



Leland Meadow Water District Water and Sewer Rate Study Report

March 7, 2019



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

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1 BACKGROUND & OBJECTIVES

1.1 Background

Leland Meadow Water District (District) was founded in 1965 and provides water and sewer service to 60 customers. The District is located in Tuolumne County on the Western slopes of the Sierra Nevada Mountains in the Stanislaus National Forest.

The District is entirely funded by fees for the services it provides. Currently, customers are charged a single, fixed rate of \$300 per quarter (\$100.00 per month). This rate includes both water and sewer service.

1.2 Rate Study Objectives

In January 2019, the District retained Bartle Wells Associates (BWA) to provide financial plans and rate studies for the water and sewer enterprises. Key goals and objectives of the studies include developing rates that:

- Recover the costs of providing service including operating costs, capital costs, and building prudent reserves;
- Are fair and equitable to all customers;
- Are easy to understand and implement;
- Comply with the substantive cost-of-service requirements of the California Constitution, Article 13D, Section 6 (established by Proposition 218) and the general mandate of Article 10, Section 2 that prohibits the wasteful use of water;
- Support the District's long-term operational and financial stability.

This report summarizes key findings and recommendations for rates over the next five years. The full set of tables are included in the appendix to this report.

2 LEGAL REQUIREMENTS & RATE METHODOLOGY

2.1 Constitutional Rate Requirements

The California Constitution includes two key articles that directly govern or impact the District's water rates: Article 10 and Article 13D. The water rates developed in this study were designed to comply with both of these constitutional mandates as well as various provisions of the California Water Code and Government Code that support and add further guidance for implementing these constitutional requirements. In accordance with the constitutional provisions, the proposed rates are designed to a) recover the District's cost of providing service, b) recover revenues in proportion to the cost for serving each customer, and c) promote conservation and discourage waste.

2.1.1 Article 10, Section 2

Article 10, Section 2 of the California Constitution was established by voter-approval in 1976 and requires public agencies to maximize the beneficial use of water, prevent waste, and encourage conservation. Section 2 states that:

It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.

2.1.2 Article 13D, Section 6

Proposition 218 was adopted by California voters in 1996 and added Articles 13C and 13D to the California Constitution. Article 13D, Section 6 governs property-related charges, which the California Supreme Court subsequently ruled includes ongoing utility System Charges such as water, sewer, and garbage rates. Article 13D, Section 6 establishes a) procedural requirements for imposing or increasing property-related charges, and b) substantive requirements for those charges. Article 13D also requires voter approval for new or increased property-related charges but exempts rates for water, sewer, and garbage service from this voting requirement if the appropriate procedure is followed.

The substantive requirements of Article 13D, Section 6 require the District's water rates to meet the following conditions:

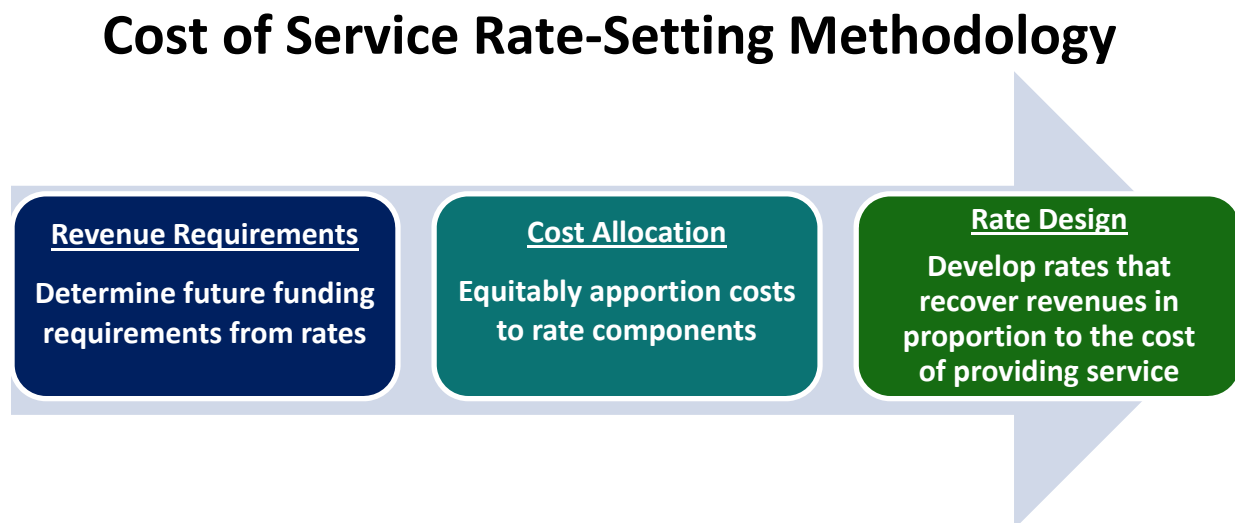
- 1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.
- 2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
- 3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
- 4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question.
- 5) No fee or charge may be imposed for general governmental services, such as police or fire services, where the service is available to the public at large in substantially the same manner as it is to property owners.

2.2 Separation of Funds

Historically, the District has identified the specific area (water or sewer) for each cost incurred by the District but has maintained a single set of financial records for both water and sewer expenses. As California law requires rates be proportional to the service provided, BWA recommends treating the water and sewer services as separate enterprise funds with separate rates. This study provides a separate financial plan and rate for the water and sewer enterprises.

