

# KINNELOA IRRIGATION DISTRICT

Regular Meeting – Board of Directors  
1999 Kinclair Drive, Pasadena, CA 91107  
Tuesday, August 20, 2019  
3:00 P.M.

## AGENDA

1. **CALL TO ORDER** – 3:00 P.M.
  - a. Declaration of a quorum
  - b. Review of agenda
2. **PUBLIC COMMENT** – Comments from the Public regarding items on the Agenda or other items within the jurisdiction of the District  
In compliance with the Brown Act, the Board cannot discuss or act on items not on the Agenda. However, Board Members or District Staff may acknowledge Public comments, briefly respond to statements or questions posed by the Public, ask a question for clarification, or request Staff to place item on a future Agenda (Government Code section §54954.2)
3. **REVIEW OF MINUTES** – July 16, 2019 minutes  
*Recommended Action: Review and approve motion to file*
4. **REVIEW OF FINANCIAL REPORTS** – July 31, 2019 financial reports  
*Recommended Action: Review and approve motion to file*
5. **GENERAL MANAGER’S REPORT** – Information item presented by General Manager  
*Recommended Action: General Manager to summarize the report and respond to questions*
6. **BUDGET FOR 2020** – General Manager to present first draft of 2020 budget  
*Recommended Action: General Manager to summarize the draft and respond to questions*
7. **INFORMATION ITEM** – Demonstration of intelligent water usage sensor and leak detection device  
*Recommended Action: General Manager to respond to questions*
8. **DIRECTOR REPORTS AND/OR COMMENTS** – In accordance with Government Code §54954.2 Directors may make brief announcements or brief reports on their own activities. Directors may ask a question for clarification, provide a reference to staff or other resources for information, request staff to report back to the Directors at a subsequent meeting, or act to direct staff to place a matter of business on a future agenda.
9. **CALENDAR** – September 17, 2019  
October 15, 2019  
November 19, 2019

## 10. ADJOURNMENT

In compliance with the Americans with Disabilities Act, if you are a disabled person and need a disability-related modification or accommodation to participate in this meeting, please contact the District office 48 hours prior to the meeting at 626-797-6295. Each item on the agenda, no matter how described, shall be deemed to include any appropriate motion, whether to adopt a minute motion, resolution, payment of any bill, approval of any matter or action, or any other action. Material related to an item on this agenda submitted after distribution of the agenda packet is available for public review at the District office or online at the District’s website <https://kinneloairrigationdistrict.info>.

**KINNELOA IRRIGATION DISTRICT**  
**Regular Meeting – Board of Directors**  
**1999 Kinclair Drive, Pasadena, CA 91107**  
**Tuesday, July 16, 2019**  
**3:00 p.m.**  
**Minutes**

**DIRECTORS PRESENT:** Tim Eldridge, Frank Griffith, Gerrie Kilburn, Bill Opel

**DIRECTORS ABSENT:** Gordon Johnson

**STAFF PRESENT:** General Manager Melvin Matthews, Sr. Facilities Operator Chris Burt,  
Office Manager/Board Secretary Bernadette Allen

**1. CALL TO ORDER:** Secretary Tim Eldridge called the meeting to order at 3:00 p.m. A quorum of Board Members was present. The Agenda was reviewed and no changes were requested.

**2. PUBLIC COMMENT:** District resident Linda Szerdahelyi was present. No public comments.

**3. REVIEW OF MINUTES:** Director Griffith requested the following edits to the June 18, 2019, minutes: Item 4, edit to include the name following the title to read “Dr. Dave Moritz”; Item 5, edit the 6<sup>th</sup> sentence to end “...made more frequently and increased.”; Item 3, 5<sup>th</sup> sentence correct the word “page” to “pages”; Item 3, 3<sup>rd</sup> line from the bottom of the page, add the meaning of the acronym PEPRA, to read “PEPRA (Public Employees’ Pension Reform Act)”. It was motioned/seconded/carried unanimously-(Griffith/Kilburn-4/0).

**“That the Board approve the minutes as corrected for filing and posting on the website.”**

**4. REVIEW OF FINANCIAL REPORTS:** Director/Treasurer Bill Opel reviewed, out of order, Item 5.V.B Financial Statements and Independent Auditors’ Report for the Years Ended December 31, 2018 and 2017. He highlighted the staff corrections made on audit report page 1 (Agenda Packet Item 5 – Page 9). He directed the Board’s attention to page 10 (Agenda Packet Item 5 – page 18), and the similarity between the years 2017 and 2018 and he recommended that the Board read the Pension Plan Notes beginning on page 18 (Agenda Packet Item 5 – Page 26). Director Opel reviewed the June 30, 2019, financial reports. He highlighted revenue water sales which were right on budget for the month but still behind on revenue year to date. For Cash Flow, the net increase was nearly \$26,000 positive for the month which brought the District back into positive territory.

It was motioned/seconded/carried unanimously-(Kilburn/Griffith-4/0).

**“That the Board approve the financial reports for filing as presented.”**

**5. GENERAL MANAGER’S REPORT:** The General Manager and Board reviewed the report.

**II.C. 2020 Budget:** Preliminary budget will be presented at the August 20<sup>th</sup> meeting.

**IV. Water Supply Summary:** The final statistics for the Watermaster Year will be in the August General Manager’s report. The strategy is to carry over as much water as allowed without losing the rights to it and to provide a cushion in the event of high demand combined with a low rainfall year.

**V.A. Water Samples and Test Results:** Director Opel asked if the sample results from the lab are a number or only the description <MCL. The Sr. Facilities Operator replied that the results

**KINNELOA IRRIGATION DISTRICT**  
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**Minutes**

are a number. Director Opel inquired if it is possible to determine a trend in nitrate levels. Director Eldridge asked if it possible to add the result numbers to the report. The General Manager said he will review the nitrate results and determine if it is possible to add result numbers to the report.

**II.D. Activities/Meetings/Webinars/Conferences:** Director Griffith asked about the MWD tour of the Regional Recycled Water Advanced Purification Center. The General Manager stated that the recycled water may be of benefit for the District as a source of aquifer recharge, which is the purpose of the Carson facility. Currently, pipelines are proposed up to the San Gabriel main basin.

**6. INFORMATION ITEM:** The General Manager stated that the memo in the packet was included as a result of the discussion on CalPERS at the June meeting. Director Opel asked the Board to turn to page 22 of the Financial Audit Report (Agenda Packet Item 5 – page 30) and restated that the auditor had said that CalPERS has never met its target return rate. He added that the proportionate pension liability is \$271,000 per year. The General Manager stated that the amount is not per year; it is the total liability. Director Opel asked if page 9 of the Audit Report (Agenda Packet Item 5 – page 17) includes the pension liability in the balance sheet. The General Manager said yes, it is listed as the net pension liability \$271,329 which is the same amount in the note on page 22 (Agenda Packet Item 5 – page 30). Director Eldridge asked if the liability is only for the District's employees. The General Manager stated the District is liable for the contract employees that retire from the District. Director Opel added that the District also shares in the pool obligations even if there are no past employees or additional employees. The General Manager concurred. The General Manager concluded with the statement that not everyone agrees that CalPERS is in peril and will fail. There are differences of opinion on CalPERS stability.

**7. DIRECTOR REPORTS AND/OR COMMENTS:** There were no reports and no comments.

**8. CALENDAR:** The next regular meeting will be at 3:00 p.m. on Tuesday, August 20, 2019.

**10. ADJOURNMENT:** The meeting was adjourned at 3:52 p.m.

Respectfully submitted by,



Bernadette C. Allen  
Board Secretary

**Kinneloa Irrigation District**  
**Income Statement for the Seven Months Ending July 31, 2019**

|                                      | Current Month<br>Actual | Current Month<br>Budget | Current Month<br>Variance | Year to Date<br>Actual | Year to Date<br>Budget | Year to Date<br>Variance |
|--------------------------------------|-------------------------|-------------------------|---------------------------|------------------------|------------------------|--------------------------|
| <b>Revenues</b>                      |                         |                         |                           |                        |                        |                          |
| 4000 Water Sales                     | 151,009.89              | 150,000.00              | 1,009.89                  | 791,738.26             | 861,000.00             | (69,261.74)              |
| 4015 Wholesale Water Sales           | 0.00                    | 0.00                    | 0.00                      | 27,003.03              | 0.00                   | 27,003.03                |
| 4020 Service/Installation Charges    | 608.27                  | 833.33                  | (225.06)                  | 6,543.12               | 5,833.31               | 709.81                   |
| 4035 Interest-Reserve Fund           | 3,634.56                | 1,250.00                | 2,384.56                  | 29,766.39              | 8,750.00               | 21,016.39                |
| 4070 Misc. Income                    | 0.00                    | 0.00                    | 0.00                      | 5,969.27               | 0.00                   | 5,969.27                 |
| <b>Total Revenues</b>                | <b>155,252.72</b>       | <b>152,083.33</b>       | <b>3,169.39</b>           | <b>861,020.07</b>      | <b>875,583.31</b>      | <b>(14,563.24)</b>       |
| <b>Expenses</b>                      |                         |                         |                           |                        |                        |                          |
| 5005 Electricity                     | 6,592.91                | 10,000.00               | (3,407.09)                | 55,318.63              | 68,000.00              | (12,681.37)              |
| 5010 Maintenance/Repair Supplies     | 2,860.62                | 2,083.33                | 777.29                    | 24,644.88              | 14,583.31              | 10,061.57                |
| 5011 Material and Labor for Install  | 0.00                    | 833.33                  | (833.33)                  | 0.00                   | 5,833.31               | (5,833.31)               |
| 5012 Safety Equipment                | 191.57                  | 133.33                  | 58.24                     | 1,494.48               | 933.31                 | 561.17                   |
| 5015 Operations Labor                | 17,113.08               | 16,533.33               | 579.75                    | 110,826.83             | 115,733.31             | (4,906.48)               |
| 5016 Operations OT                   | 561.06                  | 750.00                  | (188.94)                  | 8,858.02               | 5,250.00               | 3,608.02                 |
| 5020 Stand-by Compensation           | 930.00                  | 912.50                  | 17.50                     | 6,030.00               | 6,387.50               | (357.50)                 |
| 5022 Training/Certification          | 90.00                   | 133.33                  | (43.33)                   | 230.00                 | 933.31                 | (703.31)                 |
| 5025 Water Treatment/Analysis        | 1,158.85                | 1,833.33                | (674.48)                  | 12,261.21              | 12,833.31              | (572.10)                 |
| 5030 Maintenance/Repair Contractors  | 14,273.18               | 10,416.67               | 3,856.51                  | 95,980.42              | 72,916.69              | 23,063.73                |
| 5034 Equipment Maintenance           | 0.00                    | 1,041.67                | (1,041.67)                | 11,024.03              | 7,291.69               | 3,732.34                 |
| 5035 Vehicle Maintenance             | 1,420.43                | 833.33                  | 587.10                    | 6,449.31               | 5,833.31               | 616.00                   |
| 5036 Fuel                            | 863.85                  | 1,250.00                | (386.15)                  | 8,829.98               | 8,750.00               | 79.98                    |
| 5045 Insurance-Workers Compensation  | 0.00                    | 0.00                    | 0.00                      | 14,363.70              | 6,670.00               | 7,693.70                 |
| 5046 Insurance-Liability             | 1,211.17                | 1,333.33                | (122.16)                  | 8,478.19               | 9,333.31               | (855.12)                 |
| 5048 Insurance-Property              | 171.83                  | 208.33                  | (36.50)                   | 605.33                 | 1,458.31               | (852.98)                 |
| 5049 Insurance-Medical               | 7,374.80                | 6,375.00                | 999.80                    | 47,202.74              | 44,625.00              | 2,577.74                 |
| 6000 Engineering Services            | 0.00                    | 3,958.33                | (3,958.33)                | 10,911.50              | 27,708.31              | (16,796.81)              |
| 6005 Watermaster Services            | 880.33                  | 1,000.00                | (119.67)                  | 6,165.35               | 7,000.00               | (834.65)                 |
| 6015 Administrative Salary           | 11,489.02               | 12,333.33               | (844.31)                  | 80,423.14              | 86,333.31              | (5,910.17)               |
| 6017 Administrative Travel           | 28.20                   | 250.00                  | (221.80)                  | 610.98                 | 1,750.00               | (1,139.02)               |
| 6020 Board Compensation              | 400.00                  | 466.67                  | (66.67)                   | 2,900.00               | 3,266.69               | (366.69)                 |
| 6021 Administrative & Board Expenses | 0.00                    | 83.33                   | (83.33)                   | 0.00                   | 583.31                 | (583.31)                 |
| 6024 Customer/Public Info. Prog.     | 33.07                   | 166.67                  | (133.60)                  | 33.07                  | 1,166.69               | (1,133.62)               |
| 6025 PERS - KID                      | 2,917.65                | 3,000.00                | (82.35)                   | 17,766.28              | 21,000.00              | (3,233.72)               |
| 6030 Social Security - KID           | 2,403.82                | 2,416.67                | (12.85)                   | 15,614.79              | 16,916.69              | (1,301.90)               |
| 6031 Medicare - KID                  | 562.19                  | 516.67                  | 45.52                     | 3,651.92               | 3,616.69               | 35.23                    |
| 6035 Office/Computer Supplies        | 298.12                  | 583.33                  | (285.21)                  | 4,742.65               | 4,083.31               | 659.34                   |
| 6036 Postage/Delivery                | 496.80                  | 416.67                  | 80.13                     | 2,430.64               | 2,916.69               | (486.05)                 |
| 6040 Professional Dues               | 1,153.33                | 1,000.00                | 153.33                    | 8,213.33               | 7,000.00               | 1,213.33                 |
| 6045 Legal Services                  | 0.00                    | 1,250.00                | (1,250.00)                | 5,633.97               | 8,750.00               | (3,116.03)               |
| 6050 Telephone                       | 361.42                  | 375.00                  | (13.58)                   | 2,533.36               | 2,625.00               | (91.64)                  |
| 6051 Mobile Telephone                | 48.44                   | 125.00                  | (76.56)                   | 655.49                 | 875.00                 | (219.51)                 |
| 6052 Pagers                          | 34.71                   | 41.67                   | (6.96)                    | 278.06                 | 291.69                 | (13.63)                  |
| 6053 Internet Service                | 59.99                   | 83.33                   | (23.34)                   | 443.81                 | 583.31                 | (139.50)                 |
| 6059 Computer Software Maintenance   | 353.75                  | 1,000.00                | (646.25)                  | 4,189.97               | 7,000.00               | (2,810.03)               |

