City of Lakeport, CA

Report

Water & Sewer Capacity Charge (Expansion Fee) Study







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Executive Summary

Introduction

The City of Lakeport (the "City") retained Willdan Financial Services (Willdan) to conduct a water and sewer capacity charge (expansion fee) study. The main objective of this study was to update the water and sewer expansion fees to reflect the cost of providing service to new or expanded development. Willdan has completed the study of the City's water and sewer expansion fees and summarized the results of the investigations, analyses, and conclusions in this Report.

The purpose of capacity charges is to maintain equity between existing customers and new customers connecting to the City's water and sewer utility systems. The objective of the capacity charge study was to calculate a cost-based capacity charge for new customers connecting to, or requesting additional capacity to, the City's water and sewer utility systems. By establishing cost-based capacity charges, the City attempts to have new customers pay their equitable share of the system.

It is recommended that these charges be adjusted annually by the California Construction Cost Index to reflect changes in construction costs (i.e., inflation), and to update the capacity charges at least every five years, or whenever comprehensive planning documents for the systems have been updated, or significant infrastructure projects have been completed.

Summary

The water and sewer expansion fees developed and presented in this report are based on the planning and engineering design criteria of the City's water and sewer systems, the value of the existing assets, and future capital improvements. The expansion fees will allow the City to continue the practice of establishing an equitable and cost-based expansion fee for new customers connecting to the City's water and sewer systems and existing customers expanding their service capacity.

This report documents the assumptions, methodologies, and calculations upon which the expansion fees are based. As documented in this report, the expansion fees are just and reasonable and represent new development's proportionate share of system costs from which it will directly benefit.



Use of Expansion Fee Revenues

Revenue from the expansion fees for water and sewer facilities can be used to reimburse the City for prior infrastructure investments and to fund planned future capital projects.

The study is based on the best available information at the time of the report, however, the City cannot predict with certainty how and when development within the City will occur during the planning horizon assumed in this study, the City may need to update and revise the project lists funded by the expansion fees documented in this study. Any substitute projects should be funded within the same system, and the substitute projects must still benefit and have a relationship to new development. The City could identify any changes to the projects funded by the expansion fees when it updates the capital improvement plan (CIP). The expansion fees could also be updated if significant changes to the projects funded by the fees are anticipated.

Expansion Fee Summary

The proposed water expansion fees are based on the **buy-in** approach since existing infrastructure has sufficient capacity to serve future development. The proposed sewer expansion fees are based on the **hybrid** approach since new development will benefit from existing infrastructure as well as additional capital projects. The approaches used to determine the expansion fees are discussed in detail in **Section 1.2** of the report.

The proposed expansion fees are provided in Tables 1 and 2, respectively.



Description	Ex	pansion Fee	
Meter Size			
3/4 Inch	\$	3,582.40	
1.0 Inch	\$	5,970.67	
1.5 Inch	\$	11,941.35	
2.0 Inch	\$	19,106.16	
3.0 Inch	\$	35,824.04	
4.0 Inch	\$	59,706.74	
6.0 Inch	\$	119,413.48	
8.0 Inch	\$	191,061.57	
10.0 Inch	\$	274,651.00	
Notes:			
[1] The maximum supportable expansion fee per RUE is			
\$3,582.40.			

Table 1 – Proposed Water Expansion Fees

Table 2 – Proposed Sewer Expansion Fees

Description	Exp	oansion Fee
Meter Size		
Per RUE ⁽¹⁾	\$	7,941.44
<u>Notes</u> :		
[1] The maximum supportable expansion fee per RUE is \$7,941.44. One RUE is equi∨alent to 333 gallons per day.		



Section 1 – Introduction

1.1 Defining A Capacity Charge

Capacity charges (expansion fees) are one-time charges that reflect the demands and costs created by new development for additional water and sewer capacity. More specifically a capacity charge is defined as:

The water and sewer expansion fees calculated in this report are also known as capacity charges and are subject to the requirements of Government Code Section 66013, which defines a capacity charge as "a charge for public facilities in existence at the time a charge is imposed or charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged, including supply or capacity contracts for rights or entitlements, real property interests, and entitlements and other rights of the local agency involving capital expense relating to its use of existing or new public facilities. A "capacity charge" does not include a commodity charge."

The infrastructure included in capacity charges are large, system level components and do not include on-site or site-specific improvements. Capacity charges are required to demonstrate a reasonable connection or rational nexus between the amount of the fee and the cost to serve new development (i.e., new development's proportionate share of infrastructure capacity costs).

The objective of a capacity charge is not to simply generate revenues for a utility, but to create fiscal balance between existing customers and new customers. That is, all customers seeking to connect to a utility system should bear an equitable share of the cost of the capacity of the system. Through the implementation of cost-based capacity charges, existing customers will not be disproportionately burdened with the cost of new development. The additional capacity required for new growth can be the repayment of "buying into" existing capacity or the completion of utility projects to provide additional capacity.

1.2 Calculation Methodologies

There are three basic methodologies that are used to calculate the various components of capacity charges. The methodologies are used to determine the best measure of demand created by new development for each component of the capacity charges. The methodologies can be classified as looking at the past, present, and future capacities of infrastructure. The three basic methodologies are described below:

The **buy-in** methodology is used where infrastructure has been built in advance of new development and excess capacity is available for new development. Under this



methodology, new development repays the community for previous capacity investments via the expansion fee. The funds are then available for future expansion of the system.

The **incremental** methodology uses capital improvement plans (CIPs) and related master plans to determine new developments share of planned projects. Projects that do not add capacity, such as routine maintenance or replacement of existing facilities, are not included in the fees. Projects that add capacity are further evaluated as to the percentage of the project attributable to existing development versus new development. Only the incremental projects attributable to new development are included in the expansion fees.

The third approach is a **hybrid** methodology. The hybrid approach is used in situations where there is available capacity in the existing system, but there are also future improvements that require additional upgrades or expansion.

Figure 1 below summarizes the different capacity charge calculation processes.



Figure 1 – Capacity Charge Calculation Process



Within each of these generally accepted capacity charge setting methodologies, there are several different steps undertaken. These steps are as follows:

- Determination of system planning criteria this step determines the amount of capacity required for a single residential unit equivalent (RUE).
- Determination of total system RUEs that can be served This step determines the total RUEs that can be served by the system by dividing the total system capacity by a single RUE.
- Determination of total system costs Using fixed asset data and planned capital projects, the total utility system costs can be determined.
- Determination of any credits (if applicable) If any credits can be applied, such as debt service principal credits, the debt service principal is subtracted from the total fixed assets. This process is done since debt service is paid through user rates and if it is not removed from the capacity charges, double counting can occur.

As stated previously in the executive summary, The proposed water expansion fees are based on the **buy-in** approach since existing infrastructure has capacity to serve future development, and the proposed sewer expansion fees are based on the **hybrid** approach since new development will benefit from existing infrastructure as well as additional capital projects.



Section 2 – Water Expansion Fees

2.1 Water System Valuation

The City provided an asset listing that represents what it would cost to replace the water system's assets in today's dollars. It is important to recognize, however, that these assets are not new and are not being purchased today, but rather have been depreciated over time. Therefore, the accumulated depreciation is subtracted from the current day value of the assets to determine what is referred to as the Replacement Cost New Less Depreciation (RCNLD) fixed asset value. To determine the RCNLD, the difference between the total asset life and remaining asset life was determined for each respective asset. Once the remaining useful life of each system asset was determined, the difference was applied to the replacement cost in today's dollars to come up with the total depreciation for each asset. The depreciation for each asset was then subtracted from the replacement cost to determine the RCNLD.

The RCNLD fixed asset value for the City's water assets was calculated at \$18,062,134. In addition to the fixed assets, the City has \$677,262 in cash balance that future growth is being asked to "buy into" since the cash, or cash-on-hand represents accumulated reserves paid from user rate revenues, which will be used for future growth-related capital costs. A summary of the fixed assets by asset classification is shown in **Table 3**. A full list of the City's fixed assets can be found in **Appendix A**. A summary of all components of the water system valuation is provided in **Table 4**.