2.3 Rate-Setting Methodology

The rates developed in this report use a straightforward methodology to establish equitable charges that recover the cost of providing service and fairly apportion costs. The general methodology used in this study is summarized in the following figure.



3 WATER FINANCES & CASH FLOW PROJECTIONS

3.1 Financial Overview

Bartle Wells Associates conducted an independent evaluation of the water enterprise's finances.

Key observations include:

- Projected operating and capital expenses will exceed revenues.
- The capital expenses for the water enterprise are projected to total \$444,246 from 2019 through 2028. The District plans to cash fund all capital expenses. Cash funding capital expenses will allow rates to be lower in the long term.
- The District needs to accumulate reserves in order to cash fund capital expenses and be prepared for emergency expenses.

3.2 Enterprise Financial Projections

BWA developed long-term cash flow projections to determine the water enterprise's annual revenue requirements and project required water rate revenue increases. The financial projections incorporate the latest information available as well as a number of reasonable and slightly conservative assumptions. Key information and assumptions include:

Reserves

- The District must use all of the current reserves for the sewer enterprise. However, if the proposed rate increases are adopted the water enterprise will end the year with \$25,400 in reserves. Due to the small size of the District, BWA recommends the District maintain two years of operating expenses in reserve. Reserves will fluctuate based on the timing of capital expenses, but the proposed rates are projected to provide the water enterprise sufficient reserves.

Revenue Assumptions

- Investment income is estimated based on projected reserve levels. Future projections are estimated based on conservative interest earning rates; and actual amounts will vary based on reserves and future interest earning rates.

Expense Assumptions

- Operating and maintenance costs are based on the 2018-19 budget and escalate at the annual rate of 3.0% to account for future cost inflation. This assumption is based on the 1990 through 2018 Engineering News-Record's average annual cost increase.

3.3 Projected Rate Increases

The following table shows the projected overall recommended rate increases needed to meet the District’s annual revenue requirements.

Table 1. Proposed Rate Adjustments

	2019	2020	2021	2022	2023
Rate Revenue Increase	100.0%	3.0%	3.0%	3.0%	3.0%

In future years, the District can re-evaluate its future rate and revenue requirements based on future updates of long-term financial projections. The District always has the flexibility to implement rates that are lower than those adopted pursuant to the Proposition 218 process. However, future rates cannot exceed levels adopted via the Proposition 218 process without going through the Proposition 218 process for any additional increases. Rates adopted pursuant to Proposition 218 process are essentially future rate caps.

3.4 Projected Cashflow with Rate Increases

Figure 1 shows 5-year cash flow projections incorporating the assumptions described above. The rate projections shown on the table are designed to fund the District’s cost of providing service while maintaining balanced budgets and prudent minimal levels of fund reserves each year.