**Kinneloa Irrigation District**  
**Income Statement for the Seven Months Ending July 31, 2019**

|                                     | Current Month<br>Actual | Current Month<br>Budget | Current Month<br>Variance | Year to Date<br>Actual | Year to Date<br>Budget | Year to Date<br>Variance |
|-------------------------------------|-------------------------|-------------------------|---------------------------|------------------------|------------------------|--------------------------|
| 6061 Office Equipment Maintenance   | 0.00                    | 83.33                   | (83.33)                   | 361.34                 | 583.31                 | (221.97)                 |
| 6065 Accounting Services            | 0.00                    | 0.00                    | 0.00                      | 6,400.00               | 7,000.00               | (600.00)                 |
| 6070 Office & Accounting Labor      | 9,219.50                | 8,045.83                | 1,173.67                  | 48,617.75              | 56,320.81              | (7,703.06)               |
| 6075 Professional/Contract Services | 2,021.39                | 2,333.33                | (311.94)                  | 19,941.88              | 16,333.31              | 3,608.57                 |
| 6080 Administrative Fees            | 795.83                  | 750.00                  | 45.83                     | 5,483.70               | 5,250.00               | 233.70                   |
| 6081 Permits/Fees                   | 1,994.64                | 1,250.00                | 744.64                    | 4,507.59               | 8,750.00               | (4,242.41)               |
| 6086 Taxes - Sales                  | 0.00                    | 0.00                    | 0.00                      | 38.90                  | 500.00                 | (461.10)                 |
| 6088 Interest Expense               | 0.00                    | 0.00                    | 0.00                      | 33,914.74              | 33,915.00              | (0.26)                   |
| 6120 Bank Service Charges           | 671.78                  | 541.67                  | 130.11                    | 4,071.07               | 3,791.69               | 279.38                   |
| <b>Total Expenses</b>               | <b>91,037.33</b>        | <b>96,741.64</b>        | <b>(5,704.31)</b>         | <b>703,133.03</b>      | <b>723,276.48</b>      | <b>(20,143.45)</b>       |
| <b>Net Income</b>                   | <b>64,215.39</b>        | <b>55,341.69</b>        | <b>8,873.70</b>           | <b>157,887.04</b>      | <b>152,306.83</b>      | <b>5,580.21</b>          |
| <b>Other Expenditures</b>           |                         |                         |                           |                        |                        |                          |
| 1511 Water/Treatment Plant          | 0.00                    | 0.00                    | 0.00                      | 1,750.80               | 2,000.00               | (249.20)                 |
| 1514 Computer/Office Equipment      | 716.49                  | 1,000.00                | (283.51)                  | 716.49                 | 1,000.00               | (283.51)                 |
| 1527 SCADA Equipment                | 0.00                    | 0.00                    | 0.00                      | 42,260.42              | 51,000.00              | (8,739.58)               |
| 2400 Installment Purchase Agreement | 0.00                    | 0.00                    | 0.00                      | 66,186.24              | 66,186.00              | 0.24                     |
| <b>Total Other Expenditures</b>     | <b>716.49</b>           | <b>1,000.00</b>         | <b>(283.51)</b>           | <b>110,913.95</b>      | <b>120,186.00</b>      | <b>(9,272.05)</b>        |
| <b>Total Increase or (Drawdown)</b> | <b>63,498.90</b>        | <b>54,341.69</b>        | <b>9,157.21</b>           | <b>46,973.09</b>       | <b>32,120.83</b>       | <b>14,852.26</b>         |

## Kinneloa Irrigation District Balance Sheet as of July 31, 2019

### ASSETS

#### Current Assets

|      |                                |               |
|------|--------------------------------|---------------|
| 1010 | Checking-Wells Fargo Bank      | \$ 263,409.76 |
| 1012 | Reserve Fund-LAIF              | 124,854.33    |
| 1014 | Reserve Fund-CalTRUST          | 1,700,617.42  |
| 1015 | Unrealized Gain(Loss)-CalTRUST | (8,427.48)    |
| 1016 | Accrued Interest-LAIF          | 187.65        |
| 1100 | Accts. Receivable-Water Sales  | 39,420.01     |
| 1113 | Employee Loans                 | 2,007.48      |
| 1190 | Allowance for Bad Debts        | (771.48)      |
| 1200 | Inventory                      | 20,000.00     |
| 1340 | Accrued Water Sales            | 152,554.49    |
| 1350 | Prepaid Insurance              | 2,698.97      |
| 1360 | Prepaid Expenses               | 29,120.64     |

Total Current Assets

2,325,671.79

#### Property and Equipment

|      |                               |                |
|------|-------------------------------|----------------|
| 1501 | Water Rights                  | 52,060.41      |
| 1503 | Land Sites                    | 96,700.08      |
| 1504 | Water Mains                   | 3,584,517.77   |
| 1505 | Water Tunnels                 | 729,074.60     |
| 1506 | K-3 Well                      | 89,543.06      |
| 1507 | Improvement District #1       | 602,778.12     |
| 1508 | Mountain Property             | 6,620.00       |
| 1509 | Wilcox Well/Wilcox Booster    | 94,030.98      |
| 1510 | Interconnections              | 14,203.27      |
| 1511 | Water Treatment Plant         | 189,139.08     |
| 1512 | Water Meters                  | 104,486.33     |
| 1513 | Electrical/Electronic Equip.  | 256,918.72     |
| 1514 | Computer/Office Equipment     | 75,922.12      |
| 1515 | Vehicles & Portable Equipment | 242,548.91     |
| 1516 | Water Company Facilities      | 70,422.20      |
| 1517 | KID Office                    | 54,741.36      |
| 1518 | Shaw Ranch                    | 280,789.92     |
| 1519 | Dove Creek Project            | 487,383.87     |
| 1520 | Glen Reservoir/Booster        | 24,190.86      |
| 1521 | Kinneloa Ridge Project        | 690,492.58     |
| 1522 | Eucalyptus Booster Station    | 532,342.43     |
| 1526 | Vosburg Booster               | 1,647,215.66   |
| 1527 | SCADA Equipment               | 350,158.34     |
| 1528 | Tanks and Reservoirs          | 119,491.90     |
| 1529 | Holly Tanks                   | 181,113.76     |
| 1530 | Tools                         | 6,273.13       |
| 1600 | Accum. Depreciation           | (4,926,201.76) |

Total Property and Equipment

5,656,957.70

#### Other Assets

|      |                        |           |
|------|------------------------|-----------|
| 1901 | PERS-Deferred Outflows | 99,141.00 |
|------|------------------------|-----------|

Total Assets

\$ 8,081,770.49

**Kinneloa Irrigation District**  
**Balance Sheet as of July 31, 2019**

**LIABILITIES AND CAPITAL**

**Current Liabilities**

|      |                           |              |           |
|------|---------------------------|--------------|-----------|
| 2000 | Accounts Payable          | \$ 22,466.60 |           |
| 2250 | PERS Withholding-Employee | (40.48)      |           |
| 2272 | Job Deposits              | 900.00       |           |
| 2275 | Deposits-Water Customers  | 255.02       |           |
| 2290 | Accrued Vacation          | 19,935.60    |           |
|      |                           |              |           |
|      | Total Current Liabilities |              | 43,516.74 |

**Long-Term Liabilities**

|      |                                |              |              |
|------|--------------------------------|--------------|--------------|
| 2400 | Installment Purchase Agreement | 1,802,291.11 |              |
| 2801 | PERS- Net Liability            | 263,098.21   |              |
| 2901 | PERS- Deferred Inflows         | 36,648.00    |              |
|      |                                |              |              |
|      | Total Long-Term Liabilities    |              | 2,102,037.32 |
|      | Total Liabilities              |              | 2,145,554.06 |

**Capital**

|      |                             |              |                 |
|------|-----------------------------|--------------|-----------------|
| 3040 | Fund Balance                | 5,778,329.39 |                 |
|      | Net Income                  | 157,887.04   |                 |
|      |                             |              |                 |
|      | Total Capital               |              | 5,936,216.43    |
|      | Total Liabilities & Capital |              | \$ 8,081,770.49 |

**Kinneloa Irrigation District**  
**Statement of Cash Flow**  
**For the Seven Months Ended July 31, 2019**

|   | Current Month       | Year to Date        |
|---|---------------------|---------------------|
| <b>Cash Flows from Operating Activities</b>   |                     |                     |
| Net Income  | \$ 64,215.39        | \$ 157,887.04       |
| <i>Adjustments to reconcile net income to net cash provided by operating activities</i> |                     |                     |
| 1100 Accts. Receivable-Water Sales  | (5,657.17)          | 10,621.16           |
| 1101 Accts. Receiv.-Service Charges   | 0.00                | 263.84              |
| 1113 Employee Loans   | (2,007.48)          | (2,007.48)          |
| 1340 Accrued Water Sales  | (6,753.24)          | (17,892.21)         |
| 1350 Prepaid Insurance  | 1,383.00            | 7,021.51            |
| 1360 Prepaid Expenses   | (13,617.84)         | (7,675.82)          |
| 2000 Accounts Payable   | (23,862.36)         | (12,777.70)         |
| 2250 PERS Withholding-Employee  | (40.48)             | (40.48)             |
|   | (50,555.57)         | (22,487.18)         |
| <b>Net Cash Provided by Operations</b>  | <b>13,659.82</b>    | <b>135,399.86</b>   |
| <br><b>Cash Flows from Investing Activities</b>   |                     |                     |
| <i>Used for</i>   |                     |                     |
| 1511 WaterTreatment Plant   | 0.00                | (1,750.80)          |
| 1514 Computer/Office Equipment  | (716.49)            | (716.49)            |
| 1527 SCADA Equipment  | 0.00                | (42,265.68)         |
|   | (716.49)            | (44,732.97)         |
| <br><b>Cash Flows from Financing Activities</b>   |                     |                     |
| <i>Proceeds from</i>  |                     |                     |
| <i>Used for</i>   |                     |                     |
| 2400 Installment Purchase Agreement   | 0.00                | (66,186.24)         |
| 2801 PERS- Net Liability  | (1,436.25)          | (8,230.53)          |
|   | (1,436.25)          | (74,416.77)         |
| <b>Net Increase (Decrease) in Cash</b>  | <b>\$ 11,507.08</b> | <b>\$ 16,250.12</b> |
| <br><b>Summary</b>  |                     |                     |
| Cash Balance at End of Period   | \$ 2,080,641.68     | \$ 2,080,641.68     |
| Cash Balance at Beg. of Period  | (2,069,134.60)      | (2,064,386.30)      |
| <b>Net Increase (Decrease) in Cash</b>  | <b>\$ 11,507.08</b> | <b>\$ 16,255.38</b> |



