# Financial Analysis prepared for the Lebec County Water District



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## November 2021

Funded by: State of California State Water Resources Control Board

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November 12, 2021

Emma Blankenship
Small Community Technical Assistance
Division of Financial Assistance
State Water Resources Control Engineer
1001 I St. 16<sup>th</sup> Floor
PO Box 944212
Sacramento, CA 95814

Subject: Lebec County Water District Rate Study

Dear Emma:

Enclosed please find the printed final report for Lebec County Water District Rate Study.

The rate adjustment options were presented to the Lebec County Water District board on October 12, 2021. From several options, the board selected one they feel will best fit their community. The Prop 218 process will begin immediately.

If you have any additional questions, feel free to contact Mary Fleming at 916/549-6338 or Michael Boyd at 308/641-2807.

Sincerely,

# Michael Boyd

Michael Boyd

RCAC, Regional Field Manager Community & Environmental Services

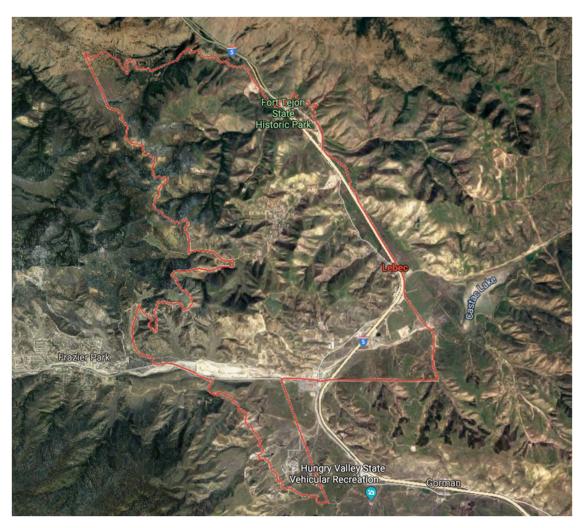
Enclosure: Lebec County Water District Water Rate Study

CC: Lebec County Water District

# 1. Lebec County Water District

# **Community**

Lebec County Water District (LCWD) serves the unincorporated town of Lebec, California in Kern County, approximately 40 miles south of the city of Bakersfield. With its location directly west of Interstate 5, Lebec is a popular stop for food, fuel, and rest for travelers passing through the area.



Lebec has a warm-summer Mediterranean climate with warm to hot, dry summers and mild to cool winters with occasional snowfall.

Lebec's population is approximately 1,500 people. The commercial properties are primarily hotels and restaurants. The town is expecting to see population growth in the next five years in the planned new subdivision.

The Median Household Income (MHI) of Lebec is estimated to be \$43,594<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> ACS 2019

### **Water System**

The LCWD's existing water system currently serves a permanent population of 1,478 persons through 227 residential service connections. The water system also has 52 commercial service connections and provides surplus water at a contracted rate. All of the LCWD's water service connections are metered.

The water sources for the system consist of three active wells: Lebec Well, State Well, and Chimney Canyon Well. Each well has chlorine treatment as a precautionary measure to ensure disinfected water in the distribution system. There are seven tank locations and four booster pumps to account for elevation changes and to maintain pressure throughout the distribution. The total holding capacity of all 19 storage tanks is approximately 520,000 gallons.

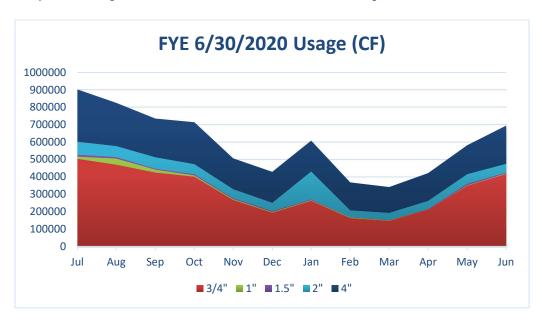
#### **Water District**

The LCWD was established by resolution of the Kern County Board of Supervisors, effective Dec. 26, 1967, in accordance with the provisions of the County Water District Law, Division 12, Section 30000 et seq., of the Water Code of the State of California and began operation of the existing water system in Lebec, California, on April 21, 1969. The LCWD was formed to provide for the organization and management of water works and for the acquisition or construction of facilities for the distribution and sale of water. The LCWD is under the jurisdiction of the District 19 - Tehachapi Regional Office of the California State Regional Waterboards.

The district provides community water service for domestic consumption, fire protection, and irrigation application for consumers within the community of Lebec.