Description	RCNLD
Asset Category	
Water Treatment Plant	\$ 3,347,000.00
Storage Tank	\$ 2,271,666.67
Wells	\$ 691,666.67
Distribution	\$ 6,007,200.00
Construction In Progress	\$ 5,744,600.19
Total	\$18,062,133.53

Table 3 – Replacement Cost New Less Depreciation of Water Fixed Assets



Table 4	– Total	Water	System	Value
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Description		Value
Asset Category		
Cash ⁽¹⁾	\$	677,262.00
Total Well Assets	\$	12,443,466.86
Total Treatment Assets	\$	5,618,666.67
Total System Valuation		18,739,395.53
Notes:		
[1] "Cash" represents cash-on-hand from the City's accumulated reserves from user rate revenues that growth is being asked to "buy into".		

2.2 Expansion Fee per Residential Unit Equivalent

Each utility system is designed to serve a maximum capacity on a Gallons Per Day (gpd) basis. To determine the total number of Residential Unit Equivalencies (RUEs) that can be served by the system, the average gpd per RUE must be known. Since average usage is not linear though, peak demand must be accounted for since a utility system is designed based on the maximum gpd capacity that it can serve. Once the peak demand of the system is applied (1.266-million-gallon max day / 0.924-million-gallon average day = 1.37 max day to average day factor) to the average gpd usage per RUE, the total number of RUEs that the system can serve can be determined. **Table 5** provides the calculations to determine the total RUEs, and **Table 6** provides a summary of the calculated fee per RUE.

Description	Flow per RUE	Total System
Well RUEs		
Peak Day Demand Capacity		2,050,000
A∨erage Water Flows (gpd)	271	
Peak Demand (Max Day to A∨g Day)	1.37	
Water Flows per RUE	371	
Total Well RUEs		5,521
Treatment RUEs		
Peak Day Demand Capacity		1,730,000
A∨erage Water Flows (gpd)	271	
Peak Demand (Max Day to Avg Day)	1.37	
Water Flows per RUE	371	
Total Treatment RUEs		4,659

Table 5 –	Total	Water	System	RUEs
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Table 6 – Total Cost per RUE

Description		Value		
Asset Category				
Cash ⁽¹⁾	\$	677,262.00		
Total Well Assets	\$	12,443,466.86		
Total Treatment Assets	\$	5,618,666.67		
Total System Valuation	\$	18,739,395.53		
Total RUEs by Asset Type				
Number of Well RUEs		5,521		
Number of Treatment RUE's		4,659		
Well Fee per RUE	\$	2,376.49		
Treatment Fee per RUE	\$	1,205.92		
Cost per RUE	\$	3,582.40		
Notes:				
[1] "Cash" represents cash-on-hand from the City's				
accumulated reserves from user rate revenues that growth				
is being asked to "buy into".				

2.3 Expansion Fee by Meter Size

The previous section of the report identifies the expansion fee per RUE, which is equivalent to a single 3/4-inch water meter. To determine the cost per RUE for larger meter sizes, the American Water Works Association (AWWA) meter equivalency factors are applied. The methodology for incrementing the expansion fee per RUE is based upon standardized meter/capacity criteria established by the AWWA relative to the size of the water meter. The applicable RUE factors for larger water meters are based upon the incremental increase in potential capacity of those meters as compared to the standard meter size. These factors are derived from actual flow testing results as performed and defined by the AWWA, and commonly utilized by the water and sewer utility industry. A summary of the AWWA meter-size equivalency factors is provided in **Table 7**. A comparison of the existing vs proposed water expansion fees is provided in **Table 8**.



Description	AWWA Factors ⁽¹⁾			
Meter Size				
3/4 Inch	1.00			
1.0 Inch	1.67			
1.5 Inch	3.33			
2.0 Inch	5.33			
3.0 Inch	10.00			
4.0 Inch	16.67			
6.0 Inch	33.33			
8.0 Inch	53.33			
10.0 Inch	76.67			
Notes:				
[1] Meter-size equivalency factors established by the AWWA				
and identified in AWWA Standards C700, M1 and M22. Such				

Table 7 – AWWA Meter Equivalency Factors

[1] Meter-size equivalency factors established by the AWWA and identified in AWWA Standards C700, M1 and M22. Such factors are commonly applied consistently for both water and sewer.

Description	E>	pansion Fee	
Meter Size			
3/4 Inch	\$	3,582.40	
1.0 Inch	\$	5,970.67	
1.5 Inch	\$	11,941.35	
2.0 Inch	\$	19,106.16	
3.0 Inch	\$	35,824.04	
4.0 Inch	\$	59,706.74	
6.0 Inch	\$	119,413.48	
8.0 Inch	\$	191,061.57	
10.0 Inch	\$	274,651.00	
Notes:			
[1] The maximum supportable expansion fee per RUE is			
\$3,582.40.			

Table 8 – Proposed Water Expansion Fees by Meter Size



Section 3 – Sewer Expansion Fees

3.1 Sewer System Valuation

The City provided an asset listing that represents what it would cost to replace the sewer system's assets in today's dollars. It is important to recognize, however, that these assets are not new and are not being purchased today, but rather have been depreciated over time. Therefore, the accumulated depreciation is subtracted from the current day value of the assets to determine what is referred to as the Replacement Cost New Less Depreciation (RCNLD) fixed asset value. To determine the RCNLD, the difference between the total asset life and remaining asset life was determined for each respective asset. Once the remaining useful life of each system asset was determined, the difference was applied to the replacement cost in today's dollars to come up with the total depreciation for each asset. The depreciation for each asset was then subtracted from the replacement cost to determine the RCNLD.

The RCNLD fixed asset value for the City's sewer assets was calculated at \$21,575,133. In addition to the fixed assets, the City has \$3,508,556 in cash balance that future growth is being asked to "buy into" since the cash, or cash-on-hand represents accumulated reserves paid from user rate revenues, which will be used for future growth-related capital costs. A summary of the fixed assets by asset classification is shown in **Table 9**. A full list of the City's fixed assets can be found in **Appendix B**. A summary of all components of the sewer system valuation is provided in **Table 10**.

Description	RCNLD
Asset Category	
Liftstation	\$ 1,395,300.00
WWTP	\$ 14,285,833.33
Collection	\$ 5,894,000.00
Total	\$ 21,575,133.33

Table 9 – Replacement Cost New Less Depreciation of Sewer Fixed Assets



Table	10 –	Total	Sewer	System	Value
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Description	Value			
Asset Category				
Cash ⁽¹⁾	\$ 3,508,566.00			
Liftstation	\$ 1,395,300.00			
WWTP	\$ 14,285,833.33			
Collection	\$ 5,894,000.00			
Total System Valuation	\$25,083,699.33			
Notes:				
[1] "Cash" represents cash-on-hand from	n the City's			
accumulated reserves from user rate revenues that growth is				
being asked to "buy into".				

Each utility system is designed to serve a maximum capacity on a Gallons Per Day (gpd) basis. To determine the total number of Residential Unit Equivalencies (RUEs) that can be served by the system, the average gpd per RUE must be known. Since average usage is not linear though, peak demand must be accounted for since a utility system is designed based on the maximum gpd capacity that it can serve. Once the peak demand of the system is applied (0.792-million-gallon max day / 0.452-million-gallon average day = 1.75 max day to average day factor) to the average gpd usage per RUE, the total number of RUEs that the system can serve can be determined. **Table 11** provides the calculations to determine the total RUEs, and **Table 12** provides a summary of the total cost per RUE.

Description	Flow per RUE	Total System
RUEs		
Peak Day Demand Capacity ⁽¹⁾		1,390,000
Average Sewer Flows (gpd)	190	
Peak Demand (Max Day to A∨g Day)	1.75	
Sewer Flows per RUE	333	
Total RUEs		4,178
Notes:		
[1] Represents the max treatment capacit	y of the sewer s	system.

Table	11	– Total	Sewer	System	RUEs
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Table 12 – Total	Cost per RUE
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Description		Value
Asset Category		
Cash ⁽¹⁾	\$	3,508,566.00
Liftstation	\$	1,395,300.00
WWTP	\$	14,285,833.33
Collection	\$	5,894,000.00
Total System Valuation \$25,083,		25,083,699.33
Total RUEs		4,178
Cost per RUE	\$	6,003.11
Notes:		
[1] "Cash" represents cash-on-hand from the City's a	accu	mulated reserves
from user rate revenues that growth is being asked to	o "bi	uy into".