**Kinneloa Irrigation District**  
**Check Register**  
**For the Period from July 1, 2019 to July 31, 2019**

| <b>Date</b> | <b>Check #</b> | <b>Payee</b>                      | <b>Amount</b> | <b>Description</b>                                |
|-------------|----------------|-----------------------------------|---------------|---|
| 7/8/19      | EFT3945        | CA Public Employees Ret. Sys.     | 4,807.57      | CalPERS June KID & employee contributions         |
| 7/8/19      | EFT3946        | Century Business Solutions        | 195.33        | credit card processing fee                        |
| 7/8/19      | 9136           | ACWA/JPIA                         | 2,062.01      | property insurance 2019-2020                      |
| 7/8/19      | 9137           | ACWA/JPIA                         | 4,812.74      | workers' comp 04/01/19-06/30/19                   |
| 7/8/19      | 9142*          | ACWA/JPIA                         | 8,316.32      | employee health benefits                          |
| 7/8/19      | 9143           | Bernadette Allen                  | 35.67         | mileage reimbursement                             |
| 7/8/19      | 9144           | AmeriPride Services               | 78.40         | shop rag service                                  |
| 7/8/19      | 9145           | American Water Works Assoc.       | 433.00        | membership dues 2019-2020                         |
| 7/8/19      | 9146           | BrightView Landscape Services     | 1,490.00      | landscaping                                       |
| 7/8/19      | 9147           | Joel Bundy                        | 51.85         | mileage reimbursement                             |
| 7/8/19      | 9148           | Clinical Laboratory, SB           | 24.00         | water sample analysis                             |
| 7/8/19      | 9149           | Dig Safe Board                    | 16.81         | California state fee for regulatory costs         |
| 7/8/19      | 9150           | Egan & Egan                       | 6,400.00      | annual audit                                      |
| 7/8/19      | 9151           | Eurofins Eaton Analytical, Inc.   | 211.20        | water sample analysis                             |
| 7/8/19      | 9152           | Hill Brothers Chemical Co.        | 279.44        | sodium hypochlorite                               |
| 7/8/19      | 9153           | Matt Chlor Inc.                   | 2,049.07      | maintenance supplies & parts                      |
| 7/8/19      | 9154           | Melvin L. Matthews                | 155.44        | mileage reimbursement                             |
| 7/8/19      | 9155           | Paul Roberts                      | 360.00        | septic tank service                               |
| 7/8/19      | 9156           | Underground Service Alert         | 33.10         | digalert  |
| 7/8/19      | 9157           | Utility Service Co., Inc.         | 4,877.18      | tank maintenance agreement                        |
| 7/15/19     | EFT3947        | Bernadette C. Allen               | 1,536.78      | salary  |
| 7/15/19     | EFT3948        | Joel D. Bundy                     | 1,522.43      | salary  |
| 7/15/19     | EFT3949        | Christopher A. Burt               | 2,843.65      | salary  |
| 7/15/19     | EFT3950        | Brian L. Fry                      | 1,742.33      | salary  |
| 7/15/19     | EFT3951        | Melvin L. Matthews                | 3,712.24      | salary  |
| 7/15/19     | EFT3952        | Juan R. Tello                     | 1,643.45      | salary  |
| 7/15/19     | EFT3953        | Christopher A. Burt               | 150.00        | salary  |
| 7/15/19     | EFT3954        | Automatic Data Processing, Inc.   | 5,577.69      | payroll taxes and withholdings                    |
| 7/16/19     | EFT3955        | Automatic Data Processing, Inc.   | 97.02         | payroll processing fees                           |
| 7/16/19     | EFT3956        | Arco Gaspro Plus                  | 863.85        | fuel for trucks                                   |
| 7/16/19     | EFT3957        | CA Public Employees Ret. Sys.     | 17,235.00     | annual unfunded accrued liability prepayment      |
| 7/16/19     | EFT3958        | Century Business Solutions        | 15.00         | banking service fee                               |
| 7/16/19     | EFT3959        | Pasadena Municipal Services       | 1,528.44      | electricity for Wilcox Well                       |
| 7/16/19     | EFT3960        | Southern California Edison Co.    | 11,751.96     | electricity Apr 1 site, May 5 sites, Jun 10 sites |
| 7/16/19     | EFT3961        | Charter Communications            | 346.69        | phone and internet                                |
| 7/16/19     | EFT3962        | VeriCheck, Inc.                   | 61.48         | echeck processing fee                             |
| 7/16/19     | 9158           | Aqua Video Engineering            | 8,250.00      | clean and inspect reservoirs Eucalyptus, Wilcox   |
| 7/16/19     | 9159           | Calif. Utility Emergency Assoc.   | 500.00        | CUEA annual membership dues                       |
| 7/16/19     | 9160           | Eurofins Eaton Analytical, Inc.   | 132.00        | water sample analysis                             |
| 7/16/19     | 9161           | Foothill Municipal Water District | 795.83        | administrative fee                                |
| 7/16/19     | 9162           | Lagerlof, Senecal, Gosney & Kruse | 877.00        | general matters                                   |

**Kinneloa Irrigation District**  
**Check Register**  
**For the Period from July 1, 2019 to July 31, 2019**

| <b>Date</b>  | <b>Check #</b> | <b>Payee</b>                      | <b>Amount</b>            | <b>Description</b>                           |
|--------------|----------------|-----------------------------------|--------------------------|--|
| 7/16/19      | 9163           | McMaster Carr                     | 638.40                   | cooling fan filters and maintenance supplies |
| 7/16/19      | 9164           | SWRCB-DWOCP                       | 90.00                    | distribution operator certification renewal  |
| 7/31/19      | EFT3963        | Automatic Data Processing, Inc.   | 87.58                    | payroll processing fees                      |
| 7/31/19      | EFT3964        | American Messaging Services       | 34.71                    | pager service                                |
| 7/31/19      | EFT3965        | AT&T Mobility                     | 2,982.80                 | mobile phone service                         |
| 7/31/19      | EFT3966        | Athens Services                   | 215.69                   | trash pickup                                 |
| 7/31/19      | EFT3967        | Umpqua Bank                       | 5,387.48                 | credit card - see attached detail            |
| 7/31/19      | EFT3968        | VOID                              |                          | EFT3967 descriptions overprinted check       |
| 7/31/19      | 9165           | AmeriPride Services               | 78.40                    | shop rag service                             |
| 7/31/19      | 9166           | South Coast AQMD                  | 421.02                   | annual renewal fees Wilcox Resv              |
| 7/31/19      | 9167           | South Coast AQMD                  | 421.02                   | annual renewal fees Eucalyptus Resv          |
| 7/31/19      | 9168           | South Coast AQMD                  | 136.40                   | emissions fees Wilcox Resv                   |
| 7/31/19      | 9169           | South Coast AQMD                  | 136.40                   | emissions fees Eucalyptus Resv               |
| 7/31/19      | 9170           | Clinical Laboratory, SB           | 24.00                    | water sample analysis                        |
| 7/31/19      | 9171           | LA County Auditor-Controller      | 569.49                   | LAFCO fees                                   |
| 7/31/19      | 9172           | Eurofins Eaton Analytical, Inc.   | 105.60                   | water sample analysis                        |
| 7/31/19      | 9173           | McMaster Carr                     | 1,334.21                 | maintenance supplies & parts                 |
| 7/31/19      | 9174           | One Call Now                      | 33.07                    | customer notification service                |
| 7/31/19      | 9175           | Ultimate Cleaning Solutions, Inc. | 75.00                    | janitorial services                          |
| 7/31/19      | EFT3969        | Bernadette C. Allen               | 1,658.63                 | salary                                       |
| 7/31/19      | EFT3970        | Joel D. Bundy                     | 1,628.62                 | salary                                       |
| 7/31/19      | EFT3971        | Christopher A. Burt               | 2,725.96                 | salary                                       |
| 7/31/19      | EFT3972        | Timothy J. Eldridge               | 92.35                    | salary                                       |
| 7/31/19      | EFT3973        | Brian L. Fry                      | 2,134.57                 | salary                                       |
| 7/31/19      | EFT3974        | Francis J. Griffith               | 92.35                    | salary                                       |
| 7/31/19      | EFT3975        | Gerrie G. Kilburn                 | 92.35                    | salary                                       |
| 7/31/19      | EFT3976        | Melvin L. Matthews                | 3,851.79                 | salary                                       |
| 7/31/19      | EFT3977        | Arthur W. Opel                    | 92.35                    | salary                                       |
| 7/31/19      | EFT3978        | Juan R. Tello                     | 1,719.31                 | salary                                       |
| 7/31/19      | EFT3979        | Christopher A. Burt               | 150.00                   | salary                                       |
| 7/31/19      | EFT3980        | Automatic Data Processing, Inc.   | <u>6,053.74</u>          | payroll taxes and withholdings               |
| <b>Total</b> |                |                                   | <b><u>130,935.26</u></b> |  |

\* Gap in check sequence, checks 9138-9141 damaged during printing.

**Credit Card Detail Umpqua Bank**  
**June 2019**  
(Expenses incurred/billed in June and due/paid in July)

| Acct.        | Account Description      | Additional Description   | MLM        | CAB      | BLF        | JDB      | BCA      | JRT      | TOTAL      |
|--------------|--------------------------|--|------------|----------|------------|----------|----------|----------|------------|
| 1514         | Computer/Office Equip.   |  |            |          |            |          |          |          | \$0.00     |
| 5010         | Maintenance Supplies     | AC fan/filters, light bulbs; Ni 125, coverall, gloves; Interstate battery; flashlight, multi-tool, handsaw, hedge shear, lopper, landscape tools |            | \$436.00 | \$141.37   |          | \$149.42 | \$248.20 | \$974.99   |
| 5012         | Safety Equipment         | cortisone cream; high visibility KID caps  |            |          | \$10.46    | \$52.84  |          |          | \$63.30    |
| 5022         | Training/Certification   |  |            |          |            |          |          |          | \$0.00     |
| 5025         | Water Treatment/Analysis | Cl2 test kits; salt pellets  |            |          | \$293.32   |          |          | \$43.75  | \$337.07   |
| 5035         | Vehicle Maintenance      | '08-2 oil change/tire rotation/AC repair   |            |          | \$1,553.16 |          |          |          | \$1,553.16 |
| 5036         | Fuel                     |  |            |          |            |          |          |          | \$0.00     |
| 6017         | Adm. Travel              |  |            |          |            |          |          |          | \$0.00     |
| 6021         | Adm. & Bd. Exp.          |  |            |          |            |          |          |          | \$0.00     |
| 6035         | Office/Computer Supplies | toner cartridges; pens refund; paper goods, notebooks, Staples membership, Amazon prime, KID caps; staff business cards                          | \$820.55   | -\$13.10 |            | \$278.45 | \$136.82 |          | \$1,222.72 |
| 6036         | Postage/Delivery         | stamps   |            |          |            | \$330.00 |          |          | \$330.00   |
| 6040         | Professional Dues        |  |            |          |            |          |          |          | \$0.00     |
| 6050         | Telephone                | answering service  | \$75.00    |          |            |          |          |          | \$75.00    |
| 6051         | Mobile Phone             |  |            |          |            |          |          |          | \$0.00     |
| 6053         | Internet Service         |  |            |          |            |          |          |          | \$0.00     |
| 6059         | Computer/Software Maint. | Sage software renewal, 8TB external hard drive   | \$831.24   |          |            |          |          |          | \$831.24   |
| 6061         | Office Equipment Maint.  |  |            |          |            |          |          |          | \$0.00     |
| 6075         | Outside Services         |  |            |          |            |          |          |          | \$0.00     |
| 6081         | Permits/Fees             |  |            |          |            |          |          |          | \$0.00     |
| <b>TOTAL</b> |                          |  | \$1,726.79 | \$422.90 | \$1,998.31 | \$661.29 | \$286.24 | \$291.95 | \$5,387.48 |

# General Manager's Report for the Board of Directors Meeting on August 20, 2019

## I. Customer Account Information and Internet Usage

### A. Delinquent Accounts –

25 accounts received past-due notice  
 25 accounts received late charges in the total amount of \$428.47  
 11 accounts received door hanger shut off notice  
 0 account was shut off for non-payment  
 0 account remain shut off for non-payment

### B. Aged Receivables –

| Month     | Current     | 30 days    | 60 days  | 90 days or greater | Total       |
|-----------|-------------|------------|----------|--------------------|-------------|
| January   | \$19,576.69 | \$3,491.39 | \$0.00   | \$0.00             | \$23,068.08 |
| February  | \$32,588.72 | \$4,502.38 | \$381.98 | \$0.00             | \$37,473.08 |
| March     | \$18,623.41 | \$2,023.53 | \$64.12  | \$59.92            | \$20,770.98 |
| April     | \$35,258.88 | \$1,661.07 | \$247.83 | \$124.04           | \$37,291.82 |
| May       | \$29,629.02 | \$1,897.19 | \$98.82  | \$216.54           | \$31,841.57 |
| June      | \$30,403.95 | \$3,358.89 | \$0.00   | \$0.00             | \$33,762.84 |
| July      | \$36,644.36 | \$2,775.65 | \$0.00   | \$0.00             | \$39,420.01 |
| August    |             |            |          |                    |             |
| September |             |            |          |                    |             |
| October   |             |            |          |                    |             |
| November  |             |            |          |                    |             |
| December  |             |            |          |                    |             |

### C. Internet Usage –

| Month        | Users | Page Views | Online Payments | Online Amount |
|--------------|-------|------------|-----------------|---------------|
| January      | 227   | 657        | 76              | \$19,881.25   |
| February     | 171   | 414        | 58              | \$10,629.13   |
| March        | 226   | 457        | 77              | \$12,350.13   |
| April        | 196   | 483        | 61              | \$9,696.11    |
| May          | 223   | 517        | 66              | \$14,734.69   |
| June         | 231   | 465        | 64              | \$12,255.22   |
| July         | 183   | 397        | 71              | \$17,881.28   |
| August       |       |            |                 |               |
| September    |       |            |                 |               |
| October      |       |            |                 |               |
| November     |       |            |                 |               |
| December     |       |            |                 |               |
| Year to Date | 1,457 | 3,390      | 473             | \$97,427.81   |