Lebec is a rural community and has no sewer system or centralized wastewater treatment facility, relying instead on individual septic tank/leach field systems for wastewater treatment and disposal.

**Project Description<sup>2</sup> Current Production and Consumption** 



Based on recent data graphed above (in CF), the water system sees the highest water usage during the months of May to September. Water usage begins to decline from November to March. However, January 2020 saw an unusual spike in commercial usage. Seasonal fluctuations are relatively small and insignificant in terms of water usage and rate structure design. The lowest water usage is seen in February and March for all meter sizes.

## **Current Rates**

The LCWD currently charges its customers the following rates:

| Service Type  | Meter Size | Initial Allotment<br>(CF) | Monthly Service<br>Charge | Flat Rate (\$/CF) |
|---------------|------------|---------------------------|---------------------------|-------------------|
| Residential   | 3/4" - 2"  | 750                       | \$40.01                   | .023              |
| Residential - | 3/4" - 2"  | 1000                      | \$40.01                   | .023              |
| Conservation  |            |                           |                           |                   |
| Commercial    | 3/4"       | 250                       | \$60.02                   | .036              |
| Commercial    | 1"         | 250                       | \$100.25                  | .036              |
| Commercial    | 1.5"       | 250                       | \$199.90                  | .036              |
| Commercial    | 2"         | 250                       | \$319.96                  | .036              |
| Commercial    | 4"         | 250                       | \$1260.65                 | .036              |
| Commercial    | 6"         | 250                       | \$2801.65                 | .036              |
| Mobile Home   | 4"         | 750 X 44 units =          | \$40.01 X 44 units        | .023              |
| (ORMHP)       |            | 33,000                    | = \$1760.44               |                   |
| Mobile Home   | 2"         | 750 X 27 units =          | \$40.01 X 27 units        | .023              |
| (FMMHP)       |            | 20,250                    | = \$1080.27               |                   |

There are no tiers currently implemented, aside from the initial allotment amounts listed in the table above.

The LCWD water rates are all based on in-district customers, the type and size of service connection and how much water customers use. Domestic water use is measured and billed in units of single cubic feet (CF). One CF is equal to 7.48 gallons. The LCWD receives Kern County tax income to support its operations collected through a special assessment annually which allows for a reduction in the base rate or "service charge."

#### **Additional Fees**

In addition to monthly water rates, the LCWD also currently has the following fees:

| Ready to Use           | \$11.02 per month for shut off meters |
|------------------------|---------------------------------------|
| Transfer               | \$50                                  |
| Disconnect             | \$50                                  |
| Reconnect              | \$50                                  |
| Post 48-Hour Notice    | \$50                                  |
| Lock Out Fee           | \$250                                 |
| Water Service Estimate | \$150                                 |
| Late Charge            | 10% of outstanding charges            |

# **Proposed Rate Structure**

To comply with Prop 218, we recommend that the utility moves to a uniform block rate. Based on the uniform block rates, the residential and commercial customers have the same water rates. We propose a base rate dependent on meter size, and a single usage rate per 100 CF. The usage rate will be applied to all treated water sold.

# 2. Guiding Principles of this Rate Study

#### **Sustainability**

Water rates should cover the costs to the water utility to allow it to provide water services for the foreseeable future.

#### Fair

Water rates should be fair to all rate payers. No single rate payer or group of rate payers should be singled out for different rates. Therefore, the proposed rates do not make any distinction between domestic, commercial, or agricultural users. The rates are the same for all.

The company should not charge more for water than the cost to provide the water. However, the costs should include operations, repairs, reserves, and all other costs related to the production, treatment, and distribution of potable water now and in the foreseeable future.

#### Conservation

Water rates should promote conservation. Water is a limited resource and should be conserved.

## **Justifiable**

Water rates must be based on the actual financial needs of the company. Revenue generated from water rates can't be used for anything but to pay for the costs of procuring, treating, and distributing water within its service area, plus any administrative costs and reserves.

Therefore, the proposed rates are based on the LCWD's Budget, Capital Replacement Program, and a sales forecast.

## **Purpose of this study**

The purpose of this study is to provide the LCWD with recommended rates. The water system must be able to build reserves to cover their debt service and the inevitable need to replace all components of the operation.

#### **Board Decision**

While this document recommends certain rates, the ultimate decision rests with the LCWD's board. However, the board has a fiduciary responsibility to set the rates at such a level that the company will be able to continue to operate in the future, including providing funds to replace all parts of the system as they wear out.