Figure 1: Projected Revenues & Expenses

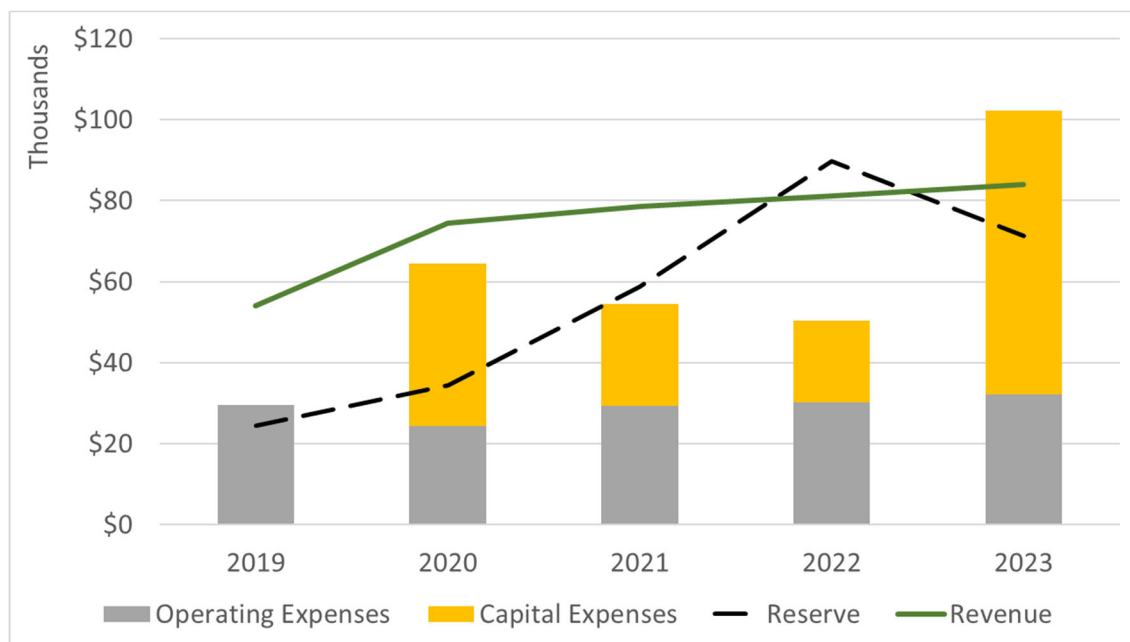


Table 2. Projected Revenues & Expenses

Water Enterprise Fund	2019	2020	2021	2022	2023
Reserves					
Beginning Fund Balance	\$0	\$24,500	\$34,487	\$58,726	\$89,675
Revenue Escalation					
Rate Revenue Increase	100.0%	3.0%	3.0%	3.0%	3.0%
Revenues					
Operating Revenue					
User Charge Revenue	\$36,000	\$72,000	\$76,014	\$78,294	\$80,643
Revenue From Rate Increase	36,000	2,160	2,280	2,349	2,419
Revenue Timing Adjustment*	-18,000				
Interest on Reserves	\$0	\$245	\$345	\$587	\$897
Total Operating Revenue	\$54,000	\$74,405	\$78,639	\$81,231	\$83,959
Total Revenue	\$54,000	\$74,405	\$78,639	\$81,231	\$83,959
Expenses					
Total Operating Expenses	\$29,500	\$24,418	\$29,400	\$30,282	\$32,148
Non-Operating Expenses					
Inspection of Distribution System	\$0	\$30,000	\$0	\$0	\$0
Inspect Interior of Water Tank	0	0	5,000	0	0
Distribution System Repairs	0	10,000	20,000	20,000	10,000
Reserve Study Capital Projects	\$0	\$0	\$0	\$0	\$60,120
Total Non-Operating Expenses	\$0	\$40,000	\$25,000	\$20,000	\$70,120
Total Expenses	\$29,500	\$64,418	\$54,400	\$50,282	\$102,268
Revenues Less Expenses	\$24,500	\$9,987	\$24,239	\$30,949	-\$18,308
Ending Fund Balance	\$24,500	\$34,487	\$58,726	\$89,675	\$71,367
*Revenue timing adjustment accounts for mid-year rate increases (July 1, 2019)					
Reserve Analysis					
Ending Balance	\$24,500	\$34,487	\$58,726	\$89,675	\$71,367
Target Reserve (2 years O&M expense)	59,000	48,836	58,800	60,564	64,296
Variance from Target	-\$34,500	-\$14,349	-\$74	\$29,111	\$7,071

4 SEWER FINANCES & CASH FLOW PROJECTIONS

4.1 Financial Overview

Bartle Wells Associates conducted an independent evaluation of sewer enterprise finances. Key observations include:

- Projected operating and capital expenses will exceed revenues.
- The District projects capital expenses of \$370,508 from 2019 through 2028. The District plans to cash fund all capital expenses. Cash funding capital expenses will allow rates to be lower in the long term.
- The District needs to accumulate reserves in order to cash fund capital expenses and be prepared for emergency expenses.

4.2 Enterprise Financial Projections

BWA developed long-term cash flow projections to determine the sewer enterprise's annual revenue requirements and project required sewer rate revenue increases. The financial projections incorporate the latest information available as well as a number of reasonable and slightly conservative assumptions. Key information and assumptions include:

Reserves

- The District must use all \$31,838 of the existing reserves for the sewer enterprise. If the proposed rate increases are adopted the sewer enterprise is projected to end the year with \$3,257 in reserves. Due to the small size of the District, BWA recommends the District maintain two years of operating expenses in reserve. Reserves will fluctuate based on the timing of capital expenses, but the proposed rates are projected to provide the sewer enterprise sufficient reserves.

Revenue Assumptions

- Investment income is estimated based on projected reserve levels. Future projections are estimated based on conservative interest earning rates; and actual amounts will vary based on reserves and future interest earning rates.

Expense Assumptions

- Operating and maintenance costs are based on the 2018-19 budget and escalate at the annual rate of 3.0% to account for future cost inflation. This assumption is based on the 1990 through 2018 Engineering News-Record's average annual cost increase.

4.3 Projected Rate Increases

The following table shows the projected overall rate increases needed to meet the District’s annual revenue requirements.

Table 3. Proposed Rate Adjustments

	2019	2020	2021	2022	2023
Rate Revenue Increase	100.0%	3.0%	3.0%	3.0%	3.0%

In future years, the District can re-evaluate its future rate and revenue requirements based on future updates of long-term financial projections. The District always has the flexibility to implement rates that are lower than those adopted pursuant to the Proposition 218 process. However, future rates cannot exceed levels adopted via the Proposition 218 process without going through the Proposition 218 process for any additional increases. Rates adopted pursuant to Proposition 218 process are essentially future rate caps.

4.4 Projected Cashflow with Rate Increases

Figure 1 shows 5-year cash flow projections incorporating the assumptions described above. The rate projections shown on the table are designed to fund the District’s cost of providing service while maintaining balanced budgets and prudent minimal levels of fund reserves each year.