## II. General Manager's Projects and Activities

- A. **Water Main Improvement Projects** – The kickoff meeting for the Brown/Glen replacement pipeline was held and the design work has started.
- B. **2020 Budget** – Budget documents were prepared, and the first draft is being presented at this meeting.
- C. **Truck Replacement** – I am working on specifications for the two replacement pickup trucks
- D. **Website Redesign** – I am exploring various alternatives to update the design and ensure compliance with the new Accessibility/ADA legislation going into effect on January 1, 2020.
- E. **Annual Report** – I am working on my annual report for the Watermaster year 2018-2019.
- F. **Activities/Meetings/Webinars/Conferences**

| Subject or Organization     | Location       | Start                     | End                       | Purpose/Notes/Action/Benefit   |
|-----------------------------|----------------|---------------------------|---------------------------|--|
| <b>Staff Meetings</b>       | Office         | Mondays<br>9:00 AM        | Mondays<br>10:00 AM       | <ul style="list-style-type: none"> <li>• Tasks for the week</li> <li>• Projects -- current and future</li> <li>• Operations update</li> <li>• Customer service update</li> <li>• Operations update</li> <li>• GM update</li> <li>• Safety topic</li> </ul> |
| <b>FMWD</b>                 | La Cañada      | Mon 7/11/2019<br>3:30 PM  | Mon 7/11/2019<br>4:00 PM  | <ul style="list-style-type: none"> <li>• Finance Committee Meeting</li> <li>• 2019-2020 Budget</li> </ul>  |
| <b>ACWA JPIA</b>            | KID Facilities | Tue 7/16/2019<br>9:00 AM  | Tue 7/16/2019<br>12:00 PM | <ul style="list-style-type: none"> <li>• Annual risk control Inspection</li> <li>• Review of claims</li> <li>• Review of policies</li> <li>• Review of continuing education</li> </ul>   |
| <b>KID</b>                  | Office         | Tue 7/16/2019<br>3:00 PM  | Tue 7/16/2019<br>5:00 PM  | <ul style="list-style-type: none"> <li>• Regular board meeting</li> </ul>  |
| <b>RBMB</b>                 | Azusa          | Wed 7/17/2019<br>2:30 PM  | Wed 7/17/2019<br>4:00 PM  | <ul style="list-style-type: none"> <li>• Quarterly board meeting</li> <li>• Pasadena subarea pumping plan was approved</li> </ul>  |
| <b>Civiltec Engineering</b> | Kid Office     | Thu 7/29/2019<br>10:00 AM | Thu 7/29/2019<br>12:00 PM | <ul style="list-style-type: none"> <li>• Kickoff meeting for design of Brown/Glen Replacement Pipeline</li> </ul>  |

## III. System and Facility Activities and Incident Reports

- A. **Water Leak/Water Waste/Water Quality/Customer Contact**

| Location            | Type       | Date                     | Description  |
|---------------------|------------|--------------------------|--|
| <b>Glen Springs</b> | Water Leak | 7/1/2019 and<br>7/9/2019 | Bernadette noticed water continuously on the KID driveway. Customer was out of town. Brian confirmed that the meter was turning. Customer notified gardener to check for leaks. Gardener found a leak and requested that we turn off the water to facilitate a repair. |

|  |                  |                         |  |
|--|------------------|-------------------------|--|
| <b>Kinneloa Mesa Road</b>                    | Customer Contact | 7/2/2019                | Customer called to say that there was no water in the house. It was determined that workers had shut off the water and did not turn it back on.  |
| <b>Kinneloa Mesa Road</b>                    | Water Leak       | 7/10/2019               | Director Kilburn requested that we contact High Point Academy to follow up on the leak on irrigation water meter along the walking path. The director of finance indicated that a plumber had been scheduled to repair the leak. |
| <b>Pasadena Glen Road</b>                    | Water Leak       | 7/11/2019 and 7/25/2019 | Customer requested leak check. Small leak observed with all water shut off. Customer repaired leak and request a re-check. No leak observed.   |
| <b>Meyerloa Lane</b>                         | Water Leak       | 7/12/2019               | The leak in driveway was confirmed by Juan. Leak is only 2.1 gallons per day. It is the customer's responsibility to repair.   |
| <b>Villa Heights and Kinneloa Ranch Road</b> | Customer Contact | 7/12/2019               | Customer requested reread of two meters after receiving water billing statements. Meter readings were correct. Joel provided customer with water usage graphs to show that current usage was comparable to past usage.           |
| <b>Villa Knolls Drive</b>                    | Customer Contact | 7/16/2019               | Customer had faulty pressure regulator replaced and wanted to know our pumping schedule so that the new regulator could be tested for proper operation.  |
| <b>Kinclair Drive</b>                        | Water Leak       | 7/23/2019               | This is a continuing problem that has not been solved despite our troubleshooting recommendations to the customer.   |

**B. Current and Completed Capital Improvement, Facilities Improvement, Maintenance and Repair Projects and Activities**

1. Routine daily and monthly activities
  - a. Operator training
  - b. Meter and transmitter maintenance and replacement
  - c. Water samples
  - d. Vehicle and equipment maintenance and testing
  - e. Facility cleanup
  - f. Production meter readings
  - g. Chlorine generator maintenance
  - h. Meter reading
  - i. Customer service calls
  - j. Responding to Underground Service Alerts (USA's) to mark our pipelines
  
2. Facility and Equipment Repair and Maintenance for July
  - a. Repair leak in service lines on Vosburg Street
  - b. Repair leak in Vosburg chlorination equipment
  - c. Brush clearance at Office
  - d. K-3 vault fan motor replaced with temporary spare until new motor ordered
  - e. Repair fuel leak on Vosburg backup generator
  
3. Completed Projects
  - a. Inspection and cleanout of Eucalyptus and Wilcox Reservoirs
  - b. Repair leaks in Brown Reservoir
  - c. Replace 17 obsolete SCADA radios at all sites and install radio diagnostic program
  - d. Replace Glen Reservoir chlorination equipment

**C. Future Capital Improvement Projects, Facilities Improvement, Maintenance and Repair Projects**

1. Install additional shelving, add anti-slip covers to stairs and other safety items at Vosburg Warehouse
2. Replace chlorination equipment at Eucalyptus Reservoir
3. Install solar panel, battery and charger for utility power backup at Transfer Valve
4. Remove, replace and widen Office driveway and expand parking area
5. Replace 1996 Chevrolet and 1999 Ford pickups with new pickups and accessory equipment
6. Replace 50 hp booster (motor and pump) and sandblast and paint pump stand at Wilcox Reservoir
7. Test Advanced Water Meter Analytics (Hardware/software for cellular data collection test)
8. Sierra Madre Villa and Villa Heights Pipeline Improvement Project (Design phase)
9. Brown/Glen Pipeline Improvement Project (Design phase)

**IV. Water Supply Summary as of June for the Watermaster Year July 2018 through June 2019**

| Raymond Basin Groundwater (Acre Feet)   |            | Kinneloa Irrigation District Water Tunnels (Acre Feet)  |    |
|---|------------|---|----|
| Water Rights  | 516        | Eucalyptus  | 4  |
| Prior Year Carryover  | 52         | Far Mesa  | 3  |
| Less Temporary 30% Reduction in Water Rights  | -155       | Delores   | 3  |
| Leases/Exchanges  | 207        | House   | 0  |
| Prior Year Spreading  | 65         | Holly High/Low  | 6  |
| Short Term Storage  | 145        |   |    |
| Current Year Spreading  | 0          |   |    |
| <b>Total Allowable Extractions</b>  | <b>830</b> |   |    |
| Less Water Extracted YTD This Watermaster Year  | -650       | Current Tunnel Monthly Production                       | 16 |
| Remaining Allowable Groundwater Extractions through June 2019   | 180        | Remaining Estimated Tunnel Production through June 2019 | 16 |
| <b>Total Available Water Supply (Remaining Allowable Groundwater + Remaining Estimated Tunnel Production through June 2019)</b> |            | <b>196 Acre Feet</b>                                    |    |
| Less Remaining Forecasted Retail Water Sales through June 2019  |            | -51 Acre Feet   |    |
| <b>Surplus Water through June 2019*</b>   |            | <b>145 Acre Feet</b>                                    |    |

\* This is the forecasted surplus water available for sale in the current year and/or carryover to the next Watermaster year which starts on July 1 subject to the carryover limits established by the Raymond Basin Management Board. Regarding the available surplus water, we will generally maximize the carryover to the next year and deliver the balance of the forecasted surplus water (if any) to the City of Pasadena. In the 2017-2018 year, 87 Acre-Feet were sold to the City, 52 Acre-Feet were carried over to 2018-2019 and 145 Acre-Feet were put into our short-term storage account. Although we may lease additional pumping rights from another agency with surplus pumping rights, this is not considered a guaranteed source of supply since it is subject to negotiation. In addition to the available water, the KID has 790 Acre Feet in a long-term storage account. Additions to long-term storage are no longer permitted but withdrawals can be made at any time to supplement allowable extractions. However, since long-term storage is considered by KID staff to be an emergency supply, we do not plan to use or sell this water now.

**V. Information Items**

- A. Water Samples and Test Results – See Attachment A**
- B. Nitrate Results from January 2016 through April 2019 Present – See Attachment B**



# Attachment A

## Water Samples and Test Results

| Sample Date | Source or Distribution | Lab      | Description             | # of tests | Results**     | Maximum Contaminant Level* (MCL) |
|-------------|------------------------|----------|-------------------------|------------|---------------|----------------------------------|
| 01/04/19    | Source                 | Weck     | Title 22 DEHP           | 5          | ND or A       | 4 ppb                            |
| 01/04/19    | Source                 | Weck     | Title 22 nitrate        | 2          | 4.4 ppm       | 10 ppm                           |
| 01/04/19    | Source                 | Weck     | Title 22 fluoride       | 5          | 1.1 - 2.7 ppm | 3 ppm                            |
| 01/08/19    | Distribution           | Clinical | color, odor, turbidity* | 18         | <MCL          | 15 units, 3 units, 5 units       |
| 01/08/19    | Distribution           | Clinical | fluoride                | 6          | 1.0 - 1.4 ppm | 3 ppm                            |
| 01/08/19    | Both                   | Eurofins | coliform, e. coli       | 72         | ND or A       | 1 positive sample                |
| 01/22/19    | Both                   | Eurofins | coliform, e. coli       | 64         | ND or A       | 1 positive sample                |
| 01/22/19    | Source                 | Eurofins | coliform, e. coli       | 8          | ND or A       | 1 positive sample                |
| 02/04/19    | Source                 | Weck     | Title 22 VOC            | 67         | ND or A       | 1 positive sample                |
| 02/04/19    | Source                 | Weck     | Title 22 1,2,3 TCP      | 1          | ND or A       | 0.005ppb                         |
| 02/04/19    | Source                 | Weck     | Title 22 DEHP           | 1          | ND or A       | 4ppb                             |
| 02/04/19    | Source                 | Weck     | Title 22 nitrate        | 1          | 2.7ppm        | 10ppm                            |
| 02/04/19    | Source                 | Weck     | Title 22 fluoride       | 1          | 2.3ppm        | 2ppm                             |
| 02/04/19    | Source                 | Weck     | Title 22 Uranium        | 1          | 2.7pCi/L      | 20pCi/L                          |
| 02/06/19    | Both                   | Eurofins | coliform, e. coli       | 72         | ND or A       | 1 positive sample                |
| 02/06/19    | Both                   | Eurofins | coliform, e. coli       | 8          | ND or A       | 1 positive sample                |
| 02/07/19    | Distribution           | Clinical | color, odor, turbidity* | 18         | <MCL          | 15 units, 3 units, 5 units       |
| 02/07/19    | Both                   | Eurofins | coliform, e. coli       | 8          | ND or A       | 1 positive sample                |
| 02/07/19    | Both                   | Eurofins | coliform, e. coli       | 8          | ND or A       | 1 positive sample                |
| 02/19/19    | Both                   | Eurofins | coliform, e. coli       | 64         | ND or A       | 1 positive sample                |
| 03/04/19    | Both                   | Eurofins | coliform, e. coli       | 80         | ND or A       | 1 positive sample                |
| 03/05/19    | Distribution           | Clinical | color, odor, turbidity* | 18         | <MCL          | 15 units, 3 units, 5 units       |
| 03/06/19    | Both                   | Eurofins | coliform, e. coli       | 16         | ND or A       | 1 positive sample                |
| 03/07/19    | Both                   | Eurofins | coliform, e. coli       | 16         | ND or A       | 1 positive sample                |
| 03/19/19    | Both                   | Eurofins | coliform, e. coli       | 64         | ND or A       | 1 positive sample                |
| 04/02/19    | Distribution           | Clinical | color, odor, turbidity* | 18         | <MCL          | 15 units, 3 units, 5 units       |
| 04/02/19    | Distribution           | Clinical | fluoride                | 6          | 1.2 - 1.6 ppm | 3 ppm                            |
| 04/02/19    | Both                   | Eurofins | coliform, e. coli       | 80         | ND or A       | 1 positive sample                |
| 04/04/19    | Source                 | Weck     | Title 22 fluoride       | 3          | 1.1 - 2.6 ppm | 3 ppm                            |
| 04/04/19    | Source                 | Weck     | Title 22 nitrate        | 2          | 0.8 - 4.4 ppm | 10 ppm                           |
| 04/04/19    | Source                 | Weck     | Title 22 1,2,3 TCP      | 4          | ND            | 80 ppb                           |
| 04/15/19    | Both                   | Eurofins | coliform, e. coli       | 64         | ND or A       | 1 positive sample                |
| 05/08/19    | Distribution           | Clinical | color, odor, turbidity* | 18         | <MCL          | 15 units, 3 units, 5 units       |
| 05/08/19    | Both                   | Eurofins | coliform, e. coli       | 80         | ND or A       | 1 positive sample                |
| 05/08/19    | Distribution           | Eurofins | coliform, e. coli       | 16         | ND or A       | 1 positive sample                |
| 05/09/19    | Distribution           | Eurofins | coliform, e. coli       | 16         | ND or A       | 1 positive sample                |
| 05/21/19    | Both                   | Eurofins | coliform, e. coli       | 64         | ND or A       | 1 positive sample                |
| 06/04/19    | Distribution           | Clinical | color, odor, turbidity* | 18         | <MCL          | 15 units, 3 units, 5 units       |
| 06/04/19    | Both                   | Eurofins | coliform, e. coli       | 80         | ND or A       | 1 positive sample                |
| 06/18/19    | Both                   | Eurofins | coliform, e. coli       | 64         | ND or A       | 1 positive sample                |
| 07/08/19    | Distribution           | Clinical | color, odor, turbidity* | 18         | <MCL          | 15 units, 3 units, 5 units       |