#### Disclaimer

The recommendations contained in this rate study are based on financial information provided to RCAC by the LCWD. Although every effort was made to ensure the reliability of this information, no warranty is expressed or implied as to the correctness, accuracy or completeness of the information contained herein.

Any opinions, findings, and conclusions or recommendations expressed in this material are solely the responsibility of the authors and do not necessarily represent the official views of SWRCB, who funded this rate study.

For accounting advice, a CPA should be consulted. For legal advice, the company should seek the advice of an attorney.

# 3. Rate Study Process

The figure<sup>3</sup> below explains the process of setting rates.

We begin with the list of all capitalized assets, the current budget and the current sales history as provided by the administration from the LCWD.

# Existing Reserves: Budget Sales Debt, Operating, Assets Emergency Recommended Conservation & Reserves: Capital Inflation Fixed/Variable Debt. Reserve Growth Adjustment Split Adjustment Operating, Calculation Emergency 5-Year Forecasted Budget Revenue Forecast

# Rate Setting with Water Meters

Existing reserves are compared to target reserves and from the list of assets the required reserves are calculated (Section 4 of this report) and fed into a 5-year Budget projection (Section 5).

The Budget is adjusted for inflation, estimated to be 3 percent per year.

The number of customers is adjusted for unpaying customers, undeveloped lots and future water conservation and community growth reasonably expected to occur in the next five years.

<sup>&</sup>lt;sup>3</sup> All yellow fields and cells in the figures and exhibits of this report are based on external data. All blue fields or cells are calculated.

The budgeted expenses are split between Fixed and Variable costs, which lead to a recommended Base rate and Usage charges.

The calculated rates are then applied to the forecasted sales to arrive at a revenue estimate.

This process was repeated several times to arrive at an acceptable rate that would balance the budget by the fifth year.

# 4. Reserve Funding

As of June 30, 2021, the LCWD holds \$625,271.64 in unrestricted cash and cash equivalents.

AWWA standards recommend a review of four types of reserves:

- 1. Debt Reserve: LCWD currently has no debt.
- 2. Operating Reserve: Operating Reserves are established to provide the utility with the ability to withstand short-term cash-flow fluctuations. The industry standard calls for 1.5 times the operating expenses during a billing cycle. The target Operating Reserve is \$58,125 but the utility only has \$41,623 in Operating Reserves. Therefore \$3,300 will be added to the budget annually for the next five years to accumulate the shortage (\$16,502).
- 3. Emergency Reserve: Emergency Reserves are intended to help utilities deal with short-term emergencies, such as mainline breaks or pump failures. An Emergency Reserve is intended to fund the immediate replacement or reconstruction of the system's single most critical asset. Your emergency reserve should be set at the replacement cost of the most expensive component that could fail. In the case of the LCWD, it was determined that \$45,000 in emergency reserves would be sufficient. The LCWD currently has \$120,000 dedicated to Emergency Reserves due to a policy for a minimum level of emergency funds.
- 4. Capital Replacement Reserve (CRP): This reserve is strictly to be used to fund the company portion of any replacement of capital assets that are worn out. The LCWD currently has \$505,272 saved in Capital Reserves.

The tables below show the Existing Reserves and the Reserve Targets for each of the four Reserve categories. The amount of the shortfall in Operating Reserve is transferred to the Budget so the shortfall can be funded over the next five years.

The benefit of splitting the reserves into four types are:

- 1. These reserves have different time horizons: The Debt Reserve can be invested for a long period of time—as long as the debt is on the books. Operating Reserves and Emergency Reserves should be readily available, while CRP funds can be invested with different maturity dates to coincide with the planned need for capital replacements.
- 2. These four different reserves should require different policies related to:
  - a. Investment terms and vehicles
  - b. What the funds can be used for
  - c. Who can access the funds
  - d. What procedure has to be followed to access the funds

RCAC recommends that the LCWD develop an investment policy.

| Existing Reserves | Amount    |                                   |
|-------------------|-----------|-----------------------------------|
| Debt Reserve      | \$0       | As per lending agreement          |
| Operating Reserve | \$41,623  | To be placed in Checking Account  |
| Emergency Reserve | \$120,000 | To be placed in Savings Account   |
| Capital Reserve   | \$505,272 | Often in CD or investment account |
| Total             | \$666,895 |                                   |

| Reserve Targets   | Amount    | Annual Reserve<br>Addition                            | Excess funds<br>to be<br>transferred to<br>CRP | Goal                                |
|-------------------|-----------|---|--|-------------------------------------|
| Debt Reserve      | \$0       | \$0   | \$0  | As per lending agreement(s)         |
| Operating Reserve | \$58,125  | \$3,300   | \$0  | 45 days of expenses                 |
| Emergency Reserve | \$120,000 | \$0   | \$0  | Critical equipment replacement cost |
| Capital Reserve   | \$505,272 | This is the total amount currently available for CRP. |  |                                     |

# 5. Capital Replacement Program

#### **Source of the Data**

The data in the Capital Replacement Program (CRP) comes from the data supplied by the company and AWWA standards. It is shown on attached Exhibit 1.