3.2 Sewer System Projected Capital Needs

In considering the recovery of future asset costs, the general concept is to assign new development the incremental cost of future system expansion needed to serve the new development. When using this method, a capital improvement program ("CIP") that identifies the costs associated with new capacity and the timing of the expenditures must be provided. It is also important to consider the planned funding sources for the projects identified in the CIP. For example, projects that are funded from grants or developer contributions are excluded from the expansion fee calculation since these are costs that are not incurred by the utility or funded from utility revenues.

Like the rationale for excluding certain existing assets from recovery through expansion fees, the CIP projected costs included for capital recovery in the analysis consist of only those projects associated with system-wide upgrades or expansions. As such, projects related to general maintenance (i.e., renewal and replacement of existing facilities) or localized facilities that benefit only certain customers are excluded from recovery through the expansion fee. While this is the case, City staff directed that a portion of certain replacement of infrastructure results in an increased size or capacity of the system whenever feasible to allow for future growth and development. All allocations of growth-related capital projects were provided by the City. The CIP and resulting identification of assumed growth-related projects (i.e., project costs recoverable from expansion fees) are provided in **Appendix B**. The City's CIP anticipates that \$2,025,550.97 in growth-related capital will provide additional sever



capacity or expansion. The projected growth-related capital costs included in the analysis are summarized in **Table 13**.

Project Name T		al Project Cost	Allocation to New		Cost Allocated to New Development	
Lakeport Bl∨d Sewer Main (Larrecou - Main)	\$	1,016,239.12	5.00%	\$	50,811.96	
Replace/Upsize Main - Martin (Be∨ins to LS) 1200'	\$	500,000.00	5.00%	\$	25,000.00	
WWTP Parallel Chlorine Contactor 600'	\$	587,905.97	20.00%	\$	117,581.19	
SCADA Upgrades - Software/Hardware	\$	54,217.43	0.00%	\$	-	
Manhole Rehab	\$	266,005.76	0.00%	\$	-	
Main Slip Line Install 1,000' per year (10,000 Lineal Ft)	\$	1,064,023.01	0.00%	\$	-	
Lateral Replacements	\$	266,005.76	50.00%	\$	133,002.88	
Replace Lakeshore to Rose Force Main (2,100')	\$	816,528.25	50.00%	\$	408,264.13	
Point Repairs	\$	106,402.31	0.00%	\$	-	
Crew Room Upgrade - Corporation Yard	\$	256,198.09	0.00%	\$	-	
Dump Truck Replacement (3-Way)	\$	50,000.00	0.00%	\$	-	
Sludge Remo∨al	\$	918,297.91	0.00%	\$	-	
Flat Bed (3-Way)	\$	50,000.00	0.00%	\$	-	
Plant Upgrade	\$	1,175,811.94	20.00%	\$	235,162.39	
Master Plan	\$	108,434.86	20.00%	\$	21,686.97	
Lift Station Pumps	\$	170,207.23	20.00%	\$	34,041.45	
Plant Expansion/Disposal	\$	1,000,000.00	100.00%	\$	1,000,000.00	
Total	\$	8,406,277.64		\$	2,025,550.97	
Notes:			evided by the City			

[1] The percent of capital projects allocated to new development was provided by the City.

The growth-related related capital projects are expected to add additional capacity to serve additional RUEs. The "Additional RUEs" in **Table 14** were determined by dividing the expected additional capacity (347,500 gpd) by the "Sewer Flows per RUE" from **Table 11**. The cost per RUE is provided in **Table 14**.

Description	Cost		
Growth-Related Projects	\$	2,025,550.97	
Additional RUE's		1,045	
Total Cost per RUE	\$	1,938.33	



3.3 Expansion Fee per RUE

The analysis developed herein for calculation of the sewer expansion fees proposes the **hybrid** method. As the name implies, the combined method includes the cost/value of both the existing facilities currently providing service, as well as the planned facilities required to perpetuate or expand service. This method assumes that the utility has capacity within the existing system sufficient to serve near-term growth but will require additional capacity to meet future growth needs. Using this method, new customers pay an expansion fee that reflects the value of both existing and planned capacity. The combined sewer system costs per RUE is summarized in **Table 15**.

Description		Total		
Buy-In Component per RUE	\$	6,003.11		
Incremental Component per RUE		1,938.33		
Total Cost per RUE	\$	7,941.44		

Table 15 – Total Sewer System Costs per RUE



Section 4 – Implementation

4.1 Impact Fee Program Adoption Process

Capacity charge program adoption procedures are found in the California Government Code section 66016. Adoption of an impact fee program requires the City Council to follow certain procedures including holding a public hearing. Data, such as a capacity charge report, must be made available at least 10 days prior to the public hearing. The City's legal counsel should be consulted for any other procedural requirements as well as advice regarding adoption of an enabling ordinance and/or a resolution. After adoption there is a mandatory 60-day waiting period before the fees go into effect.

4.2 Inflation Adjustment

The City can keep its capacity charge program up to date by periodically adjusting the charges for inflation. Such adjustments should be completed regularly to ensure that new development will fully fund its share of needed facilities. We recommend that the California Construction Cost Index (https://www.dgs.ca.gov/RESD/Resources/Page-Content/Real-Estate-Services-Division-Resources-List-Folder/DGS-California-Construction-Cost-Index-CCCI) be used for adjusting fees for inflation. The California Construction Cost Index is based on data from the Engineering News Record and is aggregated and made available for free by the State of California.

The capacity charge amounts can be adjusted based on the change in the index compared to the index in the base year of this study (2023).

While capacity charge updates using inflation indices are appropriate for periodic updates to ensure that capacity charge revenues keep up with increases in the costs of facilities and capital, the City will also need to conduct more extensive updates of the capacity charge documentation and calculation (such as this study) when significant new data on growth forecasts and/or capital plans become available. Note that decreases in index value will result in decreases to fee amounts.

While capacity charge updates using inflationary indices are appropriate for periodic updates to ensure that capacity charge revenues keep up with increases in the costs of capital, the City will also need to conduct more extensive updates of the capacity charge documentation and calculation (such as this study) when significant new data on growth forecasts and/or capital plans become available.



4.3 Reporting Requirements

The City will comply with the annual and five-year reporting requirements of the Mitigation Fee Act. For capital to be funded by a combination of public fees and other revenues, identification of the source and amount of these non-fee revenues is essential. Identification of the timing of receipt of other revenues to fund the facilities is also important. **Table 16** summarizes the annual and five-year reporting requirements identified in the Mitigation Fee Act.

CA Gov't Code Section	Timing	Reporting Requirements ¹	Recommended Fee Adjustment
66001.(d)	The fifth fiscal year following the first deposit into the account or fund, and every five years thereafter	 (A) Identify the purpose to which the fee is to be put. (B) Demonstrate a reasonable relationship between the fee and thepurpose for which it is charged. (C) Identify all sources and amounts of funding anticipated tocomplete financing in incomplete improvements. (D) Designate the approximate dates on which supplemental funding is expected to be deposited into the appropriate account or fund. 	Comprehensive Update
66013. (d)	Within 180 days after the last day of each fiscal year	 (A) A description of the charges deposited in the fund. (B) The beginning and ending balance of the fund and the interest earned from investment of moneys in the fund. (C) The amount of the charges collected in that fiscal year. (D) An identification of each improvement on which the charges were expended and the amount of the expenditure, including the percentage the improvement was funded if more than one funding source was used. (E) An identification of each public improvement on which charges were expended that was completed during that fiscal year. (F) An identification of each public improvement that is anticiapted to be undertaken in the following fiscal year. (G) A description of each interfund transfer or laon made from the capital facilities fund. 	Inflationary Adjustment

Table 16 – Mitigation Fee Act – Annual and Five-year Administrative Requirements



Section 5 – Recommendations & Conclusions

5.1 Recommendations

Based on the review and analysis herein, Willdan recommends:

- The city should adopt the water and sewer expansion fees for new connections to each respective system. The adopted expansion fees for the water and sewer systems should not exceed the expansion fees set forth in this report.
- The adopted water and sewer expansion fees should be updated annually by the California Construction Cost Index, for no more than five years before a complete update of the expansion fee is undertaken. This ensures that expansion fee revenues keep up with increases in the costs of facilities and capital.
- The City should update the actual calculations of the expansion fees whenever a (1) new capital improvement plan is approved or updated by the City, or (2) every five years, or (3) when a major infrastructure project is complete.

5.2 Conclusion

The expansion fees developed and presented herein are based on the planning and engineering design criteria of the City's water and sewer systems, the value of the existing assets, and planned capital projects. Consistently updating the expansion fees annually based on the California Construction Cost Index and reviewing the expansion fees every five years will continue to create equitable and cost-based charges for new customers connecting to the City's water and sewer systems.