# Attachment A

## Water Samples and Test Results

| Sample Date | Source or Distribution | Lab      | Description       | # of tests | Results**           | Maximum Contaminant Level* (MCL) |
|-------------|------------------------|----------|-------------------|------------|---------------------|----------------------------------|
| 07/08/19    | Both                   | Eurofins | coliform, e. coli | 80         | ND or A             | 1 positive sample                |
| 07/23/19    | Both                   | Eurofins | coliform, e. coli | 64         | ND or A             | 1 positive sample                |
| 07/25/19    | Residences             | Clinical | lead & copper***  | 20         | ND-100ppb,ND-1.4ppm | 15 ppb, 1.3 ppm                  |

**Total samples to date: 1339**

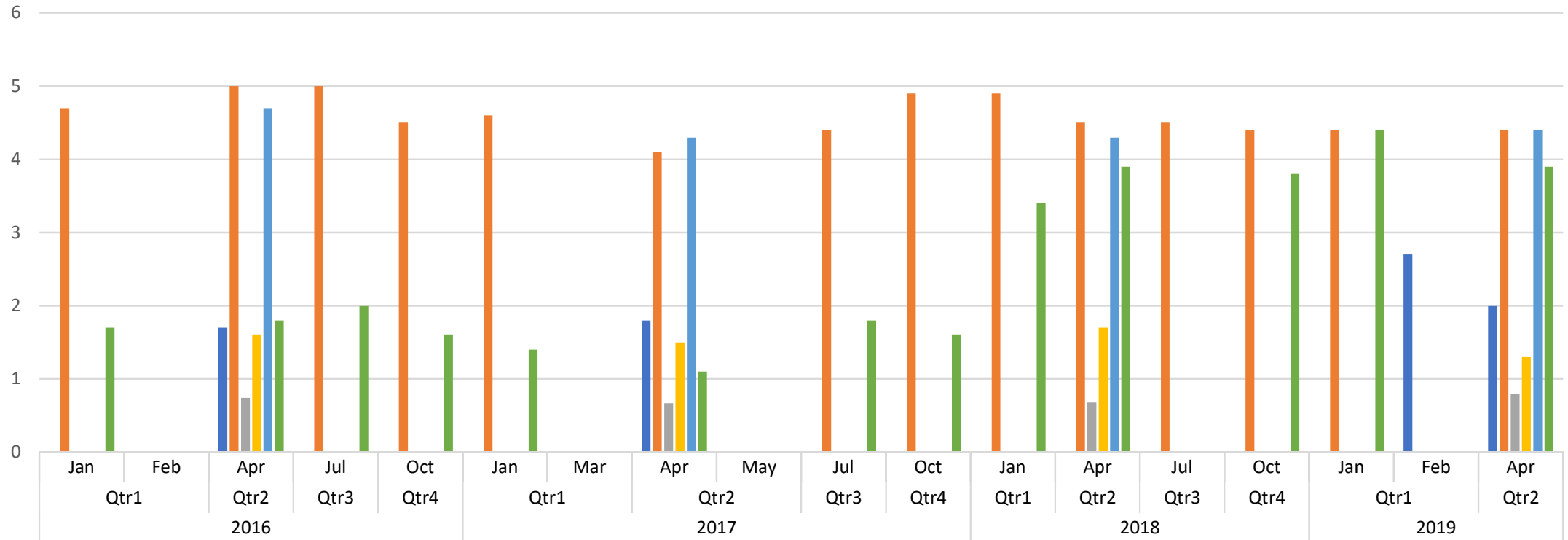
\* Color, odor, and turbidity are regulated by a secondary standard to maintain aesthetic qualities.

\*\* ppm = parts-per-million, ppb = parts-per-billion, pCi/L = picocuries per liter, <MCL = less than Maximum Contaminant Level, ND = not detected, A = Absence

\*\*\* In July 2019, 10 residences were tested for lead and copper at the tap. Copper was detected in 7 samples. lead was detected in 2 samples. The 90th percentile values for the District were below the lead action level of 15 ppb and below the copper action level of 1.3 ppm. One residence exceeded both the lead and copper action level and is being retested.

Sum of Nitrate (as N) ppm or mg/L

### Attachment B - Nitrate Results 01/2016 to 04/2019 (MCL 10 ppm)



| Years | Quarters | Sample Date |
|-------|----------|-------------|
| 2016  | Qtr1     | Jan         |
| 2016  | Qtr2     | Apr         |
| 2016  | Qtr3     | Jul         |
| 2016  | Qtr4     | Oct         |
| 2017  | Qtr1     | Jan         |
| 2017  | Qtr2     | Apr         |
| 2017  | Qtr3     | Jul         |
| 2017  | Qtr4     | Oct         |
| 2018  | Qtr1     | Jan         |
| 2018  | Qtr2     | Apr         |
| 2018  | Qtr3     | Jul         |
| 2018  | Qtr4     | Oct         |
| 2019  | Qtr1     | Jan         |
| 2019  | Qtr2     | Apr         |



# Memo

Date: August 12, 2019  
To: Board of Directors  
From: Mel Matthews, General Manager  
Subject: Proposed 2020 Budget

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Attached for your review are three documents to aid in our discussion of the proposed 2020 budget:

- **10-year Actual and Forecasted Income and Expenses**
- **2020 Budget Worksheet**
- **Proposed 2020 Budget**

The **10-year Actual and Forecasted Income and Expense** document shows the actual income and expenses for the past five years and the forecasted income and expenses for the next five years including the proposed budget for 2020.

The **2020 Budget Worksheet** provides a comparison of the 2019 budget, the 2019 yearend forecast and the proposed 2020 budget with explanatory notes.

The **Proposed 2020 Budget** provides a summary of the budget, a breakdown of the revenues, expenses, capital expenditures and the reserve balances as well as a rate history. This becomes the official budget of the District when approved and when the proposed water rates or modified rates are approved after the public hearing.

## **Revenue**

The projected 2020 revenue is based on the current rates which were effective on January 1, 2019, the forecasted water sales for 2019 and a proposed 3% rate increase effective on January 1, 2020. This recommended increase is necessary primarily due to the increase in general operating and administrative expenses and general inflationary increases in most expenses including construction costs. If conservation by our customers and/or weather conditions reduces water sales in 2020, we would have water available for sale to Pasadena. Therefore, I have included \$90,000 in the wholesale water sales in the budget for 2020. If customer demand increases over my projection, the revenue generated by our customers will make up for any revenue shortfall in wholesale water sales.

## Expenses

The proposed 2020 expenses are mostly the same as those approved for the 2019 budget. The difference (if any) and an explanation is provided on expenses that are changed from the 2019 budget. The proposed expenses will be refined for the September meeting when we have one more month of actual expenses.

The proposed improvement and maintenance expenditures for 2020 include \$500,000 for the construction of pipeline projects. However, the engineering of the two major projects will not be completed until later in the year and bidding to determine actual costs will be in the later portion on the 1<sup>st</sup> quarter of 2020. So, consider this expense to be an estimate based on prior projects. As in past years, some projects can be deferred if necessary to maintain the desired net cash flow and all projects will be evaluated and prioritized as the year progresses. Additional projects may be presented during the year for approval if the actual cash flow exceeds the budgeted amount.

The current recommendation is to not use financing for any additional projects. However, to maintain our reserve funds at current levels and accomplish the capital and preventative maintenance projects, it will be necessary to increase rates about 3% a year to maintain our reserve fund and cover our existing debt service payments. I used a 2.5% annual increase in most expense categories in the ***10-year Actual and Forecasted Income and Expense*** document. This is consistent with the average annual inflation rate as measured by the Consumer Price Index in our area over the past few years.