The list of the components, their installation date, and their original costs were all supplied or estimated by the utility.

The Normal Estimated Life is based on AWWA or industry standards.

The Estimated Remaining Life is based on the best judgment of the Operator and RCAC.

## **Sources of Funding**

Funding for the replacement of components can only come from cash saved by the company, a grant or a loan.

The possibility of the LCWD obtaining a grant in the near future is high, but due to changing funding streams, access to grants may change in the future.

With the current funding information, the LCWD has a high chance of qualifying for grants but will also need out-of-pocket cash reserves. It is assumed that the replacement of smaller capital assets valued less than \$100,000 will be 100% funded with cash and the replacement of larger capital assets will be funded with a combination of cash and grants, as shown in the below table.

## **Default Funding of CRP**

|           |             | Cash | Grant | Loan |
|-----------|-------------|------|-------|------|
| \$0       | \$10,000    | 100% | 0%    | 0%   |
| \$10,001  | \$100,000   | 100% | 0%    | 0%   |
| \$100,001 | \$500,000   | 50%  | 50%   | 0%   |
| \$500,001 | \$9,999,999 | 15%  | 25%   | 60%  |

# **Capital Replacement Program (CRP) Description**

The CRP provides us with a detail of the reserves needed to replace the existing, funded, and future unfunded capital assets. The total line of the CRP table (Exhibit 1, \$48,121) is the amount the LCWD must put aside each year to be able to replace the assets listed when they reach the end of their life expectancy. This amount varies every year when old equipment is replaced and when new equipment is installed.

There are no current capital projects, but should additional projects be planned, those assets will start deteriorating at that time, hence the LCWD will need to plan for their future replacement.

#### **Alternative**

If the water system decides not to fund the annual capital reserve requirement, the system will have to come up with these amounts from other sources, or from steeper rate increases in future years. The system can't count on the future generosity of the state or other government sources to provide any substantial grants.

It will require an effort of the LCWD to obtain these grants and/or loans. The amount of grants and/or loans obtained for future projects has a very substantial impact on water rates. Therefore, this study recommends a new rate study every five years.

# 6. Budget

#### **Source**

All expenses shown in Exhibit 2 (5-Year Budget sheet) were provided by the LCWD as its 2021 approved budget.

The Capital Replacement Program amount comes from the Reserves sheet. (Exhibit 1)

The Cash Revenue shown is a calculated number based on:

- The water rates selected
- The number of paying customers
- An annual inflation factor of 2.9 percent
- A conservation factor and growth factor
- Water sales

## **Sales Adjustments**

Higher water rates cause a reduction in the quantity of water sold as customers adjust their consumption to the new rates.

| Sales adjustment over Base year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------------------------------|--------|--------|--------|--------|--------|
| Conservation Factor             | -5%    | -4%    | -3%    | -2%    | -1%    |
| Growth Factor                   | 2%     | 4%     | 6%     | 8%     | 10%    |
| Total Sales Adjustment          | -3%    | 0%     | 3%     | 6%     | 9%     |

With a change in base rate and usage rate, it can be expected that customers will conserve water after seeing their new bills. It is estimated that after having the increased rates for five years, the customers will have returned to their water use habits they had prior to the rate change.

The Lebec area is expecting some significant growth of new connections in the next five years, including some larger commercial connections and an additional subdivision. The growth factor shows the percent growth over the base year.

The LCWD does not write off any receivables. While accounts receivable has risen due to the COVID 19 pandemic, they expect most, if not all, delinquent accounts are collectible.

#### **Alternatives**

If the utility does not fund its budget by setting appropriate water rates, it does not mean that the company can't pay its bills. It simply means that the company is not providing for future replacement of the capital assets and will not be able to guarantee the continuing operation of the water system.

| The utility and the board have a fiduciary responsibility to set rates to a level where the company can continue to operate and provide clean water for the foreseeable future. |  |
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# 7. Fixed Versus Variable Expenses

Exhibit 3 shows the split between Fixed and Variable Expenses.