Figure 2: Projected Revenues & Expenses

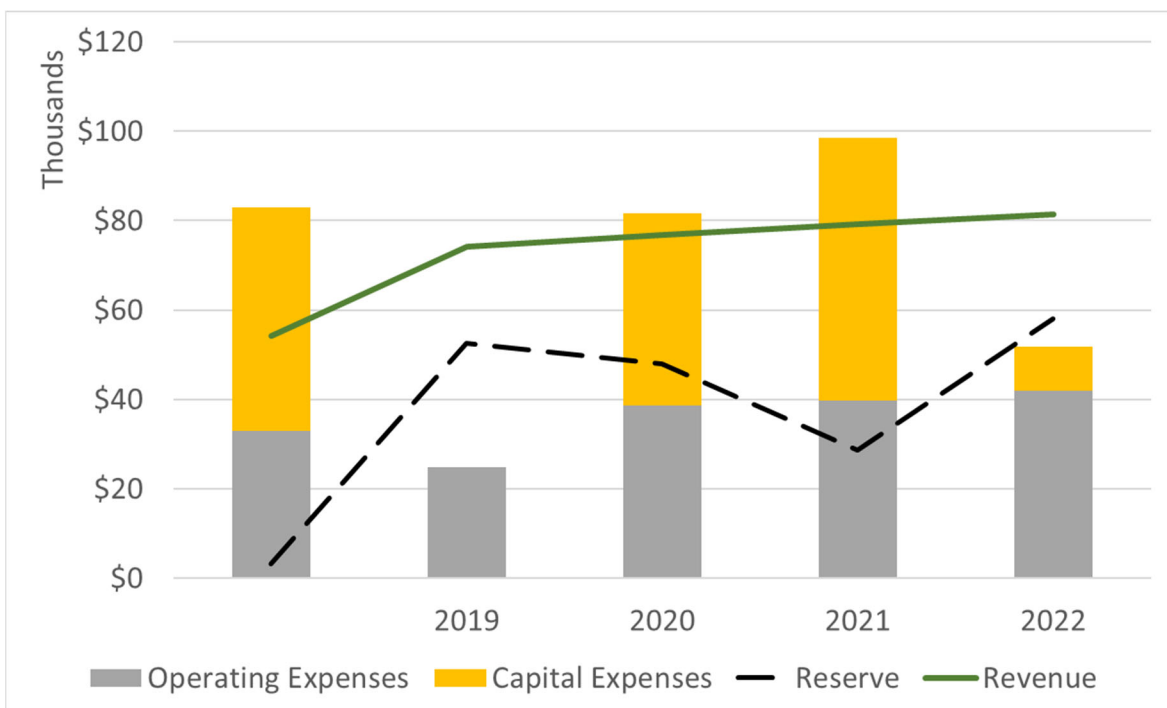


Table 4. Projected Revenues & Expenses

Sewer Enterprise Fund	2019	2020	2021	2022	2023
Reserves					
Beginning Fund Balance	\$31,838	\$3,257	\$52,619	\$48,011	\$28,639
Revenue Escalation					
Rate Revenue Increase	100.0%	3.0%	3.0%	3.0%	3.0%
Revenues					
Operating Revenue					
User Charge Revenue	\$36,000	\$72,000	\$74,160	\$76,385	\$78,676
Revenue From Rate Increase	36,000	2,160	2,225	2,292	2,360
Revenue Timing Adjustment*	-18,000				
Other Revenue	0	0	0	0	0
Interest on Reserves	\$318	\$33	\$526	\$480	\$286
Total Operating Revenue	\$54,318	\$74,193	\$76,911	\$79,156	\$81,323
<i>Total Revenue</i>	<i>\$54,318</i>	<i>\$74,193</i>	<i>\$76,911</i>	<i>\$79,156</i>	<i>\$81,323</i>
Expenses					
Total Operating Expenses	\$32,900	\$24,830	\$38,574	\$39,732	\$41,881
Non-Operating Expenses					
Collection System Repairs	\$10,000	\$0	\$0	\$0	\$0
Lateral Lines	7,500	0	0	0	0
Inspect Main Line on Lots 43 & 44	3,750	0	0	0	0
Inspect Main Line on Lots 54 - 58 (543')	3,750	0	0	0	10,000
Manhole #05 @ Lots 49-50	10,000	0	0	0	0
Manhole Cleanout Lots #42-43	10,000	0	0	0	0
Reserve Study Capital Projects	\$5,000	\$0	\$42,945	\$58,797	\$0
Total Non-Operating Expenses	\$50,000	\$0	\$42,945	\$58,797	\$10,000
<i>Total Expenses</i>	<i>\$82,900</i>	<i>\$24,830</i>	<i>\$81,519</i>	<i>\$98,529</i>	<i>\$51,881</i>
Revenues Less Expenses	-\$28,582	\$49,363	-\$4,608	-\$19,372	\$29,442
Ending Fund Balance	\$3,257	\$52,619	\$48,011	\$28,639	\$58,081
*Revenue timing adjustment accounts for mid-year rate increases (July 1, 2019)					
Reserve Analysis					
Ending Balance	\$3,257	\$52,619	\$48,011	\$28,639	\$58,081
Target Reserve (2 years O&M expense)	\$65,800	\$49,660	\$77,148	\$79,464	\$83,762
Variance from Target	-\$62,543	\$2,959	-\$29,137	-\$50,825	-\$25,681

5 RATE ANALYSIS

5.1 Rate Derivation Overview

The California Constitution does not give agencies leeway to arbitrarily set rates purely based on policy preferences. Instead, it provides agencies with flexibility to implement rates within a framework established by Articles 10 and 13D. Together, these Articles establish that rates should both a) discourage waste and encourage conservation of water, and b) not exceed the costs of service attributable to each parcel or customer.

Ultimately, there is no single correct way to allocate or attribute costs. Hence, five similar agencies may have five different rate structures provided each agency can establish a reasonable cost basis for their own particular rate structure within the parameters of meeting the various requirements of the California Constitution.