# 10-Year Actual and Forecasted Income and Expenses

| Account | Account Description            | 2024 Forecast    | 2023 Forecast    | 2022 Forecast    | 2021 Forecast    | 2020 Budget      | 2019 Forecast    | 2018 Actual      | 2017 Actual      | 2016 Actual      | 2015 Actual      | 10-Year Total     | 5-Year Average   |
|---------|--------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|
| 4000    | Water Sales                    | 1,688,263        | 1,639,091        | 1,591,350        | 1,545,000        | 1,500,000        | 1,430,738        | 1,579,233        | 1,521,355        | 1,426,516        | 1,220,253        | 15,141,799        | 1,436,839        |
| 4015    | Wholesale Water Sales          | 92,882           | 90,177           | 87,550           | 85,000           | 90,000           | 112,003          | 92,049           | 88,347           | 68,126           | 6,947            | 813,080           | 63,867           |
| 4020    | Service/Installation Charges   | 11,255           | 10,927           | 10,609           | 10,300           | 10,000           | 10,710           | 19,449           | 26,959           | 22,542           | 21,023           | 153,775           | 22,493           |
| 4025    | Asset Sale                     | 0                | 0                | 0                | 1,000            | 0                | 0                | 0                | 0                | 10,675           | 0                | 11,675            | 2,669            |
| 4035    | Interest-Reserve Fund          | 33,765           | 32,782           | 31,827           | 30,900           | 30,000           | 36,016           | 13,250           | 13,010           | 12,108           | 9,049            | 242,707           | 11,854           |
| 4050    | Capacity Charge                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                 | 0                |
| 4070    | Misc. Income                   | 0                | 0                | 0                | 0                | 0                | 5,969            | 10,845           | 3,943            | 1,222            | 1,648            | 23,627            | 4,414            |
|         | <b>Total Income</b>            | <b>1,826,165</b> | <b>1,772,976</b> | <b>1,721,336</b> | <b>1,672,200</b> | <b>1,630,000</b> | <b>1,595,437</b> | <b>1,714,826</b> | <b>1,653,613</b> | <b>1,541,189</b> | <b>1,258,920</b> | <b>16,386,664</b> | <b>1,542,137</b> |
| 5000    | Leased Water Rights            | 0                | 0                | 0                | 0                | 63,135           | 63,135           | 63,135           | 0                | 63,135           | 63,135           | 315,675           | 47,351           |
| 5005    | Electricity                    | 120,000          | 120,000          | 120,000          | 120,000          | 125,000          | 112,319          | 127,199          | 122,814          | 110,282          | 108,380          | 1,185,993         | 117,169          |
| 5010    | Maintenance Supplies           | 27,595           | 26,922           | 26,266           | 25,625           | 25,000           | 35,062           | 35,425           | 28,159           | 24,710           | 29,074           | 283,839           | 29,342           |
| 5011    | Material and Labor for Install | 11,038           | 10,769           | 10,506           | 10,250           | 10,000           | 4,167            | 1,481            | 10,703           | 8,281            | 0                | 77,195            | 5,116            |
| 5012    | Safety Equipment               | 1,766            | 1,723            | 1,681            | 1,640            | 1,600            | 2,161            | 362              | 452              | 1,753            | 476              | 13,614            | 761              |
| 5015    | Operations & Maintenance Labor | 227,827          | 222,270          | 216,849          | 211,560          | 206,400          | 193,494          | 168,869          | 133,728          | 142,253          | 139,218          | 1,862,467         | 146,017          |
| 5016    | Operations & Maintenance OT    | 14,901           | 14,538           | 14,183           | 13,838           | 13,500           | 12,608           | 8,123            | 22,983           | 34,413           | 30,844           | 179,932           | 24,091           |
| 5017    | Operations Bonus               | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 2,469            | 2,469             | 617              |
| 5020    | Stand-by Compensation          | 10,950           | 10,950           | 10,950           | 10,950           | 10,980           | 10,593           | 7,350            | 7,410            | 7,170            | 7,200            | 94,503            | 7,283            |
| 5022    | Training/Certification         | 1,766            | 1,723            | 1,681            | 1,640            | 1,600            | 897              | 850              | 725              | 470              | 0                | 11,352            | 511              |
| 5025    | Water Treatment/Analysis       | 24,284           | 23,692           | 23,114           | 22,550           | 22,000           | 21,428           | 22,540           | 15,108           | 17,146           | 15,127           | 206,988           | 17,480           |
| 5030    | Maintenance Contractors        | 143,496          | 139,996          | 136,581          | 133,250          | 130,000          | 148,064          | 114,816          | 129,294          | 102,259          | 82,752           | 1,260,507         | 107,280          |
| 5034    | Equipment Maintenance          | 16,557           | 16,153           | 15,759           | 15,375           | 15,000           | 16,232           | 9,002            | 10,140           | 7,101            | 9,632            | 130,952           | 8,969            |
| 5035    | Vehicle Maintenance            | 16,557           | 16,153           | 15,759           | 15,375           | 15,000           | 10,616           | 8,219            | 5,040            | 6,644            | 5,170            | 114,534           | 6,268            |
| 5036    | Fuel - All Equipment           | 16,557           | 16,153           | 15,759           | 15,375           | 15,000           | 15,080           | 11,712           | 7,849            | 7,862            | 9,263            | 130,610           | 9,171            |
| 5040    | Equipment Rental               | 500              | 500              | 500              | 500              | 500              | 500              | 0                | 0                | 0                | 0                | 3,000             | 0                |
| 5045    | Insurance-Workers Comp.        | 22,076           | 21,538           | 21,013           | 20,500           | 20,000           | 19,694           | 14,300           | 9,434            | 10,710           | 11,090           | 170,355           | 11,384           |
| 5046    | Insurance-Liability            | 17,661           | 17,230           | 16,810           | 16,400           | 16,000           | 14,534           | 14,285           | 14,264           | 14,151           | 14,155           | 155,490           | 14,214           |
| 5048    | Insurance-Property             | 2,760            | 2,692            | 2,627            | 2,563            | 2,500            | 1,464            | 1,767            | 1,925            | 2,081            | 2,041            | 22,419            | 1,954            |
| 5049    | Insurance-Medical              | 97,687           | 95,305           | 92,980           | 90,713           | 88,500           | 84,077           | 77,370           | 68,322           | 74,938           | 74,632           | 844,524           | 73,816           |
| 6000    | Engineering Services           | 52,431           | 51,152           | 49,905           | 48,688           | 47,500           | 30,703           | 4,770            | 10,955           | 24,456           | 41,981           | 362,540           | 20,540           |
| 6005    | Watermaster Services           | 12,000           | 12,000           | 12,000           | 12,000           | 12,000           | 10,567           | 10,740           | 11,039           | 11,149           | 10,969           | 114,463           | 10,974           |
| 6015    | Administrative Salary          | 169,987          | 165,841          | 161,796          | 157,850          | 154,000          | 137,868          | 134,291          | 130,064          | 130,064          | 128,170          | 1,469,933         | 130,648          |
| 6016    | Administrative Bonus           | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 1,894            | 1,894             | 474              |
| 6017    | Administrative Travel          | 3,311            | 3,231            | 3,152            | 3,075            | 3,000            | 1,861            | 1,399            | 2,933            | 1,848            | 2,281            | 26,091            | 2,115            |
| 6020    | BofD Compensation              | 5,600            | 5,600            | 5,600            | 5,600            | 5,600            | 5,233            | 5,000            | 5,200            | 4,000            | 3,200            | 50,633            | 4,350            |
| 6021    | Administrative & Board Exp.    | 1,104            | 1,077            | 1,051            | 1,025            | 1,000            | 417              | 0                | 953              | 242              | 725              | 7,593             | 480              |
| 6022    | B of D Election                | 12,500           | 0                | 12,500           | 0                | 12,500           | 12,500           | 81               | 0                | 115              | 0                | 50,197            | 49               |
| 6024    | Customer/Public Information    | 2,208            | 2,154            | 2,101            | 2,050            | 2,000            | 866              | 1,688            | 1,533            | 1,775            | 601              | 16,976            | 1,399            |
| 6025    | PERS - KID                     | 39,737           | 38,768           | 37,823           | 36,900           | 36,000           | 32,766           | 32,381           | 225,918          | 25,206           | 23,849           | 529,349           | 76,839           |
| 6030    | Social Security - KID          | 32,011           | 31,230           | 30,468           | 29,725           | 29,000           | 27,698           | 24,807           | 21,569           | 24,520           | 24,182           | 275,210           | 23,770           |
| 6031    | Medicare - KID                 | 6,844            | 6,677            | 6,514            | 6,355            | 6,200            | 6,235            | 5,837            | 5,058            | 5,902            | 5,821            | 61,443            | 5,655            |
| 6035    | Office/Computer Supplies       | 7,727            | 7,538            | 7,354            | 7,175            | 7,000            | 7,659            | 6,406            | 7,296            | 4,537            | 4,901            | 67,594            | 5,785            |
| 6036    | Postage/Delivery               | 5,519            | 5,384            | 5,253            | 5,125            | 5,000            | 4,514            | 2,883            | 3,803            | 3,706            | 4,763            | 45,952            | 3,789            |
| 6040    | Professional Dues              | 13,246           | 12,923           | 12,608           | 12,300           | 12,000           | 13,213           | 10,644           | 10,608           | 11,045           | 9,490            | 118,077           | 10,447           |
| 6045    | Legal                          | 16,557           | 16,153           | 15,759           | 15,375           | 15,000           | 11,884           | 8,425            | 2,205            | 11,573           | 9,775            | 122,707           | 7,995            |
| 6050    | Telephone                      | 4,967            | 4,846            | 4,728            | 4,613            | 4,500            | 4,408            | 4,276            | 3,995            | 4,132            | 4,273            | 44,737            | 4,169            |
| 6051    | Mobile Telephone               | 1,656            | 1,615            | 1,576            | 1,538            | 1,500            | 1,280            | 920              | 804              | 456              | 567              | 11,911            | 687              |

# 10-Year Actual and Forecasted Income and Expenses

| Account | Account Description                                 | 2024 Forecast    | 2023 Forecast    | 2022 Forecast    | 2021 Forecast    | 2020 Budget      | 2019 Forecast    | 2018 Actual      | 2017 Actual      | 2016 Actual      | 2015 Actual      | 10-Year Total     | 5-Year Average   |
|---------|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|
| 6052    | Pagers  | 552              | 538              | 525              | 513              | 500              | 486              | 340              | 431              | 336              | 267              | 4,489             | 344              |
| 6053    | Internet Service                                    | 1,104            | 1,077            | 1,051            | 1,025            | 1,000            | 744              | 1,205            | 1,006            | 720              | 720              | 9,651             | 913              |
| 6059    | Computer/Software Maintenance                       | 13,246           | 12,923           | 12,608           | 12,300           | 12,000           | 9,190            | 14,832           | 5,544            | 6,933            | 7,008            | 106,583           | 8,579            |
| 6061    | Office Equipment Maintenance                        | 1,104            | 1,077            | 1,051            | 1,025            | 1,000            | 778              | 0                | 129              | 256              | 619              | 7,038             | 251              |
| 6065    | Accounting Services                                 | 7,727            | 7,538            | 7,354            | 7,175            | 7,000            | 6,400            | 6,750            | 6,750            | 8,550            | 6,200            | 71,444            | 7,063            |
| 6070    | Office & Accounting Labor                           | 120,868          | 117,920          | 115,043          | 112,238          | 109,500          | 88,847           | 93,934           | 61,425           | 85,794           | 87,162           | 992,730           | 82,079           |
| 6071    | Office & Accounting Bonus                           | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 1,275            | 1,275             | 319              |
| 6075    | Professional/Contract Services                      | 30,907           | 30,153           | 29,418           | 28,700           | 28,000           | 31,609           | 28,996           | 27,980           | 23,349           | 20,650           | 279,761           | 25,244           |
| 6080    | Capital and Administrative Fee                      | 9,934            | 9,692            | 9,456            | 9,225            | 9,000            | 9,234            | 8,470            | 8,109            | 8,368            | 8,705            | 90,193            | 8,413            |
| 6081    | Permits/Fees  | 16,557           | 16,153           | 15,759           | 15,375           | 15,000           | 10,758           | 7,308            | 7,333            | 14,318           | 12,112           | 130,673           | 10,268           |
| 6086    | Taxes - Sales                                       | 552              | 538              | 525              | 513              | 500              | 39               | 84               | 276              | 352              | 342              | 3,721             | 264              |
| 6088    | Interest Expense                                    | 40,306           | 45,955           | 52,006           | 56,664           | 61,735           | 66,628           | 71,290           | 75,916           | 80,233           | 41,745           | 592,477           | 67,296           |
| 6120    | Bank Service Charges                                | 7,175            | 7,000            | 6,829            | 6,663            | 6,500            | 6,779            | 6,546            | 6,646            | 6,136            | 5,002            | 65,276            | 6,083            |
|         | <b>Total Expenses</b>                               | <b>1,411,414</b> | <b>1,375,062</b> | <b>1,364,831</b> | <b>1,328,909</b> | <b>1,387,250</b> | <b>1,307,288</b> | <b>1,181,111</b> | <b>1,233,830</b> | <b>1,135,430</b> | <b>1,073,907</b> | <b>12,799,032</b> | <b>1,156,070</b> |
|         | <b>NET REVENUES</b>                                 | <b>414,752</b>   | <b>397,914</b>   | <b>356,505</b>   | <b>343,291</b>   | <b>242,750</b>   | <b>288,148</b>   | <b>533,715</b>   | <b>419,783</b>   | <b>405,759</b>   | <b>185,014</b>   | <b>3,587,632</b>  | <b>386,068</b>   |
|         | <b>Capital and Planned Maintenance Expenditures</b> |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |
| 1504    | Water Mains   | 20,000           | 100,000          | 20,000           | 20,000           | 500,000          | 0                | 0                | 1,099,600        | 0                | 21,496           | 1,781,096         | 280,274          |
| 1505    | Water Tunnels                                       | 0                | 0                | 0                | 0                | 10,000           | 0                | 0                | 23,089           | 0                | 0                | 33,089            | 5,772            |
| 1506    | K-3 Well  | 50,000           | 0                | 0                | 0                | 0                | 0                | 0                | 6,695            | 0                | 0                | 56,695            | 1,674            |
| 1509    | Wilcox Well/Wilcox Booster                          | 0                | 0                | 0                | 0                | 52,000           | 0                | 0                | 0                | 0                | 0                | 52,000            | 0                |
| 1511    | Water Treatment Plant                               | 1,000            | 1,000            | 1,000            | 1,000            | 6,000            | 5,751            | 1,990            | 0                | 0                | 0                | 17,741            | 498              |
| 1512    | Water Meters  | 5,000            | 5,000            | 5,000            | 5,000            | 9,000            | 9,000            | 16,158           | 5,509            | 1,461            | 0                | 61,128            | 5,782            |
| 1513    | Electrical/Electronic Equipment                     | 5,000            | 5,000            | 5,000            | 5,000            | 5,000            | 5,000            | 0                | 0                | 0                | 0                | 30,000            | 0                |
| 1514    | Computer/Office Equipment                           | 5,000            | 5,000            | 5,000            | 5,000            | 5,000            | 4,716            | 8,035            | 3,629            | 1,652            | 1,652            | 44,684            | 3,742            |
| 1515    | Vehicles & Portable Equipment                       | 40,000           | 0                | 40,000           | 0                | 90,000           | 0                | 0                | 0                | 20,465           | 0                | 190,465           | 5,116            |
| 1516    | Water Company Facilities                            | 10,000           | 10,000           | 10,000           | 10,000           | 30,000           | 20,000           | 0                | 0                | 0                | 4,671            | 94,671            | 1,168            |
| 1517    | KID Office  |                  |                  |                  |                  |                  |                  | 538              |                  |                  |                  |                   |                  |
| 1522    | Eucalyptus Booster                                  | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                 | 0                |
| 1523    | Construction in Progress - Vosburg                  | 0                | 0                | 0                | 0                | 0                | 0                | 0                | -1,555,035       | 317,049          | 1,237,986        | 0                 | 0                |
| 1524    | Construction in Progress - East/W                   | 0                | 0                | 0                | 0                | 0                | 0                | 0                | -713,677         | 698,128          | 15,549           | 0                 | 0                |
| 1526    | Vosburg Booster                                     | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 1,555,035        | 0                | 0                | 1,555,035         | 388,759          |
| 1527    | SCADA   | 10,000           | 10,000           | 10,000           | 40,000           | 10,000           | 42,260           | 29,853           | 23,318           | 7,411            | 10,722           | 193,564           | 17,826           |
| 1528    | Tank and Reservoir Maintenance                      | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 21,548           | 0                | 21,548            | 5,387            |
| 1530    | Tools   | 1,500            | 1,500            | 1,500            | 1,500            | 0                | 0                | 0                | 0                | 0                | 0                | 6,000             | 0                |
| 2400    | Installment Purchase Agreement                      | 159,896          | 154,546          | 148,796          | 143,538          | 138,467          | 133,574          | 128,912          | 124,286          | 119,969          | -2,241,644       | -989,659          | -467,119         |
|         | <b>Total Other Expenditures</b>                     | <b>307,396</b>   | <b>292,046</b>   | <b>246,296</b>   | <b>231,038</b>   | <b>855,467</b>   | <b>220,301</b>   | <b>185,486</b>   | <b>572,448</b>   | <b>1,187,682</b> | <b>-949,567</b>  | <b>4,137,715</b>  | <b>249,012</b>   |
|         | <b>NET CASH FLOW</b>                                | <b>107,355</b>   | <b>105,867</b>   | <b>110,209</b>   | <b>112,253</b>   | <b>-612,717</b>  | <b>67,847</b>    | <b>348,229</b>   | <b>-152,665</b>  | <b>-781,923</b>  | <b>1,134,581</b> | <b>-550,084</b>   | <b>36,854</b>    |