#### **Source**

The data comes from the Budget as shown in Exhibit 2.

## **Description**

Some expenses vary by the volume of water sold. For example, electricity costs will go up when more water is processed.

Other expenses are fixed. For example, insurance costs remain the same whether water is sold or not. Percentages are used to estimate the ratio of fixed to variable because many expenses are somewhere in between.

In Lebec's case, 88 percent of all expenses are fixed and only 12 percent are variable. It is not unusual for smaller water systems to have a high percentage of fixed costs.

### **Alternatives**

While fixed expenses should be covered by the Base Rate (the same every month), variable costs should be covered by the Usage Rate (based on the quantity sold). Should fixed costs not be recovered by the Base Rate, but by variable income (usage charges), there may be seasonal shortfalls in cash-flow of the company, and the company will have to dip into its Operating Reserves.

The split between fixed and variable expenses is not germane to the overall balancing of the Budget. It is only relevant to cover seasonal cash flows of the utility. The impact of the new rates on seasonal cash flows is shown on page 22.

# 8. Rate Calculation

## **Theoretical Base Rate Calculation**

In theory, fixed expenses should be covered by fixed income (Base Charges) and variable expenses should be covered by variable income (Usage Charges). This is accomplished by using the total fixed cost and allocating it between total customers, based on the customer's potential demand as approximated by meter size.

The theoretical base rate is calculated by determining the maximum demand for each meter according to the AWWA Safe Maximum Operating Capacity, multiplying by the number of meters by that size in the system, and determining the percentage of total fixed costs that are allocated by meter size. This calculation results in the following:

| Meter<br>Size in | Decimal<br>Size | Number<br>of<br>Meters | AWWA<br>Safe<br>Maximum<br>Operating<br>Cap.<br>(GPM) | Max<br>Demand<br>(GPM) | % Of<br>Max<br>Demand<br>by Meter<br>Size | Total Fixed Costs Allocated by Meter Size | Theoretical<br>Base Rate<br>by Meter<br>Size per M |
|------------------|-----------------|------------------------|---|------------------------|---|---|--|
| A                | В               | С                      | D   | E= D * C               | F= % of<br>total                          | G= % *<br>total                           | H=G/C/12   |
| 3/4"             | 0.750           | 270                    | 30  | 8,100                  | 68.59%                                    | \$324,902                                 | \$100.51   |
| 1"               | 1.000           | 3                      | 50  | 150                    | 1.27%                                     | \$6,017                                   | \$167.52   |
| 1.5"             | 1.500           | 3                      | 100   | 300                    | 2.54%                                     | \$12,033                                  | \$335.05   |
| 2"               | 2.000           | 11                     | 160   | 1,760                  | 14.90%                                    | \$70,596                                  | \$536.07   |
| 4"               | 4.000           | 3                      | 500   | 1,500                  | 12.70%                                    | \$60,167                                  | \$1,675.23   |

#### Notes:

- 1. Safe maximum meter capacity for 5/8" through 2" meters (column D) based on AWWA C700 displacement meters.
- 2. Safe maximum meter capacity for 3" through 8" meters based on AWWA C702 compound meters.
- 3. Safe maximum meter capacity for 10" meter based on AWWA C704 propeller type meter.

# **Base Rate Calculation - Rate Adjustment Option #1**

Because full recovery of all the fixed costs in the base rate created a rate structure the board felt would be too onerous for the community, Rate Adjustment Option #1 sets base rates at 60 percent of fixed costs. The goal was to set a Uniform Block Rate in such a way that it generates enough revenue to balance the budget.

| Meter<br>Size | Theoretical<br>Monthly<br>Base Rate by<br>Meter Size | Base Rate as<br>% of<br>Theoretical<br>Rate | Existing Base<br>Rate<br>Residential/<br>Commercial | Proposed<br>Base<br>Charge for<br>Year 1 | Year 2     | Year 3     | Year 4     | Year 5     |
|---------------|--|---|---|--|------------|------------|------------|------------|
| 0.750         | \$100.28   | 60%   | 40.01/60.02   | \$ 60.17                                 | \$ 61.52   | \$ 62.91   | \$ 64.32   | \$ 65.77   |
| 1.000         | \$167.13   | 60%   | 40.01/100.25  | \$ 100.28                                | \$ 102.54  | \$ 104.84  | \$ 107.20  | \$ 109.61  |
| 1.500         | \$334.26   | 60%   | 40.01/199.90  | \$ 200.56                                | \$ 205.07  | \$ 209.69  | \$ 214.40  | \$ 219.23  |
| 2.000         | \$534.82   | 60%   | 40.01/319.36  | \$ 320.89                                | \$ 328.11  | \$ 335.49  | \$ 343.04  | \$ 350.76  |
| 4.000         | \$1,671.31   | 60%   | 40.01/1,260.65                                      | \$1,002.78                               | \$1,025.34 | \$1,048.41 | \$1,072.00 | \$1,096.12 |