APPENDIX

DETAIL FOR THE WATER & SEWER CAPACITY CHARGE (EXPANSION FEE) STUDY



WATER & SEWER CAPACITY CHARGE (EXPANSION FEE) STUDY FOR THE CITY OF LAKEPORT, CALIFORNIA

Prepared by Willdan Financial Services 🔨



APPENDIX A Water Capacity Charge (Water Expansion Fee)

Department	Master Asset	Asset	Replacement Cost	Existing Life (yrs)	Remaining Life (yrs)	% of Useful Life Remaining	Total Depreciation	RCNLD
Water	Water Treatment Plant	Intake Booster Pump 1	\$ 40,000.00	40	20	50.00%	\$ 20,000.00	\$ 20,000.00
Water	Water Treatment Plant	Intake Booster Pump 2	\$ 40,000.00	40	20	50.00%	\$ 20,000.00	\$ 20,000.00
Water	Water Treatment Plant	Generator (Intake)	\$ 80,000.00	30	30	100.00%	\$-	\$ 80,000.00
Water	Water Treatment Plant	MCC/Telemetry (Intake)	\$ 200,000.00	20	15	75.00%	\$ 50,000.00	\$ 150,000.00
Water	Water Treatment Plant	Package Unit 1	\$ 1,500,000.00	50	20	40.00%	\$ 900,000.00	\$ 600,000.00
Water	Water Treatment Plant	Package Unit 2	\$ 1,500,000.00	50	20	40.00%	\$ 900,000.00	\$ 600,000.00
Water	Water Treatment Plant	Raw Water Pump 1	\$ 40,000.00	40	20	50.00%	\$ 20,000.00	\$ 20,000.00
Water	Water Treatment Plant	Raw Water Pump 2	\$ 40,000.00	40	20	50.00%	\$ 20,000.00	\$ 20,000.00
Water	Water Treatment Plant	Intermediate Pump 1	\$ 40,000.00	40	20	50.00%	\$ 20,000.00	\$ 20,000.00
Water	Water Treatment Plant	Intermediate Pump 2	\$ 40,000.00	40	20	50.00%	\$ 20,000.00	\$ 20,000.00
Water	Water Treatment Plant	Distribution Pump 1	\$ 50,000.00	40	20	50.00%	\$ 25,000.00	\$ 25,000.00
Water	Water Treatment Plant	Distribution Pump 2	\$ 50,000.00	40	20	50.00%	\$ 25,000.00	\$ 25,000.00
Water	Water Treatment Plant	MCC/Telemetry	\$ 500,000.00	20	15	75.00%	\$ 125,000.00	\$ 375,000.00
Water	Water Treatment Plant	GAC Vessel 1	\$ 45,000.00	8	4	50.00%	\$ 22,500.00	\$ 22,500.00
Water	Water Treatment Plant	GAC Vessel 2	\$ 45,000.00	8	4	50.00%	\$ 22,500.00	\$ 22,500.00
Water	Water Treatment Plant	GAC Vessel 3	\$ 45,000.00	8	0	0.00%	\$ 45,000.00	\$-
Water	Water Treatment Plant	GAC Vessel 4	\$ 45,000.00	8	0	0.00%	\$ 45,000.00	\$-
Water	Water Treatment Plant	Clearwell	\$ 200,000.00	30	0	0.00%	\$ 200,000.00	\$-
Water	Water Treatment Plant	Backwash Pump 1	\$ 50,000.00	40	20	50.00%	\$ 25,000.00	\$ 25,000.00
Water	Water Treatment Plant	Backwash Pump 2	\$ 50,000.00	40	20	50.00%	\$ 25,000.00	\$ 25,000.00
Water	Water Treatment Plant	Ozone Generator 1	\$ 100,000.00	30	30	100.00%	\$-	\$ 100,000.00
Water	Water Treatment Plant	Ozone Generator 2	\$ 100,000.00	30	0	0.00%	\$ 100,000.00	\$-
Water	Water Treatment Plant	O3 SEP Unit 1	\$ 50,000.00	30	10	33.33%	\$ 33,333.33	\$ 16,666.67
Water	Water Treatment Plant	O3 Sep Unit 2	\$ 50,000.00	30	10	33.33%	\$ 33,333.33	\$ 16,666.67
Water	Water Treatment Plant	Air Compressor 1	\$ 15,000.00	20	18	90.00%	\$ 1,500.00	\$ 13,500.00
Water	Water Treatment Plant	Air Compressor 2	\$ 15,000.00	20	18	90.00%	\$ 1,500.00	\$ 13,500.00
Water	Water Treatment Plant	Chemical Applications	\$ 250,000.00	30	25	83.33%	\$ 41,666.67	\$ 208,333.33
Water	Water Treatment Plant	Monitoring Equipment WQ	\$ 150,000.00	20	10	50.00%	\$ 75,000.00	\$ 75,000.00
Water	Water Treatment Plant	Structures	\$ 1,000,000.00	60	40	66.67%	\$ 333,333.33	\$ 666,666.67
Water	Water Treatment Plant	SCADA/Monitoring Equipment	\$ 500,000.00	30	10	33.33%	\$ 333,333.33	\$ 166,666.67
Water	Water Treatment Plant							
Water	Water Treatment Plant	Total	\$ 6,830,000.00				\$ 3,483,000.00	\$ 3,347,000.00
Water	Storage Tank Site	Tank 1	\$ 1,000,000.00	40	32	80.00%	\$ 200,000.00	\$ 800,000.00
Water	Storage Tank Site	Tank 2	\$ 1,500,000.00	40	32	80.00%	\$ 300,000.00	\$ 1,200,000.00
Water	Storage Tank Site	Chemical Application	\$ 200,000.00	30	15	50.00%	\$ 100,000.00	\$ 100,000.00
Water	Storage Tank Site	Structures	\$ 100,000.00	60	25	41.67%	\$ 58,333.33	\$ 41,666.67
Water	Storage Tank Site	SCADA/Monitoring Equipment	\$ 100,000.00	20	10	50.00%	\$ 50,000.00	\$ 50,000.00
Water	Storage Tank Site	WQ Monitoring Equipment	\$ 100,000.00	20	10	50.00%	\$ 50,000.00	\$ 50,000.00
Water	Storage Tank Site	Generator	\$ 45,000.00	30	20	66.67%	\$ 15,000.00	\$ 30,000.00
Water	Storage Tank Site							
Water	Storage Tank Site	Total	\$ 3,045,000.00				\$ 773,333.33	\$ 2,271,666.67
Water	Green Ranch Wells	East Well	\$ 1,000,000.00	40	10	25.00%	\$ 750,000.00	\$ 250,000.00
Water	Green Ranch Wells	West Well	\$ 1,000,000.00	40	10	25.00%	\$ 750,000.00	\$ 250,000.00
Water	Green Ranch Wells	Structure	\$ 150,000.00	60	45	75.00%	\$ 37,500.00	\$ 112,500.00
Water	Green Ranch Wells	MCC/Telemetry	\$ 100,000.00	30	15	50.00%	\$ 50,000.00	\$ 50,000.00
Water	Green Ranch Wells							
Water	Green Ranch Wells	Total	\$ 2,250,000.00				\$ 1,587,500.00	\$ 662,500.00

Water	Scotts Creek Wells	4" Well	\$	1,000,000.00	40	0
Water	Scotts Creek Wells	8" Well	\$	1,000,000.00	40	0
Water	Scotts Creek Wells	Structure	\$	150,000.00	60	5
Water	Scotts Creek Wells	MCC/Telemetry	\$	100,000.00	30	5
Water	Scotts Creek Wells					
Water	Scotts Creek Wells	Tota	\$	2,250,000.00		
Water	Distribution	Transmission Piping	\$	15,018,000.00	100	40
Water		Tota	\$	29,393,000.00		
Water	Water Treatment Plant		Ś	6 830 000 00		

	Check		TRUE
	Total	\$	29,393,000.00
Water	Distribution	\$	15,018,000.00
Water	Wells	\$	2,250,000.00
Water	Wells	\$	2,250,000.00
Water	Storage Tank	\$	3,045,000.00
Water	Water Treatment Plant	Ş	6,830,000.00