## Kinneloa Irrigation District 2020 Budget Worksheet (Proposed Rates)

| Account | Account Description            | 2019 Budget      | 2019 FYE Forecast as of 7/31/2019 | Variance of 2019 FYE Forecast to 2019 Budget | Proposed 2020 Budget | Variance of Proposed 2020 Budget to 2019 Budget | Notes  |
|---------|--------------------------------|------------------|-----------------------------------|--|----------------------|---|--|
| 4000    | Water Sales                    | 1,500,000        | 1,430,738                         | -69,262                                      | 1,500,000            | 0   | Projection based on 3% rate increase and current usage             |
| 4015    | Wholesale Water Sales          | 85,000           | 112,003                           | 27,003                                       | 90,000               | 5,000   | Projection based on wholesale rate increase and estimated delivery |
| 4020    | Service Charges                | 10,000           | 10,710                            | 710  | 10,000               | 0   |  |
| 4025    | Asset Sale/Miscellaneous       | 0                | 0                                 | 0  | 0                    | 0   |  |
| 4035    | Interest-Reserve Fund          | 15,000           | 36,016                            | 21,016                                       | 30,000               | 15,000  | Reserve balance and interest rates have increased                  |
| 4050    | Capacity Charge                | 0                | 0                                 | 0  | 0                    | 0   |  |
| 4070    | Misc. Income                   | 0                | 5,969                             | 5,969  | 0                    | 0   |  |
|         | <b>Total Income</b>            | <b>1,610,000</b> | <b>1,595,437</b>                  | <b>-14,563</b>                               | <b>1,630,000</b>     | <b>20,000</b>                                   |  |
| 5000    | Leased Water Rights            | 63,135           | 63,135                            | 0  | 63,135               | 0   |  |
| 5005    | Electricity                    | 125,000          | 112,319                           | -12,681                                      | 125,000              | 0   |  |
| 5010    | Maintenance Supplies           | 25,000           | 35,062                            | 10,062                                       | 25,000               | 0   |  |
| 5011    | Material and Labor for Install | 10,000           | 4,167                             | -5,833                                       | 10,000               | 0   |  |
| 5012    | Safety Equipment               | 1,600            | 2,161                             | 561  | 1,600                | 0   |  |
| 5015    | Operations & Maintenance Labor | 198,400          | 193,494                           | -4,906                                       | 206,400              | 8,000   | Merit and cost of living increases                                 |
| 5016    | Non-Emergency Operations OT    | 9,000            | 12,608                            | 3,608  | 13,500               | 4,500   | Merit and cost of living increases                                 |
| 5017    | Operations Bonus               | 0                | 0                                 | 0  | 0                    | 0   |  |
| 5020    | Stand-by Compensation          | 10,950           | 10,593                            | -358   | 10,980               | 30  |  |
| 5022    | Training/Certification         | 1,600            | 897                               | -703   | 1,600                | 0   |  |
| 5025    | Water Treatment/Analysis       | 22,000           | 21,428                            | -572   | 22,000               | 0   |  |
| 5030    | Maintenance Contractors        | 125,000          | 148,064                           | 23,064                                       | 130,000              | 5,000   | Contractor labor rate has increased                                |
| 5034    | Equipment Maintenance          | 12,500           | 16,232                            | 3,732  | 15,000               | 2,500   | Service providers labor and parts have increased                   |
| 5035    | Vehicle Maintenance            | 10,000           | 10,616                            | 616  | 15,000               | 5,000   | Vehicles are older and require more maintenance                    |
| 5036    | Fuel - All Equipment           | 15,000           | 15,080                            | 80   | 15,000               | 0   |  |
| 5040    | Equipment Rental               | 500              | 500                               | 0  | 500                  | 0   |  |
| 5045    | Insurance-Workers Comp.        | 12,000           | 19,694                            | 7,694  | 20,000               | 8,000   | Rate increase  |
| 5046    | Insurance-Liability            | 16,000           | 14,534                            | -1,466                                       | 16,000               | 0   |  |
| 5048    | Insurance-Property             | 2,500            | 1,464                             | -1,036                                       | 2,500                | 0   |  |
| 5049    | Insurance-Medical              | 76,500           | 84,077                            | 7,577  | 88,500               | 12,000  | Fully staffed this year  |
| 6000    | Engineering Services           | 47,500           | 30,703                            | -16,797                                      | 47,500               | 0   |  |
| 6005    | Watermaster Services           | 12,000           | 10,567                            | -1,433                                       | 12,000               | 0   |  |
| 6015    | Administrative Salary          | 148,000          | 137,868                           | -10,132                                      | 154,000              | 6,000   | Merit and cost of living increases                                 |
| 6016    | Administrative Bonus           | 0                | 0                                 | 0  | 0                    | 0   |  |
| 6017    | Administrative Travel          | 3,000            | 1,861                             | -1,139                                       | 3,000                | 0   |  |
| 6020    | BofD Compensation              | 5,600            | 5,233                             | -367   | 5,600                | 0   |  |
| 6021    | Administrative & Board Expense | 1,000            | 417                               | -583   | 1,000                | 0   |  |



## Kinneloa Irrigation District 2020 Budget Worksheet (Proposed Rates)

| Account                   | Account Description             | 2019 Budget      | 2019 FYE Forecast as of 7/31/2019 | Variance of 2019 FYE Forecast to 2019 Budget | Proposed 2020 Budget | Variance of Proposed 2020 Budget to 2019 Budget | Notes   |
|---------------------------|---------------------------------|------------------|-----------------------------------|--|----------------------|---|---|
| 6022                      | Board of Directors Election     | 12,500           | 12,500                            | 0  | 12,500               | 0   |   |
| 6024                      | Customer/Public Information     | 2,000            | 866                               | -1,134                                       | 2,000                | 0   |   |
| 6025                      | PERS - KID                      | 36,000           | 32,766                            | -3,234                                       | 36,000               | 0   |   |
| 6030                      | Social Security - KID           | 29,000           | 27,698                            | -1,302                                       | 29,000               | 0   |   |
| 6031                      | Medicare - KID                  | 6,200            | 6,235                             | 35   | 6,200                | 0   |   |
| 6035                      | Office/Computer Supplies        | 7,000            | 7,659                             | 659  | 7,000                | 0   |   |
| 6036                      | Postage/Delivery                | 5,000            | 4,514                             | -486   | 5,000                | 0   |   |
| 6040                      | Professional Dues               | 12,000           | 13,213                            | 1,213  | 12,000               | 0   |   |
| 6045                      | Legal Services                  | 15,000           | 11,884                            | -3,116                                       | 15,000               | 0   |   |
| 6050                      | Telephone                       | 4,500            | 4,408                             | -92  | 4,500                | 0   |   |
| 6051                      | Mobile Telephone                | 1,500            | 1,280                             | -220   | 1,500                | 0   |   |
| 6052                      | Pagers                          | 500              | 486                               | -14  | 500                  | 0   |   |
| 6053                      | Internet Service                | 1,000            | 744                               | -256   | 1,000                | 0   |   |
| 6059                      | Computer/Software Maintenance   | 12,000           | 9,190                             | -2,810                                       | 12,000               | 0   |   |
| 6061                      | Office Equipment Maintenance    | 1,000            | 778                               | -222   | 1,000                | 0   |   |
| 6065                      | Accounting Services             | 7,000            | 6,400                             | -600   | 7,000                | 0   |   |
| 6070                      | Office & Accounting Labor       | 96,550           | 88,847                            | -7,703                                       | 109,500              | 12,950  | Fully staffed this year with merit and cost of living increases |
| 6071                      | Office & Accounting Bonus       | 0                | 0                                 | 0  | 0                    | 0   |   |
| 6075                      | Professional/Contract Services  | 28,000           | 31,609                            | 3,609  | 28,000               | 0   |   |
| 6080                      | Administrative Fees             | 9,000            | 9,234                             | 234  | 9,000                | 0   |   |
| 6081                      | Permits/Fees                    | 15,000           | 10,758                            | -4,242                                       | 15,000               | 0   |   |
| 6086                      | Taxes - Sales                   | 500              | 39                                | -461   | 500                  | 0   |   |
| 6088                      | Interest Expense                | 66,628           | 66,628                            | 0  | 61,735               | -4,893  | Interest declines as installment payments are made              |
| 6120                      | Bank Service Charges            | 6,500            | 6,779                             | 279  | 6,500                | 0   |   |
| <b>Total Expenses</b>     |                                 | <b>1,328,163</b> | <b>1,307,288</b>                  | <b>-20,875</b>                               | <b>1,387,250</b>     | <b>59,087</b>                                   |   |
| <b>NET REVENUES</b>       |                                 | <b>281,837</b>   | <b>288,148</b>                    | <b>6,311</b>                                 | <b>242,750</b>       | <b>-39,087</b>                                  |   |
| <b>Other Expenditures</b> |                                 |                  |                                   |  |                      |   |   |
| 1504                      | Water Mains                     | 0                | 0                                 | 0  | 500,000              | 500,000   | East Tank Loop and Brown/Glen replacement pipeline              |
| 1505                      | Water Tunnels                   | 0                | 0                                 | 0  | 10,000               | 10,000  | House Tunnel Pipeline repair                                    |
| 1506                      | K-3 Well                        | 0                | 0                                 | 0  | 0                    | 0   |   |
| 1509                      | Wilcox Well/Wilcox Booster      | 52,000           | 0                                 | -52,000                                      | 52,000               | 0   | Carryover funds not spent last year for 50 hp booster repair    |
| 1511                      | Water Treatment Plant           | 6,000            | 5,751                             | -249   | 6,000                | 0   |   |
| 1512                      | Water Meters                    | 9,000            | 9,000                             | 0  | 9,000                | 0   |   |
| 1513                      | Electrical/Electronic Equipment | 5,000            | 5,000                             | 0  | 5,000                | 0   |   |
| 1514                      | Computer/Office Equipment       | 5,000            | 4,716                             | -284   | 5,000                | 0   |   |

## Kinneloa Irrigation District 2020 Budget Worksheet (Proposed Rates)

| Account                         | Account Description            | 2019 Budget    | 2019 FYE Forecast as of 7/31/2019 | Variance of 2019 FYE Forecast to 2019 Budget | Proposed 2020 Budget | Variance of Proposed 2020 Budget to 2019 Budget | Notes   |
|---------------------------------|--------------------------------|----------------|-----------------------------------|--|----------------------|---|---|
| 1515                            | Vehicles/Portable Equipment    | 0              | 0                                 | 0  | 90,000               | 90,000  | Replace two pickup trucks   |
| 1516                            | Water Company Facilities       | 20,000         | 20,000                            | 0  | 30,000               | 10,000  | Carryover funds not spent last year for office driveway repair                |
| 1527                            | SCADA                          | 51,000         | 42,260                            | -8,740                                       | 10,000               | -41,000   | Routine expenses this year  |
| 1528                            | Tanks and Reservoirs           | 0              | 0                                 | 0  | 0                    | 0   |   |
| 1530                            | Tools                          | 0              | 0                                 | 0  | 0                    | 0   |   |
| 2400                            | Installment Purchase Agreement | 133,574        | 133,574                           | 0  | 138,467              | 4,893   | Principle increases as installment payments are made                          |
| <b>Total Other Expenditures</b> |                                | <b>281,574</b> | <b>220,301</b>                    | <b>-61,273</b>                               | <b>855,467</b>       | <b>573,893</b>                                  |   |
| <b>NET CASH FLOW</b>            |                                | <b>263</b>     | <b>67,847</b>                     | <b>67,584</b>                                | <b>-612,717</b>      | <b>-612,980</b>                                 | Planned use of reserve funds for capital improvement and replacement projects |

