Mainline
-	2019.02.13	07.45.00	Manhole
-	2019.02.13	13.45.00	Manhole
-	2019.02.26	22.00.00	Manhole
-	2019.02.26	20.00.00	Manhole
-	2019.03.01	12.30.00	Manhole
-	2019.03.06	07.20.00	Manhole
140	2019.10.13	17.15.00	Pump Station-Controls
75	2019.10.18	11.45.00	Pump Station-Controls
500	2019.12.05	16.00.00	Manhole
5	2020.03.12	15.31.00	Manhole
-	2020.09.28	11.00.00	Gravity Mainline
4,500	2021.02.08	09.20.00	Manhole
4,900	2021.07.22	18.40.00	Manhole
149	2021.09.07	19.30.00	Lower Lateral (Public)
60	2021.12.12	09.30.00	Gravity Mainline
150	2022.07.21	14.30.00	Air Relief Valve (ARV)/Blow-Off Valve (BOV)
-	2022.11.12	12.00.00	Gravity Mainline
301	2022.12.20	10.17.00	Manhole
-	2023.01.08	17.00.00	Pump Station-Controls
-	2023.01.09	08.00.00	Manhole
-	2023.01.09	08.00.00	Manhole
30	2023.02.14	08.30.00	Gravity Mainline
-	2023.03.14	12.02.00	Manhole
4,000	2023.03.21	18.00.00	Force Main
160,000	2023.03.21	10.00.00	Gravity Mainline
-	2024.01.22	09.50.00	Force Main
-	2024.01.31	21.30.00	Manhole

1,000	2024.02.04	11.30.00	Manhole,Pump Station - Power
-	2024.02.04	15.08.00	Manhole
-	2024.02.18	17.32.00	Manhole
-	2024.02.24	15.32.00	Manhole
75	2024.09.27	09.00.00	Manhole
100	2024.09.29	09.41.00	Manhole
156	2025.03.18	08.38.00	Manhole
19,663	2025.04.29	08.30.00	Air Relief Valve (ARV)/ Blow-Off Valve (BOV)
-	2025.06.10	12.14.00	Pump Station - Mechanical
622	2025.06.19	08.20.00	Gravity Mainline,Manhole
410	2025.07.22	17.00.00	Lower Lateral
3,321	2025.10.04	14.00.00	Manhole
60	2025.11.22	10.20.00	Gravity Mainline
4,500	2025.12.24	04.15.00	Pump Station - Controls
1,930	2025.12.29	13.00.00	Gravity Mainline
3,677	2026.01.05	15.00.00	Upper Lateral
-	2026.01.05	15.15.00	Manhole
1,304,720	2026.01.11	07.30.00	Force Main
1,543,556		2,791,956	
1,514,324			
		77,036	