While there is no single correct approach for cost attribution and rate-setting, BWA believes that costs should be allocated within a reasonable range that reflects both a) underlying cost causation, to the extent such causation can reasonably be determined or estimated, and b) the policy preferences of the agency within the parameters of having a reasonable cost basis. The rates developed in this report are designed to achieve the District's policy preferences while complying with the requirements of the California Constitution.

5.2 Rate Structure

Rates are required to equitably allocate costs to each customer based on the level of service provided to each customer. BWA believes the current monthly fixed rate structure for both water and sewer rates is equitable to all customers and optimal for such a small district. The structure is optimal for a small district because a monthly fixed rate structure provides financial stability (as monthly fees do not fluctuate) and requires much less administrative effort. The structure is equitable for the following reasons:

- All connections were designed equivalently. The connections were not sized based on customer type or estimated usage. All customers can reasonably be grouped into one water and one sewer class.
- Customer usage is unusually variable because most of the customers do not reside in the District permanently. The occupancy driven variability in demand can make costs allocated to volumetric usage less equitable.
- It is important for the maintenance of the water and sewer systems to continually operate. While the few permanent residents may have greater consumption and discharge than secondary residents, water and sewer systems need regular usage to stay functional. The consistent use by primary residents benefits secondary residents.
- The majority of the District's costs are fixed from year-to-year. Variable costs account for less than 5% of expenses for both the water and sewer enterprises. The main service provided by

the District is the sitting infrastructure (the pipes in the ground) making service continually available to the District’s customers. The main services provided is not the quantity of water sold or waste collected.

As stated above there is no single correct way to allocate or attribute costs. The proposed rates were developed based on reasonable and equitable allocations for cost recovery for the services provided.

5.3 Rate Derivation

The monthly fixed rate derivation is simply the revenue requirement (projected amount of user charge revenue needed) divided by the number of customers, divided by the number of billing periods (12 for monthly billing).

6 PROPOSED RATES

6.1 Proposed Rates

The following table shows a 5-year schedule of proposed rates incorporating the overall level of required rate increases to fund District’s costs of providing service. Beginning July 1st, 2019, the District plans to bill customers on a monthly basis.

Table 5 Proposed Rates

Monthly Fixed Rates	2019	2019	2020	2021	2022	2023	2024
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
<i>Rates Effective Date</i>		<i>7/1/2019</i>	<i>1/1/2020</i>	<i>1/1/2021</i>	<i>1/1/2022</i>	<i>1/1/2023</i>	<i>1/1/2024</i>
Water Rates	\$50.00	\$100.00	\$103.00	\$106.09	\$109.28	\$112.56	\$115.94
Sewer Rates	\$50.00	\$100.00	\$103.00	\$106.09	\$109.28	\$112.56	\$115.94

APPENDIX A

Additional Water and Sewer Rate Study Tables



Leland Meadow Water District Water and Sewer Rate Study 2019

**Rate Model
March 7, 2019**



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

**Bartle Wells Associates
Leland Meadows Executive
Executive Summary 1**

Rate	2019	2019	2020	2021	2022	2023
	<i>Current</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
Water Summary						
Improved Parcels	60	60	60	60	60	60
Monthly Fixed Rate	\$50.00	\$100.00	\$103.00	\$106.09	\$109.28	\$112.56
<i>Average Total Monthly Increase</i>		<i>100.0%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>3.0%</i>
Sewer Summary						
Improved Parcels	60	60	60	60	60	60
Monthly Fixed Rate	\$50.00	\$100.00	\$103.00	\$106.09	\$109.28	\$112.56
<i>Average Total Monthly Increase</i>		<i>100%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>3.0%</i>
Combined Water and Sewer Summary						
Combined Water and Sewer Rate	\$100.00	\$200.00	\$206.00	\$212.18	\$218.56	\$225.12
<i>Average Total Monthly Increase</i>		<i>100%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>3.0%</i>

**Bartle Wells Associates
Leland Meadows Executive
Executive Summary 2**

Reserve Funds	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Water Reserve	\$24,500	\$34,487	\$58,726	\$89,675	\$71,367	\$55,164	\$79,937	\$52,308	\$25,778	\$64,701
Sewer Reserve	<u>3,257</u>	<u>52,619</u>	<u>48,011</u>	<u>28,639</u>	<u>58,081</u>	<u>30,587</u>	<u>60,969</u>	<u>60,555</u>	<u>111,861</u>	<u>94,392</u>
Total Reserves	\$27,757	\$87,106	\$106,737	\$118,314	\$129,447	\$85,751	\$140,905	\$112,863	\$137,639	\$159,093

Capital Spending	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
Water Reserve	\$0	\$40,000	\$25,000	\$20,000	\$70,120	\$70,420	\$30,894	\$85,197	\$85,525	\$17,091	\$444,246
Sewer Reserve	<u>50,000</u>	<u>0</u>	<u>42,945</u>	<u>58,797</u>	<u>10,000</u>	<u>74,466</u>	<u>17,714</u>	<u>50,247</u>	<u>0</u>	<u>66,339</u>	<u>370,508</u>
Total Reserves	\$50,000	\$40,000	\$67,945	\$78,797	\$80,120	\$144,886	\$48,608	\$135,444	\$85,525	\$83,430	\$814,754

Use of Funds	Amount
2028 Reserves	\$159,093
2028 Total Capital Spending	<u>814,754</u>
Total Non-Operating Funds Raised from Rates	\$973,847