In Rate Adjustment Option #1, 60 percent of the fixed expenses are covered by the Base Rate and the remaining is funded by the Usage Charge. This would be followed by an annual increase of 2.25 percent to both the Base Rates and the Usage Charges starting the second year.

Customers with large water meters could potentially draw a substantial volume of water (see the table on page 20). Therefore, they should pay a proportional share of the fixed costs of the system.

# **Base Rate Calculation - Rate Adjustment Option #2**

Rate Adjustment Option #2 was accepted by the board. In this option, only 50 percent of fixed costs are recovered from the base rate. This would be followed by 3.8 percent annual increases to both the base and usage rates in subsequent years. In this option, full funding of reserves will not be possible in the first two years. The reserve funding will be recovered in future years so that the full amount is recovered over the five-year period.

| Meter<br>Size | Theoretical<br>Monthly<br>Base Rate by<br>Meter Size | Base Rate as<br>% of<br>Theoretical<br>Rate | Existing Base<br>Rate<br>Residential/<br>Commercial | Proposed<br>Base<br>Charge for<br>Year 1 | Year 2    | Year 3     | Year 4    | Year 5    |
|---------------|--|---|---|--|-----------|------------|-----------|-----------|
| 0.750         | \$100.28   | 50%   | 40.01/60.02   | \$ 50.26                                 | \$ 52.17  | \$ 54.15   | \$ 56.21  | \$ 58.35  |
| 1.000         | \$167.13   | 50%   | 40.01/100.25  | \$ 83.76                                 | \$ 86.94  | \$ 90.25   | \$ 93.68  | \$ 97.24  |
| 1.500         | \$334.26   | 50%   | 40.01/199.90  | \$ 167.52                                | \$ 173.89 | \$ 180.49. | \$ 187.35 | \$ 194.47 |
| 2.000         | \$534.82   | 50%   | 40.01/319.36  | \$ 268.04                                | \$ 278.23 | \$ 288.80  | \$ 299.77 | \$ 311.16 |
| 4.000         | \$1,671.31   | 50%   | 40.01/1,260.65                                      | \$837.67                                 | \$869.50  | \$ 902.54  | \$ 936.84 | \$972.44  |

In Rate Adjustment Option #2, 50 percent of the fixed expenses are covered by the Base Rate and the remaining is funded by the Usage Charge. This would be followed by an annual increase of 3.8 percent to both the Base Rates and the Usage Charges starting the second year.

Customers with large water meters could potentially draw a substantial volume of water (see the table on page 20.) Therefore, they should pay a proportional share of the fixed costs of the system

## **Usage Rate Calculation**

The usage rate for the LCWD will be converted to a uniform usage rate for residential and commercial customers, instead of the previous tiered rate structure.

For commercial users, the current usage rate is \$0.036 per 1 cubic foot (CF) for any amount used in excess of 250 CF, whereas a residential user would be charged \$0.023 per CF after 750 CF.

According to Proposition 218, the system is not allowed to have tiered rates, unless it can justify the need for a tiered rate structure (which is not possible for the LCWD). Therefore, the current tiered rate structure is recommended to convert to a uniform rate structure.

While relying heavily on the usage rate to balance the budget, it provides a little more control to the property owner by allowing them to reap the financial benefits of conserving water.

This benefit has been taken into consideration through the Conservation Factors applied to the estimated future quantities of water sold.

|                     | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------------------|--------|--------|--------|--------|--------|
| Conservation Factor | -5%    | -4%    | -3%    | -2%    | -1%    |

Based on the uniform block rate, the commercial and residential customers have the same rate and annual rate increase.