0.00%	\$ 1,000,000.00	\$ -
0.00%	\$ 1,000,000.00	\$ -
8.33%	\$ 137,500.00	\$ 12,500.00
16.67%	\$ 83,333.33	\$ 16,666.67
	\$ 2,220,833.33	\$ 29,166.67
40.00%	\$ 9,010,800.00	\$ 6,007,200.00
	\$ 17,075,466.67	\$ 12,317,533.33
	\$ 3,483,000.00	\$ 3,347,000.00
	\$ 773,333.33	\$ 2,271,666.67
	\$ 1,587,500.00	\$ 662,500.00
	\$ 2,220,833.33	\$ 29,166.67
	\$ 9,010,800.00	\$ 6,007,200.00
	\$ 17,075,466.67	\$ 12,317,533.33
	TRUE	TRUE

Lakeport, CA Water Expansion Fee Model Capital Improvement Plan

Description - Inflated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Replace Scotts Creek Wells	\$0.00	\$0.00	\$0.00	\$0.00	\$176,371.79	\$918,297.91	\$0.00	\$0.00	\$0.00	\$0.00	\$1,094,670
Ozone Generators - SWTP	\$0.00	\$0.00	\$0.00	\$0.00	\$129,339.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	129,339
Replace GAC - SWTP 2 Vessels	\$0.00	\$0.00	\$0.00	\$0.00	\$94,064.96	\$0.00	\$101,999.20	\$0.00	\$0.00	\$0.00	196,064
Replace HVAC - SWTP	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0
Replace Clearwell - SWTP	\$0.00	\$10,413.21	\$162,652.29	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	173,066
Filter Media	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$122,439.72	\$0.00	\$0.00	\$0.00	\$0.00	122,440
Green Ranch Rehab	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0
Replace Roof Tank Site	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0
SCADA Upgrades - Software/Hardware	\$0.00	\$52,066.03	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	52,066
Main Replacement 2nd St. (Russel to Main) 2,500'	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,530,496.51	\$0.00	\$0.00	\$0.00	\$0.00	1,530,497
Main Replacement Armstrong (Berry to Smith) 1,200'	\$380,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	380,000
Main Replacement Lakeshore (Jones to Ashe) 800'	\$0.00	\$104,132.06	\$352,413.30	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	456,545
Replace SWTP Roof	\$0.00	\$0.00	\$0.00	\$0.00	\$70,548.72	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	70,549
Main Replacement Lakeport Blvd (Larrecou to Main) 1,400'	\$0.00	\$0.00	\$238,556.70	\$733,950.47	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	972,507
Main Replacement Lupoyoma Circle Loop 550' (Internal)	\$45,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	45,000
Crew Room Upgrade - Corporation Yard	\$100,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	100,000
Meters	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$31,874.75	\$33,191.84	\$34,563.34	\$0.00	99,630
Water Truck Replacement (3-Way)	\$50,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	50,000
Dump Truck Replacement (3-Way)	\$0.00	\$52,066.03	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	52,066
Flat Bed (3-Way)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0
Generators	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0
PW Foreman Vehicle (3-Way)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0
Master Plan	\$0.00	\$0.00	\$108,434.86	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	108,435
Misc. Valve Installs - N. Main (Internal)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0
Misc. Valve Installs - Forbes Internal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0
Main Replacement - Harry St. (Central Park to 5th) Internal	\$0.00	\$36,446.22	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	36,446
Main Replacement - N. High (5th-Clear Lake Ave) 1,900'	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,261,289.76	\$0.00	\$0.00	1,261,290
Main Replacement - Fairway (Green to Hillcrest) 1,600'	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,019,992.05	\$0.00	\$0.00	\$0.00	1,019,992
14 Inch Water Line Loop Project	\$0.00	\$0.00	\$4,385,855.14	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	4,385,855
Total	\$575,000	\$255,124	\$5,247,912	\$733,950	\$470,325	\$2,571,234	\$1,153,866	\$1,294,482	\$34,563	\$0	\$12,336,456

	Capital Costs	System	
	Allocated to	Expansion	
	Existing	Costs	
	Customers	Allocated to	
	(System	New	Total
Description - Inflated	Upgrade)	Customers	Allocation
Replace Scotts Creek Wells	90%	10%	100%
Ozone Generators - SWTP	100%	0%	100%
Replace GAC - SWTP 2 Vessels	100%	0%	100%
Replace HVAC - SWTP	100%	0%	100%
Replace Clearwell - SWTP	90%	10%	100%
Filter Media	90%	10%	100%
Green Ranch Rehab	100%	0%	100%
Replace Roof Tank Site	100%	0%	100%
SCADA Upgrades - Software/Hardware	90%	10%	100%
Main Replacement 2nd St. (Russel to Main) 2,500'	80%	20%	100%
Main Replacement Armstrong (Berry to Smith) 1,200'	80%	20%	100%
Main Replacement Lakeshore (Jones to Ashe) 800'	80%	20%	100%
Replace SWTP Roof	90%	10%	100%
Main Replacement Lakeport Blvd (Larrecou to Main) 1,400'	80%	20%	100%
Main Replacement Lupoyoma Circle Loop 550' (Internal)	100%	0%	100%
Crew Room Upgrade - Corporation Yard	80%	20%	100%
Meters	80%	20%	100%
Water Truck Replacement (3-Way)	100%	0%	100%
Dump Truck Replacement (3-Way)	100%	0%	100%
Flat Bed (3-Way)	100%	0%	100%
Generators	80%	20%	100%
PW Foreman Vehicle (3-Way)	100%	0%	100%
Master Plan	60%	40%	100%
Misc. Valve Installs - N. Main (Internal)	100%	0%	100%
Misc. Valve Installs - Forbes Internal	100%	0%	100%
Main Replacement - Harry St. (Central Park to 5th) Internal	100%	0%	100%
Main Replacement - N. High (5th-Clear Lake Ave) 1,900'	80%	20%	100%
Main Replacement - Fairway (Green to Hillcrest) 1,600'	80%	20%	100%
14 Inch Water Line Loop Project	0%	100%	100%

	Capital Costs		
	Allocated to	System Expansion	
	Existing	Costs Allocated to	
Description - Inflated	Customers	New Customers	Total
Replace Scotts Creek Wells	\$985,202.73	\$109,466.97	\$1,094,669.70
Ozone Generators - SWTP	\$129,339.31	\$0.00	\$129,339.31
Replace GAC - SWTP 2 Vessels	\$196,064.16	\$0.00	\$196,064.16
Replace HVAC - SWTP	\$0.00	\$0.00	\$0.00
Replace Clearwell - SWTP	\$155,758.95	\$17,306.55	\$173,065.50
Filter Media	\$110,195.75	\$12,243.97	\$122,439.72
Green Ranch Rehab	\$0.00	\$0.00	\$0.00
Replace Roof Tank Site	\$0.00	\$0.00	\$0.00
SCADA Upgrades - Software/Hardware	\$46,859.43	\$5,206.60	\$52,066.03
Main Replacement 2nd St. (Russel to Main) 2,500'	\$1,224,397.21	\$306,099.30	\$1,530,496.51
Main Replacement Armstrong (Berry to Smith) 1,200'	\$304,000.00	\$76,000.00	\$380,000.00
Main Replacement Lakeshore (Jones to Ashe) 800'	\$365,236.29	\$91,309.07	\$456,545.36
Replace SWTP Roof	\$63,493.85	\$7,054.87	\$70,548.72
Main Replacement Lakeport Blvd (Larrecou to Main) 1,400'	\$778,005.74	\$194,501.43	\$972,507.17
Main Replacement Lupoyoma Circle Loop 550' (Internal)	\$45,000.00	\$0.00	\$45,000.00
Crew Room Upgrade - Corporation Yard	\$80,000.00	\$20,000.00	\$100,000.00
Meters	\$79,703.94	\$19,925.99	\$99,629.93
Water Truck Replacement (3-Way)	\$50,000.00	\$0.00	\$50,000.00
Dump Truck Replacement (3-Way)	\$52,066.03	\$0.00	\$52,066.03
Flat Bed (3-Way)	\$0.00	\$0.00	\$0.00
Generators	\$0.00	\$0.00	\$0.00
PW Foreman Vehicle (3-Way)	\$0.00	\$0.00	\$0.00
Master Plan	\$65,060.92	\$43,373.94	\$108,434.86
Misc. Valve Installs - N. Main (Internal)	\$0.00	\$0.00	\$0.00
Misc. Valve Installs - Forbes Internal	\$0.00	\$0.00	\$0.00
Main Replacement - Harry St. (Central Park to 5th) Internal	\$36,446.22	\$0.00	\$36,446.22
Main Replacement - N. High (5th-Clear Lake Ave) 1,900'	\$1,009,031.81	\$252,257.95	\$1,261,289.76
Main Replacement - Fairway (Green to Hillcrest) 1,600'	\$815,993.64	\$203,998.41	\$1,019,992.05
14 Inch Water Line Loop Project	\$0.00	\$4,385,855.14	\$4,385,855.14
Total	\$6,591,855.98	\$5,744,600.19	\$12,336,456.17