Table 1
Leland Meadows Water District
Water Rate Study
Projected Operating Revenues

Revenue	2017	2018	2019	2020	2021	2022	2023
	<i>Actual</i>	<i>Actual</i>	<i>Estimated</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
Rate Revenue	\$31,725	\$34,588	\$36,000	\$72,000	\$76,014	\$78,294	\$80,643
Additional Revenue From Rate Increase			\$18,000	\$2,160	\$2,280	\$2,349	\$2,419
Other Revenue							
Special Assessment	\$8,177	\$750	\$0				
Interest Income - Savings	5	5	0				
Penalties/Late Charges	478	727	0				
Miscellaneous Income	0	0	0				
Hookup Fees							
Bank Service Changes	(\$49)	\$0	\$0				
Total Other Revenue	\$8,611	\$1,482	\$0	\$0	\$0	\$0	\$0
Total Operating Revenue	\$40,336	\$36,069	\$54,000	\$74,160	\$78,294	\$80,643	\$83,063
<i>% Change from Previous Year</i>	<i>136.8%</i>	<i>-10.6%</i>	<i>49.7%</i>	<i>37.3%</i>	<i>5.6%</i>	<i>3.0%</i>	<i>3.0%</i>

* Budgeted revenue reflects full collection

Table 2
Leland Meadows Water District
Water Rate Study
Projected Operating Expenses

Cost Escalation	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
General Inflation Factor				3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Operating Expenses	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	<i>Actual</i>	<i>Actual</i>	<i>Estimated</i>	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
Regulatory Requirements												
Water testing - Aqualab	\$1,150	\$1,230	\$1,200	\$1,236	\$1,273	\$1,311	\$1,351	\$1,391	\$1,433	\$1,476	\$1,520	\$1,566
Public Agency Fees	1,641	1,757	1,650	1,700	1,750	1,803	1,857	1,913	1,970	2,029	2,090	2,153
Insurance												
Insurance - Liability	1,053	1,095	1,250	1,288	1,326	1,366	1,407	1,449	1,493	1,537	1,583	1,631
Insurance - State Comp Insurance Fund	492	437	500	515	530	546	563	580	597	615	633	652
Maintenance												
Water System Supply & Fire System - Misc. Projects	7,409	19,546	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048
Professional services												
Professional Services - Accountant	235	0	0	0	0	0	0	0	0	0	0	0
Professional Services - Auditor	1,000	2,050	1,250	1,000	1,030	1,061	2,050	1,050	1,075	1,107	1,140	1,175
Professional services - General Manager	2,760	3,191	3,600	3,708	3,819	3,934	4,052	4,173	4,299	4,428	4,560	4,697
Professional Services - Water & Sewer Consultant	0	269	0	0	0	0	0	0	0	0	0	0
Professional Services - Attorney	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Study	0	980	1,000	500	515	530	546	563	580	597	615	633
Miscellaneous												
Miscellaneous Expenses/Mileage	803	572	600	618	637	656	675	696	716	738	760	783
Postage/Office Supplies	289	265	300	309	318	328	338	348	358	369	380	391
Utilities - PG&E And AT&T	3,190	2,776	3,150	3,245	3,342	3,442	3,545	3,652	3,761	3,874	3,990	4,110
Other Costs												
Rate Study, Legal Support, Engineering Report	0	0	5,000	0	500	515	530	546	563	580	597	5,085
General Manager Increase (10h/w x 52 w x\$30)	\$0	\$0	\$0	\$0	\$3,750	\$3,863	\$3,978	\$4,098	\$4,221	\$4,347	\$4,478	\$4,612
Total Operating Expenses	\$20,022	\$34,166	\$29,500	\$24,418	\$29,400	\$30,282	\$32,148	\$32,051	\$33,006	\$33,996	\$35,016	\$40,536
<i>% Change from Previous Year</i>	<i>-10.4%</i>	<i>70.6%</i>	<i>-13.7%</i>	<i>-17.2%</i>	<i>20.4%</i>	<i>3.0%</i>	<i>6.2%</i>	<i>-0.3%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>3.0%</i>	<i>15.8%</i>