In Option #1, The new Usage Charge per one (1) CF is \$0.027 per CF for all customers.

| All Meter Sizes           | Proposed Usage Charge for Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |  |
|---------------------------|----------------------------------|--------|--------|--------|--------|--|
| Usage Rate per one (1) CF | 0.027                            | 0.028  | 0.0291 | 0.03   | 0.031  |  |

### **Seasonal Cash Flow**

By setting the Base Rate to less than the Theoretical rate, and relying on Usage charges to balance the budget, seasonal cash flow issues may appear, particularly in the event of drought restrictions.

A gradual annual increase of 3.8 percent for all rates is recommended to reduce the need for drastic rate changes in the future. This will also ensure the rates are keeping up with increasing costs within the system.

# **Estimated Profit and Loss with New Rates -Option #2**

By setting the Base Rate and the Usage Rate, the model calculates the revenue generated by this rate. It compares revenue against expenses (as shown in the Budget) and calculates the estimated profit/loss. Also, the model estimates annual contributions to the reserves. It should be noted that non-operating revenue will be necessary to fully recover operating costs and fund reserves.

| Rate Adjustment Option #2         | Year 1 |          | Year 2 |          | Year 3 |          | Year 4 |          | Year 5 |          | Five Year<br>Total |           |
|-----------------------------------|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------------------|-----------|
| Total Rates Revenue               | \$     | 428,553  | \$     | 451,050  | \$     | 474,638  | \$     | 499,367  | \$     | 525,291  | \$                 | 2,378,899 |
| Less: Uncollectable Receivables   | \$     | (429)    | \$     | (451)    | \$     | (475)    | \$     | (499)    | \$     | (525)    | \$                 | (2,379)   |
| Total Rates Revenue               | \$     | 428,124  | \$     | 450,599  | \$     | 474,163  | \$     | 498,868  | \$     | 524,766  | \$                 | 2,376,520 |
|                                   |        |          |        |          |        |          |        |          |        |          |                    |           |
| Total Operating Costs             | \$     | 464,999  | \$     | 478,949  | \$     | 493,318  | \$     | 508,117  | \$     | 523,361  | \$                 | 2,468,744 |
| Operating Reserves                | \$     | 3,300    | \$     | 3,300    | \$     | 3,300    | \$     | 3,300    | \$     | 3,300    | \$                 | 16,500    |
| Emergency Reserves                | \$     | -        | \$     | -        | \$     | -        | \$     | -        | \$     | -        | \$                 | -         |
| Debt Reserves                     | \$     | -        | \$     | -        | \$     | -        | \$     | -        | \$     | -        | \$                 | -         |
| CIP Reserves                      | \$     | 44,916   | \$     | 42,418   | \$     | 41,566   | \$     | 41,566   | \$     | 43,771   | \$                 | 214,237   |
| Total Reserves                    | \$     | 48,216   | \$     | 45,718   | \$     | 44,866   | \$     | 44,866   | \$     | 47,071   | \$                 | 230,737   |
| Total Costs                       | \$     | 513,215  | \$     | 524,667  | \$     | 538,184  | \$     | 552,983  | \$     | 570,432  | \$                 | 2,699,481 |
| Net Profit/(Loss) from Operations | \$     | (85,091) | \$     | (74,068) | \$     | (64,021) | \$     | (54,115) | \$     | (45,666) | \$                 | (322,961) |
| Non-Operating Revenue:            |        |          |        |          |        |          |        |          |        |          |                    |           |
| Late Charges                      | \$     | 9,641    | \$     | 9,930    | \$     | 10,228   | \$     | 10,535   | \$     | 10,851   | \$                 | 51,184    |
| Will Serve                        | \$     | 1,030    | \$     | 1,061    | \$     | 1,093    | \$     | 1,125    | \$     | 1,159    | \$                 | 5,468     |
| Bulk Sales                        | \$     | 22,660   | \$     | 23,340   | \$     | 24,040   | \$     | 24,761   | \$     | 25,504   | \$                 | 120,305   |
| Property Taxes                    | \$     | 47,844   | \$     | 49,279   | \$     | 50,757   | \$     | 52,280   | \$     | 53,848   | \$                 | 254,008   |
| Total Non-Operating Revenue       | \$     | 81,174   | \$     | 83,609   | \$     | 86,118   | \$     | 88,701   | \$     | 91,362   | \$                 | 430,965   |
| Net Profit/(Loss)                 | \$     | (3,916)  | \$     | 9,541    | \$     | 22,097   | \$     | 34,586   | \$     | 45,696   | \$                 | 108,004   |
| Amount Available to Fund Reserves | \$     | 44,300   | \$     | 55,259   | \$     | 66,963   | \$     | 79,452   | \$     | 92,767   | \$                 | 338,741   |

A negative red number means the rates were not raised enough to generate income that covers all expenses and reserve requirements. A positive number means rates did cover all expenses, including reserves. The table above shows that the proposed rates balance the budget and allow for reserve account funding.