Lakeport, CA Water Expansion Fee Model Expansion Fee Calculation - Buy-In

				Replacement Cost New
		Original Cost Less	Replacement Cost	Less Depreciation
Description	Original Cost	Depreciation	New (RCN)	(RCNLD)
Buy-In - Assets			· · · · ·	· · · · · ·
Cash and Cash Equivalents	\$677,262	\$677,262	\$677,262	\$677,262.00
Fixed Assets				
Water Treatment Plant	0	0	6,830,000	\$3,347,000.00
Storage Tank	0	0	3,045,000	\$2,271,666.67
Wells	0	0	4,500,000	\$691,666.67
Distribution	0	0	15,018,000	\$6,007,200.00
Construction In Progress	0	0	5,744,600	\$5,744,600.19
Total Fixed Assets	0	0	35,137,600	18,062,134
Less: Principal (Non-Growth)	0	0	0	0
Total Well Assets	\$677.262	\$677.262	\$20,195,262	\$13 120 729
Total Treatment Assets	\$077,202	\$077,202	\$9 875 000	\$5,618,667
Total Assets	\$677.262	\$677.262	\$30,070,262	\$18 739 396
1041115005	\$677,262	\$677,202	\$30,070,202	\$10,759,590
Number of Well RUEs	5,521	5,521	5,521	5,521
Number of Treatment RUE's	4,659	4,659	4,659	4,659
Proposed Well Expansion Fee per RUE	\$122.67	\$122.67	\$3,657.86	\$2,376.49
Proposed Treatment Expansion Fee per RUE	\$0.00	\$0.00	\$2,119.44	\$1,205.92
Total Capacity Fee	\$122.67	\$122.67	\$5,777.30	\$3,582.40
Current Expansion Fee per RUE	\$8,347	\$8,347	\$8,347	\$8,347
Change	(\$8,224)	(\$8,224)	(\$2,570)	(\$4,765)
Well RUEs				
Peak Day Demand Capacity			2,050,000	
Average Water Flows (gpd)	271			
Average Use per RUE		271		
Peak Demand (Max Day to Avg Day)		1.37		
Water Flows per RUE		-	371	
Total RUEs			5,521	
Treatment RUEs				
Peak Day Demand Capacity			1,730,000	
Average Water Flows (gpd)	271			
Average Use per RUE		271		
Peak Demand (Max Day to Avg Day)		1.37	_	
Water Flows per RUE			371	
Total RUEs			4,659	

APPENDIX B Sewer Capacity Charge (Sewer Expansion Fee)

Department	Master Asset	Asset	Replacement Cost	Existing Life (yrs)	Remaining Life (yrs)	% of Useful Life Remaining	1	Total Depreciation	RCNLD
Wastewater	Martin St Liftstation	Pump 1	\$ 15,000.00	15	5	33.33%	\$	10,000.00 \$	5,000.00
Wastewater	Martin St Liftstation	Pump 2	\$ 15,000.00	15	5	33.33%	\$	10,000.00 \$	5,000.00
Wastewater	Martin St Liftstation	Structure	\$ 20,000.00	60	30	50.00%	\$	10,000.00 \$	10,000.00
Wastewater	Martin St Liftstation	MCC/Telemetry	\$ 250,000.00	30	10	33.33%	\$	166,666.67 \$	83,333.33
Wastewater	Martin St Liftstation								
wastewater	Iviartin St Liftstation	I OTAI	\$ 300,000.00				Ş	196,666.67 \$	103,333.33
			¢ 25,000,00						
Wastewater	Lakeport Blvd Liftstation	Pump 1	\$ 35,000.00	15	10	66.6/%	Ş	11,666.67 \$	23,333.33
wastewater	Lakeport Blvd Liftstation	Pump 2	\$ 33,000.00	15	10	0.000/	Ş	11,000.07 \$	23,333.33
Wastewater	Lakeport Blvd Liftstation	Structure	\$ - \$ 250,000,00	50	10	0.00%	Ş	100,000,07,0	
Wastewater	Lakeport Blvd Liftstation	MCC/Telemetry	\$ 250,000.00	30	10	55.55%	Ş	100,000.07 \$	5 83,333.33
Wastewater	Lakeport Blvd Liftstation	Total	\$ 320,000,00				Ś	190.000.00	130.000.00
in abite in a te			¢ 520,000.00				Ŷ	150,000,000	100,000.00
Wastewater	Lakeshore Liftstation	Pump 1	\$ 15.000.00	15	10	66.67%	Ś	5.000.00 S	10.000.00
Wastewater	Lakeshore Liftstation	Pump 2	\$ 15,000.00	15	10	66.67%	Ś	5.000.00 \$	10.000.00
Wastewater	Lakeshore Liftstation	Structure	\$ 100.000.00	60	40	66.67%	Ś	33,333,33	66.666.67
Wastewater	Lakeshore Liftstation	MCC/Telemetry	\$ 250,000,00	30	10	33.33%	Ś	166.666.67	83,333,33
Wastewater	Lakeshore Liftstation	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					*		,
wastewater	Lakeshore Liftstation	Total	\$ 380,000.00				\$	210,000.00 \$	170,000.00
Wastewater	Clear Lake Lift Station	Pump 1	\$ 8,000.00	15	12	80.00%	\$	1,600.00 \$	6,400.00
Wastewater	Clear Lake Lift Station	Pump 2	\$ 8,000.00	15	12	80.00%	\$	1,600.00 \$	6,400.00
Wastewater	Clear Lake Lift Station	Structure	\$ 10,000.00	60	55	91.67%	\$	833.33 \$	9,166.67
Wastewater	Clear Lake Lift Station	MCC/Telemetry	\$ 250,000.00	30	10	33.33%	\$	166,666.67 \$	83,333.33
Wastewater	Clear Lake Lift Station								
Wastewater	Clear Lake Lift Station	Total	\$ 276,000.00				\$	170,700.00 \$	105,300.00
Wastewater	Rose Lift Station	Pump 1	\$ 15,000,00	15	5	33 33%	Ś	10,000,00 \$	5 000 00
Wastewater	Rose Lift Station	Pump 2	\$ 15,000.00	15	5	33 33%	Ś	10,000.00 \$	5 000 00
Wastewater	Rose Lift Station	Structure	\$ -	50	0	0.00%	Ś	- 5	-
Wastewater	Bose Lift Station	MCC/Telemetry	\$ 250.000.00	30	10	33.33%	Ś	166.666.67	83.333.33
Wastewater	Rose Lift Station						•		,
Wastewater	Rose Lift Station	Total	\$ 280,000.00				\$	186,666.67 \$	93,333.33
			¢ 50.000.00			52 220/			20.000.07
Wastewater	C Street	Pump 1	\$ 50,000.00	15	8	53.33%	Ş	23,333.33 \$	26,666.67
Wastewater	C Street	Pump 2	\$ 50,000.00 \$ 50,000.00	15	8	53.55%	Ş	23,333.33 \$	
Wastewater	C Stroot	Fullip 5	s 50,000.00	15	8	58 22%	Ş ¢	۲۵,۵۵۵.۵۵ ک ۲۵,۵۵۵.۵۵ ک	
Wastewater	C Street	Generator	\$ 100,000.00	6U	35	30.3370	ې د	52,500.00 ¢ دد ددد د ۲ ش	0,500.00
Wastewater	C Street	MCC/Telemetry	\$ 250,000,00	30	10	33.33%	э ¢	166 666 67	, 33,333.33 93,333.33
Wastewater	C Street		φ 250,000.00	50	10	55.5570	ş	100,000.07 \$, 00,000.00
		Total	\$ 650,000.00				\$	365,833.33 \$	284,166.67
Wastewater	Larrecou Liftstation	Pump 1	\$ 50,000.00	15	5	33.33%	\$	33,333.33 \$	16,666.67
Wastewater	Larrecou Liftstation	Pump 2	\$ 50,000.00	15	5	33.33%	\$	33,333.33 \$	16,666.67
Wastewater	Larrecou Liftstation	Pump 3	\$ 50,000.00	15	5	33.33%	\$	33,333.33 \$	16,666.67
Wastewater	Larrecou Liftstation	Structure	\$ 100,000.00	60	35	58.33%	\$	41,666.67 \$	58,333.33
Wastewater	Larrecou Liftstation	Generator	\$ 100,000.00	30	10	33.33%	\$	66,666.67 \$	33,333.33
Wastewater	Larrecou Liftstation	MCC/Telemetry	\$ 250,000.00	30	10	33.33%	\$	166,666.67 \$	83,333.33
Wastewater	Larrecou Liftstation	Tatal	ć 600.000.00				ć	275 000 00 0	225 000 00
wastewater		lotai	ې 000,000 <u>د</u>				Ş	375,000.00 \$, 225,000.00