Table 3
Leland Meadows Water District
Water Rate Study
Water Cashflow Projection

Water Enterprise Fund	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Reserves										
Beginning Fund Balance	\$0	\$24,500	\$34,487	\$58,726	\$89,675	\$71,367	\$55,164	\$79,937	\$52,308	\$25,778
Revenue Escalation										
Rate Revenue Increase	100.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Revenues										
Operating Revenue										
User Charge Revenue	\$36,000	\$72,000	\$76,014	\$78,294	\$80,643	\$83,063	\$85,554	\$88,121	\$90,765	\$93,488
Revenue From Rate Increase	36,000	2,160	2,280	2,349	2,419	2,492	2,567	2,644	2,723	2,805
Revenue Timing Adjustment*	-18,000									
Interest on Reserves	\$0	\$245	\$345	\$587	\$897	\$714	\$552	\$799	\$523	\$258
Total Operating Revenue	\$54,000	\$74,405	\$78,639	\$81,231	\$83,959	\$86,268	\$88,673	\$91,564	\$94,011	\$96,550
<i>Total Revenue</i>	<i>\$54,000</i>	<i>\$74,405</i>	<i>\$78,639</i>	<i>\$81,231</i>	<i>\$83,959</i>	<i>\$86,268</i>	<i>\$88,673</i>	<i>\$91,564</i>	<i>\$94,011</i>	<i>\$96,550</i>
Expenses										
Total Operating Expenses	\$29,500	\$24,418	\$29,400	\$30,282	\$32,148	\$32,051	\$33,006	\$33,996	\$35,016	\$40,536
Non-Operating Expenses										
Inspection of Distribution System	\$0	\$30,000	\$0	\$0	\$0	\$0	\$10,000	\$10,000	\$10,000	\$0
Inspect Interior of Water Tank	0	0	5,000	0	0	0	0	0	0	0
Distribution System Repairs	0	10,000	20,000	20,000	10,000	10,300	10,609	10,927	11,255	11,593
Reserve Study Capital Projects	\$0	\$0	\$0	\$0	\$60,120	\$60,120	\$10,285	\$64,270	\$64,270	\$5,498
Total Non-Operating Expenses	\$0	\$40,000	\$25,000	\$20,000	\$70,120	\$70,420	\$30,894	\$85,197	\$85,525	\$17,091
<i>Total Expenses</i>	<i>\$29,500</i>	<i>\$64,418</i>	<i>\$54,400</i>	<i>\$50,282</i>	<i>\$102,268</i>	<i>\$102,471</i>	<i>\$63,900</i>	<i>\$119,193</i>	<i>\$120,541</i>	<i>\$57,627</i>
Revenues Less Expenses	\$24,500	\$9,987	\$24,239	\$30,949	-\$18,308	-\$16,202	\$24,773	-\$27,629	-\$26,530	\$38,923
Ending Fund Balance	\$24,500	\$34,487	\$58,726	\$89,675	\$71,367	\$55,164	\$79,937	\$52,308	\$25,778	\$64,701
*Revenue timing adjustment accounts for mid-year rate increases (July 1, 2019)										
Reserve Analysis										
Ending Balance	\$24,500	\$34,487	\$58,726	\$89,675	\$71,367	\$55,164	\$79,937	\$52,308	\$25,778	\$64,701
Target Reserve (2 years O&M expense)	59,000	48,836	58,800	60,564	64,296	64,102	66,012	67,992	70,032	81,072
Variance from Target	-\$34,500	-\$14,349	-\$74	\$29,111	\$7,071	-\$8,938	\$13,925	-\$15,684	-\$44,254	-\$16,371

Table 1
Leland Meadows Sewer District
Sewer Rate Study
Projected Operating Revenues

Revenue	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	<i>Estimated</i>	<i>Budget</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
Rate Revenue	\$31,725	\$34,588	\$36,000	\$72,000	\$74,160	\$76,385	\$78,676	\$81,037	\$83,468	\$85,972	\$88,551	\$91,207
Additional Revenue From Rate Increase			\$18,000	\$2,160	\$2,225	\$2,292	\$2,360	\$2,431	\$2,504	\$2,579	\$2,657	\$2,736
Other Revenue												
Special Assessment	\$8,177	\$750										
Interest Income - Savings	5	5										
Penalties/Late Charges	478	727										
Miscellaneous Income	0	0										
Hookup Fees												
Bank Service Charges	(\$49)	\$0										
Total Other Revenue	\$8,611	\$1,482	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Operating Revenue	\$40,336	\$36,069	\$54,000	\$74,160	\$76,385	\$78,676	\$81,037	\$83,468	\$85,972	\$88,551	\$91,207	\$93,944
<i>% Change from Previous Year</i>	136.8%	-10.6%	49.7%	37.3%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

* Budgeted revenue reflects full collection

Table 2
Leland Meadows Sewer District
Sewer Rate Study
Projected Operating Expenses

Cost Escalation	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
General Inflation Factor				3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Expenses	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	<i>Actual</i>	<i>Actual</i>	<i>Estimated</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
Regulatory Requirements												
Maintenance - Sewer Plant Operator	\$6,885	\$7,025	\$7,200	\$7,416	\$7,638	\$7,868	\$8,104	\$8,347	\$8,597	\$8,855	\$9,121	\$9,394
Sewer plant testing - Aqualab	1,725	1,775	1,500	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900	1,957
Public Agency Fees	1,641	1,757	1,650	1,700	1,750	1,803	1,857	1,913	1,970	2,029	2,090	2,153
Insurance												
Insurance - Liability	1,053	1,095	1,250	1,288	1,326	1,366	1,407	1,449	1,493	1,537	1,583	1,631
Insurance - State Comp Insurance Fund	492	437	500	515	530	546	563	580	597	615	633	652
Maintenance												
Sewer system maintenance - misc. projects	5,063	6,458	5,000	5,150	10,305	10,614	10,932	6,260	6,448	6,641	6,840	7,046
Water tank road maintenance	16,964	0	3,000	0	0	0	0	0	0	0	0	0
Sewer New Manhole At Lots 44-45	0	16,880	0	0	0	0	0	0	0	0	0	0
Professional services												
Professional Services - Accountant	235	0	0	0	0	0	0	0	0	0	0	0
Professional Services - Auditor	1,000	2,050	1,250	1,000	1,030	1,061	2,050	1,050	1,075	1,107	1,140	1,175
Professional services - General Manager	2,760	3,191	3,600	3,708	3,819	3,934	4,052	4,173	4,299	4,428	4,560	4,697
Professional Services - Water & Sewer Consultant	0	269	0	0	0	0	0	0	0	0	0	0
Professional Services - Attorney	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Study	0	980	1,000	500	515	530	546	563	580	597	615	633
Miscellaneous												
Miscellaneous Expenses/Mileage	803	572	600	618	637	656	675	696	716	738	760	783
Postage/Office Supplies	289	265	300	309	318	328	338	348	358	369	380	391
Utilities - PG&E And AT&T	1,063	925	1,050	1,082	1,114	1,147	1,182	1,217	1,254	1,291	1,330	1,370
Property Lease - Sewer Plant	0	0	0	0	0	0	0	0	0	0	0	0
Other Costs												
Rate Study, Legal Support, Engineering Report	0	0	5,000	0	500	515	530	546	563	580	597	5,085
General Manager Increase (10h/w x 52 w x\$30)	\$0	\$0	\$0	\$0	\$3,750	\$3,863	\$3,978	\$4,098	\$4,221	\$4,347	\$4,478	\$4,612
Total Operating Expenses	\$39,973	\$43,679	\$32,900	\$24,830	\$38,574	\$39,732	\$41,881	\$37,076	\$38,182	\$39,327	\$40,507	\$46,192
<i>% Change from Previous Year</i>	76.6%	9.3%	-24.7%	-24.5%	55.4%	3.0%	5.4%	-11.5%	3.0%	3.0%	3.0%	14.0%