## **Affordability Index**

|                     |          | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------------------|----------|--------|--------|--------|--------|--------|
| Affordability Index |          |        |        |        |        |        |
| MHI of              | \$43,594 | 2.35%  | 2.47%  | 2.80%  | 2.73%  | 2.87%  |

The median household income of the LCWD's service area (from American Community Survey estimates for 2019) is \$43,594. The "affordability index" was calculated by dividing the average annual water bill of all residences by the MHI.

Any number below 4 percent is considered "affordable" and any number below 1.5 percent is considered too low, and any replacement project may not be eligible for certain grants.

The proposed rates fall within the affordability range despite the proposed increases.



#### Impacts of the Rate Adjustment Option #2

- Expenses (darker blue bar) show a slight increase each year due to inflation.
- Revenue (red bar) climbs each year starting the first year as the LCWD continues to contribute a fixed revenue to the existing CRP for asset replacement.
- Contributions to reserves (green bar) show a healthy contribution to capital reserves.
- Charges to Reserves (purple bar) are the replacement costs of certain assets, according to the CRP.

• The Reserve Balance<sup>4</sup> (light blue bar) is the amount available to replace the system in future years. The reserve balance shows an increase in reserve balance due to continuous contributions to reserves.

The purple bars indicate the need to dip into your reserves. They are a good indication of the maturities of the investments of your CRP.

A new rate study should be conducted in five years or when a grant or loan is obtained.

<sup>&</sup>lt;sup>4</sup> Total Reserves (Capital Replacement Reserves, Emergency Reserves, Debt Reserves, etc.)

# **Estimated monthly bill - Rate Adjustment Option #2**

# **Average Monthly Bill by Meter Size**

| Meter<br>Size | Meter<br>Size | Current    | Year 1     | Year 2     | Year 3     | Year 4     | Year 5     |
|---------------|---------------|------------|------------|------------|------------|------------|------------|
| 0.750         | 3/4"          | \$57.62    | \$83.26    | \$86.78    | \$90.45    | \$94.28    | \$98.26    |
| 1.000         | 1"            | \$190.73   | \$153.95   | \$160.57   | \$167.46   | \$174.64   | \$182.13   |
| 1.500         | 1.5"          | \$268.37   | \$220.36   | \$229.31   | \$238.62   | \$248.31   | \$258.39   |
| 2.000         | 2"            | \$499.78   | \$403.28   | \$420.07   | \$437.56   | \$455.77   | \$474.74   |
| 4.000         | 4"            | \$4,137.04 | \$2,904.11 | \$3,036.93 | \$3,175.64 | \$3,320.52 | \$3,471.82 |

The current LCWD rate structure inadvertently results in commercial rate payers supplementing the rates of residential rate payers, which is not allowable under Proposition 218. As shown in the above table, residential customers will see an increase in their monthly billing with the adoption of a new uniform rate model. However, commercial users will see a slight dip in their monthly bill in the first few years after implementation.

# 9. Proposition 218

California approved Proposition 218 in 1996 requiring agencies to adopt property fees and charges in accordance with a defined public process found in article XIII D or by associated court decision. Water and water rates are user fees under the definition and must meet the following requirements:

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

Written notice should be given to both the record owners and customers within the area subject to the fee or charge. The notice shall include the following:

- The formula or schedule of charges by which the property owner or customer can easily calculate their own potential charge.
- The basis upon which the amount of the proposed fee or charge is to be imposed on each parcel. An explanation of the costs which the proposed fee will cover and how the costs are allocated among property owners.
- Date, time, and location of a public hearing on the rate adjustment. The public hearing must occur 45 or more days after the mailing of the notice.

California's Proposition 218 provides that a customer of LCWD or owner of record of a parcel or parcels subject to the proposed rate increases may submit a protest against any or all of the proposed rate increases by filing a written protest with LCWD at or before the time the public hearing has concluded. Only one protest per parcel is counted. If written protests are filed by a majority of the affected parcels, the proposed rate increases will not be imposed.

# 10. Exhibits

- 1. Capital Replacement Program
- 2. 5-Year Forecasted Budget
- 3. Fixed vs Variable Expenses
- 4. Prop 1 Text
- 5. Sample Public Notice