Wastewater	Linda Lane Lift Station	Pump 1	\$ 50,000.00	15	8
Wastewater	Linda Lane Lift Station	Pump 2	\$ 50,000.00	15	8
Wastewater	Linda Lane Lift Station	Pump 3	\$ 50,000.00	15	8
Wastewater	Linda Lane Lift Station	Structure	\$ 150,000.00	60	35
Wastewater	Linda Lane Lift Station	Generator	\$ 100,000.00	30	10
Wastewater	Linda Lane Lift Station	MCC/Telemetry	\$ 250,000.00	30	10
Wastewater	Linda Lane Lift Station				
Wastewater	Linda Lane Lift Station	Total	\$ 650,000.00		
Wastewater	WWTP	Pond 1	\$ 2,000,000.00	60	40
Wastewater	WWTP	Pond 2	\$ 2,000,000.00	60	40
Wastewater	WWTP	Effluent Pump 1	\$ 50,000.00	15	5
Wastewater	WWTP	Effluent Pump 2	\$ 50,000.00	15	5
Wastewater	WWTP	Effluent Pump 3	\$ 50,000.00	15	5
Wastewater	WWTP	Structures	\$ 500,000.00	60	40
Wastewater	WWTP	MCC/Telemetry	\$ 250,000.00	30	10
Wastewater	WWTP	Irrigation Pump 1	\$ 75,000.00	40	20
Wastewater	WWTP	Irrigation Pump 2	\$ 75,000.00	40	20
Wastewater	WWTP	Irrigation Pump 3	\$ 75,000.00	40	20
Wastewater	WWTP	Disposal Fields	\$ 200,000.00	50	25
Wastewater	WWTP	Reservoir	\$ 10,000,000.00	80	60
Wastewater	WWTP	Recap 1	\$ 100,000.00	50	30
Wastewater	WWTP	Recap 2	\$ 100,000.00	50	30
Wastewater	WWTP	Recap 3	\$ 100,000.00	50	30
Wastewater	WWTP	Recap 4	\$ 100,000.00	50	30
Wastewater	WWTP	Generator	\$ 100,000.00	30	10
Wastewater	WWTP	SCADA/Monitoring Equipment	\$ 500,000.00	30	10
Wastewater	WWTP	Pond Improvement/Upgrade	\$ 3,000,000.00	60	60
Wastewater	WWTP	Total	\$ 19,325,000.00		
Wastewater					
Wastewater	Collection System	Piping	\$ 11,788,000.00	60	30
Wastewater					
Wastewater		Total	\$ 34,569,000.00		

Wastewater	Liftstation	\$ 3,456,000.00
Wastewater	WWTP	\$ 19,325,000.00
Wastewater	Collection	\$ 11,788,000.00
	Total Check	\$ 34,569,000.00 TRUE

53.33%	\$	23,333.33	\$	26,666.67
53.33%	\$	23,333.33	\$	26,666.67
53.33%	\$	23,333.33	\$	26,666.67
58.33%	\$	62,500.00	\$	87,500.00
33.33%	\$	66,666.67	\$	33,333.33
33.33%	\$	166,666.67	\$	83,333.33
	\$	365,833.33	\$	284,166.67
66.67%	\$	666,666.67	\$	1,333,333.33
66.67%	\$	666,666.67	\$	1,333,333.33
33.33%	\$	33,333.33	\$	16,666.67
33.33%	\$	33,333.33	\$	16,666.67
33.33%	\$	33,333.33	\$	16,666.67
66.67%	\$	166,666.67	\$	333,333.33
33.33%	\$	166,666.67	\$	83,333.33
50.00%	\$	37,500.00	\$	37,500.00
50.00%	\$	37,500.00	\$	37,500.00
50.00%	\$	37,500.00	\$	37,500.00
50.00%	\$	100,000.00	\$	100,000.00
75.00%	\$	2,500,000.00	\$	7,500,000.00
60.00%	\$	40,000.00	\$	60,000.00
60.00%	\$	40,000.00	\$	60,000.00
60.00%	\$	40,000.00	\$	60,000.00
60.00%	\$	40,000.00	\$	60,000.00
33.33%	\$	66,666.67	\$	33,333.33
33.33%	\$	333,333.33	\$	166,666.67
100.00%	\$	-	\$	3,000,000.00
	\$	5,039,166.67	\$	14,285,833.33
50.00%	\$	5,894,000.00	\$	5,894,000.00
	\$	12,993,866.67	\$	21,575,133.33
	\$	2,060,700.00	\$	1,395,300.00
	\$	5,039,166.67	\$	14,285,833.33
	Ş	5,894,000.00	Ş	5,894,000.00
	Ş	12,993,866.67	Ş	21,575,133.33

TRUE

TRUE

B-2

Lakeport, CA Sewer Expansion Fee Model Capital Improvement Plan

Description - Inflated	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Lakeport Blvd Sewer Main (Larrecou - Main)	\$0	\$0	\$0	\$1,016,239	\$0	\$0	\$0	\$0	\$0	\$0	\$1,016,239
Replace/Upsize Main - Martin (Bevins to LS) 1200'	500,000	0	0	0	0	0	0	0	0	0	500,000
WWTP Parallel Chlorine Contactor 600'	0	0	0	0	587,906	0	0	0	0	0	587,906
WWTP Treatment Performance Study	0	0	0	0	0	0	0	0	0	0	0
Replace HVAC WWTP	0	0	0	0	0	0	0	0	0	0	0
SCADA Upgrades - Software/Hardware	0	0	54,217	0	0	0	0	0	0	0	54,217
Upgrade Telecommunications - WWTP	0	0	0	0	0	0	0	0	0	0	0
WWTP Replace Nylon Curtain in Ponds	0	0	0	0	0	0	0	0	0	0	0
Effluent Pumps	0	0	0	0	0	0	0	0	0	0	0
Manhole Rehab	25,000	26,033	27,109	28,229	29,395	30,610	31,875	33,192	34,563	0	266,006
Main Slip Line Install 1,000' per year (10,000 Lineal Ft)	100,000	104,132	108,435	112,915	117,581	122,440	127,499	132,767	138,253	0	1,064,023
Lateral Replacements	25,000	26,033	27,109	28,229	29,395	30,610	31,875	33,192	34,563	0	266,006
Replace Lakeshore to Rose Force Main (2,100')	400,000	416,528	0	0	0	0	0	0	0	0	816,528
Point Repairs	10,000	10,413	10,843	11,292	11,758	12,244	12,750	13,277	13,825	0	106,402
Crew Room Upgrade - Corporation Yard	100,000	156,198	0	0	0	0	0	0	0	0	256,198
Water Truck Replacement (3-Way)	0	0	0	0	0	0	0	0	0	0	0
Dump Truck Replacement (3-Way)	50,000	0	0	0	0	0	0	0	0	0	50,000
Sludge Removal	0	0	0	0	0	918,298	0	0	0	0	918,298
Flat Bed (3-Way)	50,000	0	0	0	0	0	0	0	0	0	50,000
PW Foreman Vehicle (3-Way)	0	0	0	0	0	0	0	0	0	0	0
Plant Upgrade	0	0	0	0	1,175,812	0	0	0	0	0	1,175,812
Irrigation Pump Room Roll Up Doors	0	0	0	0	0	0	0	0	0	0	0
Master Plan	0	0	108,435	0	0	0	0	0	0	0	108,435
Lift Station Pumps	50,000	0	0	56,458	0	0	63,750	0	0	0	170,207
Sodium Hypochlorite Changeover	0	0	0	0	0	0	0	0	0	0	0
Plant Expansion/Disposal	1,000,000	0	0	0	0	0	0	0	0	0	1,000,000
Total	\$2,310,000	\$739,338	\$336,148	\$1,253,362	\$1,951,848	\$1,114,201	\$267,748	\$212,428	\$221,205	\$0	\$8,406,278