Table 3
Leland Meadows Sewer District
Sewer Rate Study
Sewer Cashflow Projection

Sewer Enterprise Fund	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Reserves										
Beginning Fund Balance	\$31,838	\$3,257	\$52,619	\$48,011	\$28,639	\$58,081	\$30,587	\$60,969	\$60,555	\$111,861
Revenue Escalation										
Rate Revenue Increase	100.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Revenues										
Operating Revenue										
User Charge Revenue	\$36,000	\$72,000	\$74,160	\$76,385	\$78,676	\$81,037	\$83,468	\$85,972	\$88,551	\$91,207
Revenue From Rate Increase	36,000	2,160	2,225	2,292	2,360	2,431	2,504	2,579	2,657	2,736
Revenue Timing Adjustment*	-18,000									
Other Revenue	0	0	0	0	0	0	0	0	0	0
Interest on Reserves	\$318	\$33	\$526	\$480	\$286	\$581	\$306	\$610	\$606	\$1,119
Total Operating Revenue	\$54,318	\$74,193	\$76,911	\$79,156	\$81,323	\$84,049	\$86,278	\$89,161	\$91,813	\$95,062
<i>Total Revenue</i>	<i>\$54,318</i>	<i>\$74,193</i>	<i>\$76,911</i>	<i>\$79,156</i>	<i>\$81,323</i>	<i>\$84,049</i>	<i>\$86,278</i>	<i>\$89,161</i>	<i>\$91,813</i>	<i>\$95,062</i>
Expenses										
Total Operating Expenses	\$32,900	\$24,830	\$38,574	\$39,732	\$41,881	\$37,076	\$38,182	\$39,327	\$40,507	\$46,192
Non-Operating Expenses										
Collection System Repairs	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Lateral Lines	7,500	0	0	0	0	0	0	0	0	0
Inspect Main Line on Lots 43 & 44	3,750	0	0	0	0	0	0	0	0	0
Inspect Main Line on Lots 54 - 58 (543')	3,750	0	0	0	10,000	10,200	0	0	0	0
Manhole #05 @ Lots 49-50	10,000	0	0	0	0	0	0	0	0	0
Manhole Cleanout Lots #42-43	10,000	0	0	0	0	0	0	0	0	0
Reserve Study Capital Projects	\$5,000	\$0	\$42,945	\$58,797	\$0	\$64,266	\$17,714	\$50,247	\$0	\$66,339
Total Non-Operating Expenses	\$50,000	\$0	\$42,945	\$58,797	\$10,000	\$74,466	\$17,714	\$50,247	\$0	\$66,339
<i>Total Expenses</i>	<i>\$82,900</i>	<i>\$24,830</i>	<i>\$81,519</i>	<i>\$98,529</i>	<i>\$51,881</i>	<i>\$111,542</i>	<i>\$55,896</i>	<i>\$89,574</i>	<i>\$40,507</i>	<i>\$112,531</i>
Revenues Less Expenses	-\$28,582	\$49,363	-\$4,608	-\$19,372	\$29,442	-\$27,494	\$30,382	-\$414	\$51,306	-\$17,469
Ending Fund Balance	\$3,257	\$52,619	\$48,011	\$28,639	\$58,081	\$30,587	\$60,969	\$60,555	\$111,861	\$94,392
*Revenue timing adjustment accounts for mid-year rate increases (July 1, 2019)										
Reserve Analysis										
Ending Balance	\$3,257	\$52,619	\$48,011	\$28,639	\$58,081	\$30,587	\$60,969	\$60,555	\$111,861	\$94,392
Target Reserve (2 years O&M expense)	\$65,800	\$49,660	\$77,148	\$79,464	\$83,762	\$74,152	\$76,364	\$78,654	\$81,014	\$92,384
Variance from Target	-\$62,543	\$2,959	-\$29,137	-\$50,825	-\$25,681	-\$43,565	-\$15,395	-\$18,099	\$30,847	\$2,008