# Proposed Kinneloa Irrigation District 2020 Budget

| Account               | Account Description             | 2020 Budget      |
|-----------------------|---------------------------------|------------------|
| 4000                  | Water Sales                     | 1,500,000        |
| 4015                  | Wholesale Water Sales           | 90,000           |
| 4020                  | Service Charges                 | 10,000           |
| 4035                  | Interest-Reserve Fund           | 30,000           |
| <b>Total Income</b>   |                                 | <b>1,630,000</b> |
| 5000                  | Leased Water Rights*            | 63,135           |
| 5005                  | Electricity                     | 125,000          |
| 5010                  | Maintenance Supplies            | 25,000           |
| 5011                  | Material and Labor for Installs | 10,000           |
| 5012                  | Safety Equipment                | 1,600            |
| 5015                  | Operations & Maintenance Labor  | 206,400          |
| 5016                  | Operations & Maintenance OT     | 13,500           |
| 5020                  | Stand-by Compensation           | 10,980           |
| 5022                  | Training/Certification          | 1,600            |
| 5025                  | Water Treatment/Analysis        | 22,000           |
| 5030                  | Maintenance Contractors         | 130,000          |
| 5034                  | Equipment Maintenance           | 15,000           |
| 5035                  | Vehicle Maintenance             | 15,000           |
| 5036                  | Fuel - All Equipment            | 15,000           |
| 5040                  | Equipment Rental                | 500              |
| 5045                  | Insurance-Workers Compensation  | 20,000           |
| 5046                  | Insurance-Liability             | 16,000           |
| 5048                  | Insurance-Property              | 2,500            |
| 5049                  | Insurance-Medical               | 88,500           |
| 6000                  | Engineering Services            | 47,500           |
| 6005                  | Watermaster Services            | 12,000           |
| 6015                  | Administrative Salary           | 154,000          |
| 6017                  | Administrative Travel           | 3,000            |
| 6020                  | Board of Directors Compensation | 5,600            |
| 6021                  | Administrative & Board Expenses | 1,000            |
| 6022                  | Board of Directors Election     | 12,500           |
| 6024                  | Customer/Public Information     | 2,000            |
| 6025                  | PERS - KID                      | 36,000           |
| 6030                  | Social Security - KID           | 29,000           |
| 6031                  | Medicare - KID                  | 6,200            |
| 6035                  | Office/Computer Supplies        | 7,000            |
| 6036                  | Postage/Delivery                | 5,000            |
| 6040                  | Professional Dues               | 12,000           |
| 6045                  | Legal Services                  | 15,000           |
| 6050                  | Telephone                       | 4,500            |
| 6051                  | Mobile Telephone                | 1,500            |
| 6052                  | Pagers                          | 500              |
| 6053                  | Internet Service                | 1,000            |
| 6059                  | Computer/Software Maintenance   | 12,000           |
| 6061                  | Office Equipment Maintenance    | 1,000            |
| 6065                  | Accounting Services             | 7,000            |
| 6070                  | Office & Accounting Labor       | 109,500          |
| 6075                  | Professional/Contract Services  | 28,000           |
| 6080                  | Administrative Fees             | 9,000            |
| 6081                  | Permits/Fees                    | 15,000           |
| 6086                  | Sales Tax                       | 500              |
| 6088                  | Interest Expense                | 61,735           |
| 6120                  | Bank Service Charges            | 6,500            |
| <b>Total Expenses</b> |                                 | <b>1,387,250</b> |
| <b>NET REVENUES</b>   |                                 | <b>242,750</b>   |

|   |             |
|---|-------------|
| <b>Water Sales, Units</b>                                 | 222,290     |
| <b>Usage Charge Per Unit</b>                              | \$4.56      |
| <b>Annual Usage (Commodity) Revenue</b>                   | \$1,013,641 |
| <b>Daily Service Charge</b>                               | \$2.27      |
| <b>Annual Daily Service Charge Revenue</b>                | \$486,359   |
| <b>Annual Water Sales</b>                                 | \$1,500,000 |
| <b>Wholesale Water Sales</b>                              | \$90,000    |
| <b>Other Annual Revenue</b>                               | \$40,000    |
| <b>Total Revenue</b>                                      | \$1,630,000 |
| <b>Total Expenses</b>                                     | \$1,387,250 |
| <b>Net Revenues</b>                                       | \$242,750   |
| <b>Improvement Projects and Debt Service</b>              | \$855,467   |
| <b>Annual Net Cash Flow</b>                               | -\$612,717  |
| <b>Average Monthly Charge for Low Usage (10 units)</b>    | \$112       |
| <b>Average Monthly Charge for Medium Usage (50 units)</b> | \$289       |
| <b>Average Monthly Charge for High Usage (100 units)</b>  | \$511       |
| <b>Reserve Fund Balance (Beginning)*</b>                  | \$2,088,880 |
| <b>Reserve Fund Balance (Year End)*</b>                   | \$1,476,163 |

\*Reserve fund balance includes targets of \$100,000-\$200,000 for operating reserve, \$200,000-\$400,000 for emergency repairs, \$200,000-\$400,000 for replacement of existing facilities equipment and vehicles and \$500,000-\$4,500,000 for future capital improvement projects. The total target reserve fund range is \$1,000,000-\$5,500,000.

| Rate History        |   |  |
|---------------------|---|--|
| Effective Date      | Daily Service Charge<br>(Charge Per Average Month)  | Usage Charge   |
| 12/15/1955          | No daily service charge -<br>Monthly minimum charge based<br>on meter size:<br>\$2.50 for 3/4"<br>\$3.50 for 1"<br>\$5.50 for 1.5"<br>\$6.50 for 2" | 3/4" \$2.50 1st 400 Cu. Ft. (4<br>units) 1" \$3.50 1st 600 Cu.<br>Ft. (6 units) 1 1/2" \$5.00 1st<br>800 Cu. Ft. (8 units) 2" \$6.50<br>1st 1000 Cu. Ft. (10 units)<br>\$0.18 per 100 Cu. Ft. (1 unit)<br>up to 10,000 Cu. Ft. (100<br>units) \$0.15 per 100 Cu. Ft.<br>over 10,000 Cu. Ft. (100<br>units) |
| 5/1/1958            | No daily service charge -<br>Monthly minimum charge \$5.00<br>for all meters for 1st 800 Cu. Ft. (8<br>units)                                       | \$0.18 per 100 Cu. Ft.<br>(1 unit) up to 10,000 Cu. Ft.<br>(100 units) \$0.15 per 100<br>Cu. Ft. over 10,000 Cu. Ft.<br>(100 units)  |
| 4/1/1976            | 0.1810 (\$ 5.50)  | \$0.20   |
| 4/1/1977            | 0.2140 (\$ 6.50)  | \$0.27   |
| 1/1/1989            | 0.6575 (\$20.00)  | \$0.85   |
| 1/1/1991            | 0.6575 (\$20.00)  | \$1.10   |
| 5/5/1993            | 0.6575 (\$20.00)  | \$1.60   |
| 4/5/2001            | 0.9863 (\$30.00)  | \$1.90   |
| 1/6/2003            | 0.9863 (\$30.00)  | \$1.95   |
| 1/1/2005            | 0.9863 (\$30.00)  | \$2.05   |
| 1/1/2006            | 1.1178 (\$34.00)  | \$2.30   |
| 1/1/2007            | 1.1836 (\$36.00)  | \$2.42   |
| 1/1/2009            | 1.3479 (\$41.00)  | \$2.55   |
| 1/1/2010            | 1.6110 (\$49.00)  | \$2.75   |
| 1/1/2011            | 1.6110 (\$49.00)  | \$2.95   |
| 1/1/2013            | 1.6800 (\$51.10)  | \$3.35   |
| 1/1/2015            | 1.7600 (\$53.53)  | \$3.52   |
| 1/1/2016            | 2.0200 (\$61.44)  | \$4.05   |
| 1/1/2017            | 2.0800 (\$63.27)  | \$4.17   |
| 1/1/2018            | 2.1400 (\$65.09)  | \$4.30   |
| 1/1/2019            | 2.2000 (\$66.92)  | \$4.43   |
| 1/1/2020 (Proposed) | 2.2700 (\$69.05)  | \$4.56   |

### Recommended Expenditures for Projects\*\*

|                                 |                                 |                 |
|---------------------------------|---------------------------------|-----------------|
| 1504                            | Water Mains                     | 500,000         |
| 1505                            | Water Tunnels                   | 10,000          |
| 1509                            | Wilcox Well/Wilcox Booster      | 52,000          |
| 1511                            | Water Treatment Plant           | 6,000           |
| 1512                            | Water Meters                    | 9,000           |
| 1513                            | Electrical/Electronic Equipment | 5,000           |
| 1514                            | Computer/Office Equipment       | 5,000           |
| 1515                            | Vehicles/Portable Equipment     | 90,000          |
| 1516                            | Water Company Facilities        | 30,000          |
| 1527                            | SCADA                           | 10,000          |
| 2400                            | Installment Purchase Agreement  | 138,467         |
| <b>Total Other Expenditures</b> |                                 | <b>855,467</b>  |
| <b>NET CASH FLOW</b>            |                                 | <b>-612,717</b> |

Estimate based on prior projects. Competitive bidding will determine actual cost.  
House Tunnel pipeline repair  
Replace 50 hp booster pump and motor and sandblast and paint pump stand  
Eucalyptus Cl2 generator replacement  
Based on meter replacement rate and transmitters reaching end of 10-year life cycle  
Normal replacements  
Normal replacements  
Replace two pickup trucks  
Removal, replacement and widening of office driveway  
Minor upgrades in equipment and software  
Annual principle payment on project loan  
  
Planned use of reserve funds for capital improvement and replacement projects

\* Optional expense based on need for supplemental water and negotiation for leased water rights

\*\*Major projects will be prioritized during the year based on urgency and available funds and presented to the Board of Directors for approval.



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# Memo

Date: August 12, 2019

To: Board of Directors

From: Mel Matthews

Subject: Advanced Meter Infrastructure

Recommended Action: Information to answer questions and receive feedback from the Board

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## **Background**

Over 10 years ago, the KID started installing transmitters on customer water meters to allow for automated meter reading using a drive-by radio receiver. This system has reduced meter reading from a multi-day task to a few hours on a single day and has eliminated errors in the process. The data received has also alerted us to leaks on the customer's side of the meter. Although this level of automation has been highly successful, it has not provided the KID or the customer with real-time usage or instant notification when leaks or high usage occur.

Since the KID installed the current system, the meter industry has developed new products that include Automated Meter Reading (AMR) as well as a real-time data collection device that provides an Advanced Meter Infrastructure (AMI) to provide Advanced Meter Analytics (AMA) for the water agency and the customer. This capability is provided by installing a new transmitter that uses the cellular network to transmit the data. The cost of the transmitter is about the same as our current transmitters, but there is a continuing cost for the data collection via the cellular network. In addition, software would be required to provide integration of the data into a KID and/or customer dashboard and to import the data into our billing system.

## **Consumer Devices**

In parallel to the development of the AMI devices for the water utilities, several manufactures developed inline devices on the customer's side of the meter to collect and transmit real-time data directly to the customer. These devices are very expensive and require professional installation by a plumber.

In 2014, in response to the California drought, three Cal Poly grads, developed the Flume Water Monitor to detect leaks and track water usage in real time. This is a customer-installed device although many water companies are participating in the purchase and installation of the device. The kit consists of a WATER SENSOR that straps around the existing water

meter register and sends real-time water usage information to the BRIDGE. The Flume Bridge connects to the customer's Wi-Fi and sends water data up to the Flume Cloud, bridging the connection between the Flume water sensor and the desktop or mobile app. The FLUME APP notifies the customer of leaks anywhere on the property and allows the customer to view water usage from anywhere using a mobile phone or computer connected to the Internet. I will demonstrate the device and the app at the August 20th meeting.

### **Summary and Conclusion**

In order to provide a higher level of information and control of water usage, encourage conservation and provide a method for detecting leaks before they cause damage or an unexpected high bill, the KID must upgrade its infrastructure to AMI and/or encourage the customer to install a device such as the Flume or similar products.

Many of the originally installed transmitters are reaching their 10-year life and will need to be replaced either with the current AMR radio transmitters with a 20-year life or with the AMI cellular transmitters. The purchase decision will have the following physical and financial implications:

1. The new AMR radio transmitter uses a different frequency and will require new hardware and software to receive data from both the existing transmitters and the new transmitters. This would be a relatively low one-time cost and covered within the budget.
2. If the KID continues to use AMR radio transmitters, a drive-by reading will still be necessary and will not provide real-time usage or leak notifications. History of water usage on an hourly basis would be available by downloading the data from the transmitter upon customer request. This procedure requires a field visit to collect data. Continuing to use AMR radio transmitters is the least costly solution for the KID.
3. The AMI cellular transmitters might not work in all locations due to reception problems. Some field manual meter reading might be required.
4. The AMI cellular transmitters would have a continuing cost for using the cellular network, but no drive-by reading would be required if installed on 100% of our meters.
5. The AMI cellular system would provide real-time usage and leak notifications to the customer and to the KID. However, converting 100% of the system to AMI is the costliest solution for the KID.
6. If the AMI cellular transmitters only were used to replace failed AMR transmitters, drive-by meter reading would continue as usual. The transition to 100% AMI would take up to ten years. Two interfaces to the billing system would be required to transfer the data to the billing computer.
7. If the AMR radio-only system is continued, the KID could recommend installation of the Flume (or similar) device to customers on an optional basis, and to increase acceptance by the customer, the KID (or FMWD or MWD) could offer a rebate program. This is the least costly way of providing real-time water usage and leak detection to customers who opt in. However, it will be a challenge to gain significant penetration of devices at the current full retail price.

Since the decision on implementing a new infrastructure has significant physical and financial implications, I have written this memo to provide the information needed for further discussion before recommending a course of action. However, it is clear to me that our customers need real-time data to reduce excessive usage and stop leaks. Our once-a-month reading does not provide timely information to avoid high water bills.

Since our inventory of replacement water meters with the integrated AMR radio is extremely low, a decision will need to be made soon whether to transition to the AMI system for all future installations.