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Demand Projections

| | CY | Meters | Demand in Acre Feet | | | | Increase | | |
|---|------|--------|---------------------|-------|--------------|--------|---|--------|------------|
| | | | M&I | AG | Construction | Total | # of Meters | Meter% | M&I Demand |
| | 2007 | 19,920 | 17,595 | 2,438 | 465 | 20,499 | | | |
| | 2008 | 20,329 | 17,121 | 1,685 | 252 | 19,058 | 409 | 2.1% | -2.7% |
| A | 2009 | 20,510 | 14,985 | 1,607 | 62 | 16,655 | 181 | 0.9% | -12.5% |
| c | 2010 | 20,522 | 13,250 | 1,176 | 41 | 14,466 | 12 | 0.1% | -11.6% |
| t | 2011 | 20,623 | 13,532 | 1,062 | 40 | 14,634 | 101 | 0.5% | 2.1% |
| u | 2012 | 20,826 | 14,109 | 1,342 | 38 | 15,489 | 203 | 1.0% | 4.3% |
| a | 2013 | 21,060 | 14,399 | 1,535 | 50 | 15,984 | 234 | 1.1% | 2.1% |
| l | 2014 | 21,295 | 14,994 | 1,455 | 74 | 16,522 | 235 | 1.1% | 4.1% |
| | 2015 | 21,322 | 11,398 | 991 | 37 | 12,426 | 27 | 0.1% | -24.0% |
| | 2016 | 21,401 | 12,236 | 909 | 145 | 13,290 | 79 | 0.4% | 7.4% |
| P r o j e c t e d | 2017 | 21,460 | 12,600 | 900 | 100 | 13,600 | <i>assumptions: 3% increase in M&I - 0.3% growth, 2.7% behavior; 1% decline in Ag; 30% decrease in construction water</i> | | |
| | 2018 | 21,530 | 13,000 | 900 | 100 | 14,000 | <i>assumptions: 3% increase in M&I - 0.3% growth, 2.7% behavior; Ag and construction flat</i> | | |
| | 2019 | 21,590 | 13,400 | 900 | 100 | 14,400 | <i>assumptions: 3% increase in M&I - 0.3% growth, 2.7% behavior; Ag and construction flat</i> | | |
| | 2020 | 21,660 | 13,800 | 900 | 100 | 14,800 | <i>assumptions: 3% increase in M&I - 0.3% growth, 2.7% behavior; Ag and construction flat</i> | | |
| | 2021 | 21,720 | 14,200 | 900 | 100 | 15,200 | <i>assumptions: 3% increase in M&I - 0.3% growth, 2.7% behavior; Ag and construction flat</i> | | |
| | 2022 | 21,790 | 14,600 | 900 | 100 | 15,600 | <i>assumptions: 3% increase in M&I - 0.3% growth, 2.7% behavior; Ag and construction flat</i> | | |

Supply Distribution

Unbilled % assumption 5.6%

| | | OMWD | SDCWA | Desal | | Total |
|------|--------------------|-------|-------|-----------|--------|-------|
| | | | | Committed | Excess | |
| 2016 | January thru June | 1,753 | 2,736 | 1,750 | - | 6,239 |
| 2016 | July thru December | 2,146 | 4,104 | 1,750 | - | 8,000 |
| 2017 | January thru June | 1,753 | 2,257 | 1,750 | - | 5,760 |
| 2017 | July thru December | 2,146 | 4,754 | 1,750 | - | 8,650 |
| 2018 | January thru June | 1,753 | 2,427 | 1,750 | - | 5,930 |
| 2018 | July thru December | 2,146 | 5,004 | 1,750 | - | 8,900 |
| 2019 | January thru June | 1,753 | 2,451 | 1,750 | 146 | 6,100 |
| 2019 | July thru December | 2,146 | 5,254 | 1,750 | - | 9,150 |
| 2020 | January thru June | 1,753 | 2,475 | 1,750 | 292 | 6,270 |
| 2020 | July thru December | 2,146 | 5,514 | 1,750 | - | 9,410 |
| 2021 | January thru June | 1,753 | 2,500 | 1,750 | 437 | 6,440 |
| 2021 | July thru December | 2,146 | 5,764 | 1,750 | - | 9,660 |
| 2022 | January thru June | 1,753 | 2,524 | 1,750 | 583 | 6,610 |
| 2022 | July thru December | 2,146 | 6,024 | 1,750 | - | 9,920 |