Lakeport, CA Sewer Expansion Fee Model Capital Cost Percent Allocation

	Capital Costs Allocated to	System Expansion	
	Existing Customers (System	Costs Allocated to New	
Description - Inflated	Upgrade)	Customers	Total Allocation
Lakeport Blvd Sewer Main (Larrecou - Main)	95%	5%	100%
Replace/Upsize Main - Martin (Bevins to LS) 1200'	95%	5%	100%
WWTP Parallel Chlorine Contactor 600'	80%	20%	100%
WWTP Treatment Performance Study	50%	50%	100%
Replace HVAC WWTP	100%	0%	100%
SCADA Upgrades - Software/Hardware	100%	0%	100%
Upgrade Telecommunications - WWTP	100%	0%	100%
WWTP Replace Nylon Curtain in Ponds	100%	0%	100%
Effluent Pumps	100%	0%	100%
Manhole Rehab	100%	0%	100%
Main Slip Line Install 1,000' per year (10,000 Lineal Ft)	100%	0%	100%
Lateral Replacements	50%	50%	100%
Replace Lakeshore to Rose Force Main (2,100')	50%	50%	100%
Point Repairs	100%	0%	100%
Crew Room Upgrade - Corporation Yard	100%	0%	100%
Water Truck Replacement (3-Way)	100%	0%	100%
Dump Truck Replacement (3-Way)	100%	0%	100%
Sludge Removal	100%	0%	100%
Flat Bed (3-Way)	100%	0%	100%
PW Foreman Vehicle (3-Way)	100%	0%	100%
Plant Upgrade	80%	20%	100%
Irrigation Pump Room Roll Up Doors	100%	0%	100%
Master Plan	80%	20%	100%
Lift Station Pumps	80%	20%	100%
Sodium Hypochlorite Changeover	80%	20%	100%
Plant Expansion/Disposal	0%	100%	100%

Lakeport, CA Sewer Expansion Fee Model Capital Cost Allocation

	Capital Costs Allocated to	System Expansion	
	Existing Customers (System	Costs Allocated to	
Description - Inflated	Upgrade)	New Customers	Total
^			
Lakeport Blvd Sewer Main (Larrecou - Main)	\$965,427	\$50,812	\$1,016,239
Replace/Upsize Main - Martin (Bevins to LS) 1200'	475,000	25,000	500,000
WWTP Parallel Chlorine Contactor 600'	470,325	117,581	587,906
WWTP Treatment Performance Study	0	0	0
Replace HVAC WWTP	0	0	0
SCADA Upgrades - Software/Hardware	54,217	0	54,217
Upgrade Telecommunications - WWTP	0	0	0
WWTP Replace Nylon Curtain in Ponds	0	0	0
Effluent Pumps	0	0	0
Manhole Rehab	266,006	0	266,006
Main Slip Line Install 1,000' per year (10,000 Lineal Ft)	1,064,023	0	1,064,023
Lateral Replacements	133,003	133,003	266,006
Replace Lakeshore to Rose Force Main (2,100')	408,264	408,264	816,528
Point Repairs	106,402	0	106,402
Crew Room Upgrade - Corporation Yard	256,198	0	256,198
Water Truck Replacement (3-Way)	0	0	0
Dump Truck Replacement (3-Way)	50,000	0	50,000
Sludge Removal	918,298	0	918,298
Flat Bed (3-Way)	50,000	0	50,000
PW Foreman Vehicle (3-Way)	0	0	0
Plant Upgrade	940,650	235,162	1,175,812
Irrigation Pump Room Roll Up Doors	0	0	0
Master Plan	86,748	21,687	108,435
Lift Station Pumps	136,166	34,041	170,207
Sodium Hypochlorite Changeover	0	0	0
Plant Expansion/Disposal	0	1,000,000	1,000,000
T-4-1	¢(200 777	¢2 025 551	¢0 406 279
10(a)	\$0,380,727	\$2,025,551	\$8,406,278

Lakeport, CA Sewer Expansion Fee Model Expansion Fee Calculation - Buy-In

				Replacement Cost
		Original Cost Loss	Poplacement Cost	Depression
Description	Original Cost	Depression	New (PCN)	(PCNLD)
Description	Original Cost	Depreciation	new (KCN)	(KCNLD)
Buy-In - Assels	\$2 508 566 00	\$2 508 566 00	\$2 508 566 00	\$2 509 566 00
Cash and Cash Equivalents	\$5,508,500.00	\$5,508,500.00	\$5,508,500.00	\$5,508,500.00
Fixed Assets				
Liftstation	\$0.00	\$0.00	\$3,456,000.00	\$1,395,300.00
WWTP	\$0.00	\$0.00	\$19,325,000.00	\$14,285,833.33
Collection	\$0.00	\$0.00	\$11,788,000.00	\$5,894,000.00
Total Fixed Assets	\$0.00	\$0.00	\$34,569,000.00	\$21,575,133.33
Less: Principal (Non-Growth)	\$0.00	\$0.00	\$0.00	\$0.00
Total Assets	\$3,508,566.00	\$3,508,566.00	\$38,077,566.00	\$25,083,699.33
Number of RUE's	\$4,178.45	\$4,178.45	\$4,178.45	\$4,178.45
Proposed Expansion Fee per RUE	\$839.68	\$839.68	\$9,112.84	\$6,003.11
Peak Day Demand Capacity Average Sewer Flows (gpd)	190		1,390,000	
Average Use per RUE	170	190		
Peak Demand (Max Day to Avg Day)		1 75		
Sewer Flows per RUE		1.75	333	
Total RUFs			4 178	
			.,.,.	

Lakeport, CA Sewer Expansion Fee Model Expansion Fee Calculation - Incremental

	-	
Description		Value
Incremental - Capital		\$2,025,550.97
Incremental - Interest Costs		\$0.00
Total Assets		\$2,025,550.97
Additional Peak Day Demand Capacity	347,500	
Peak Demand (Max Day to Avg Day) per RUE	333	
Additional RUE's		1,045
Proposed Expansion Fee per RUE		\$1 938 33
		\$1,750.55
Average Sewer Flows (gpd)	190	
Average Use per RUE		190
Peak Demand (Max Day to Avg Day)		1.75
Sewer Flows per RUE	-	333

Lakeport, CA Sewer Expansion Fee Model Expansion Fee Calculation - Hybrid

				Replacement Cost
				New Less
		Original Cost Less	Replacement Cost	Depreciation
Description	Original Cost	Depreciation	New (RCN)	(RCNLD)
Buy-In - Assets	\$3,508,566.00	\$3,508,566.00	\$38,077,566.00	\$25,083,699.33
Less: Credit for Operations Debt Service	\$0.00	\$0.00	\$0.00	\$0.00
Buy-In Component Valuation	\$3,508,566.00	\$3,508,566.00	\$38,077,566.00	\$25,083,699.33
Number of EDUs	\$4,178.45	\$4,178.45	\$4,178.45	\$4,178.45
Buy-In Expansion Fee	\$839.68	\$839.68	\$9,112.84	\$6,003.11
Incremental - Assets	\$2,025,550.97	\$2,025,550.97	\$2,025,550.97	\$2,025,550.97
Incremental - Financing Costs	\$0.00	\$0.00	\$0.00	\$0.00
Incremental Component Valuation	\$2,025,550.97	\$2,025,550.97	\$2,025,550.97	\$2,025,550.97
Number of EDUs	\$1,045.00	\$1,045.00	\$1,045.00	\$1,045.00
Incremental Expansion Fee	\$1,938.33	\$1,938.33	\$1,938.33	\$1,938.33
Proposed Expansion Fee	\$2,778.01	\$2,778.01	\$11,051.17	\$7,941.44
Current Expansion Fee	\$15,330.00	\$15,330.00	\$15,330.00	\$15,330.00
Change	(\$12,551.99)	(\$12,551.99)	(\$4,278.83)	(\$7,388.56)





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