Tier Accumulation

| 2018 - Base Year Meter Size | Tier 1 | | Tier 2 | | Use in AF | |
|--------------------------------|----------------------------------|--------------|--------|--------------|--------------|---------------|
| | Limit | Use in AF | Limit | Use in AF | Tier 3 | Total |
| < 1" | 6 | 2,922 | 21 | 3,031 | 723 | 6,676 |
| 1" | 16 | 343 | 78 | 510 | 201 | 1,054 |
| 1.5" | 43 | 566 | 196 | 701 | 289 | 1,556 |
| 2" | 85 | 829 | 335 | 1,104 | 493 | 2,426 |
| > 2" | 430 | 535 | 1,190 | 515 | 238 | 1,288 |
| AG | | - | | 900 | - | 900 |
| Construction | | - | | - | 100 | 100 |
| TOTAL | | 5,195 | | 6,761 | 2,044 | 14,000 |
| | Composition of remaining tiers | | | 76.8% | 23.2% | 100% |
| | Historical mid/high tier split | | | 65.0% | 35.0% | 100% |
| | Product of factors | | | 49.9% | 8.1% | |
| | Allocation of remaining increase | | | 86.0% | 14.0% | 100% |

Assume Tier 1 increase at growth assumption

Units of Service and Peaking Factors

Assumed growth 0.3%

| Meter Size | Active Meters | | Avg Annual Increase | Projected Average Meters | | | | |
|------------------|---------------|---------------|---------------------|--------------------------|---------------|---------------|---------------|---------------|
| | 12/31/2011 | 12/31/2016 | | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 |
| < 1" | 18,488 | 19,149 | 0.72% | 19,166 | 19,179 | 19,192 | 19,205 | 19,218 |
| 1" | 915 | 1,024 | 2.38% | 1,067 | 1,098 | 1,129 | 1,160 | 1,192 |
| 1.5" | 662 | 689 | 0.82% | 704 | 714 | 724 | 734 | 745 |
| 2" | 491 | 511 | 0.81% | 526 | 536 | 546 | 556 | 567 |
| 3" | 62 | 63 | 0.32% | 64 | 65 | 66 | 67 | 68 |
| 4" | 17 | 17 | 0.00% | 17 | 17 | 17 | 17 | 17 |
| 6" | 15 | 15 | 0.00% | 15 | 15 | 15 | 15 | 15 |
| 10" | 1 | 1 | 0.00% | 1 | 1 | 1 | 1 | 1 |
| Total | 20,651 | 21,469 | | 21,560 | 21,625 | 21,690 | 21,755 | 21,823 |
| Additional units | | 13,659 | | 13,720 | 13,761 | 13,802 | 13,843 | 13,885 |

| | | | | | | | | |
|------------|-------|--|-------|-------|-------|-------|-------|--|
| Fire lines | 486 | | | | | | | |
| inches | 3,169 | | 3,183 | 3,193 | 3,203 | 3,213 | 3,223 | |

| 5/8" meters | Meter Size | Meter Equivalents per meter | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 | |
|--|-------------------------------|-----------------------------|----------|----------|----------|----------|----------|---------|
| 18,199 | < 1" | 1.0 | 19,166.0 | 19,179.0 | 19,192.0 | 19,205.0 | 19,218.0 | |
| <i>Assumes all growth in <1" meters will be 3/4" meters</i> | 1" | 1.5 | 1,600.5 | 1,647.0 | 1,693.5 | 1,740.0 | 1,788.0 | |
| | Temporary Construction Meters | 1.5" | 4.0 | 2,816.0 | 2,856.0 | 2,896.0 | 2,936.0 | 2,980.0 |
| | | 2" | 6.5 | 3,419.0 | 3,484.0 | 3,549.0 | 3,614.0 | 3,685.5 |
| | | 3" | 10.0 | 640.0 | 650.0 | 660.0 | 670.0 | 680.0 |
| | | 4" | 15.0 | 255.0 | 255.0 | 255.0 | 255.0 | 255.0 |
| | | 6" | 30.0 | 450.0 | 450.0 | 450.0 | 450.0 | 450.0 |
| | | 10" | 70.0 | 70.0 | 70.0 | 70.0 | 70.0 | 70.0 |
| Additional multi-family units | 0.3 | | 4,116.0 | 4,128.3 | 4,140.6 | 4,152.9 | 4,165.5 | |

Units of Service

| | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|
| Per Month | 32,532.5 | 32,719.3 | 32,906.1 | 33,092.9 | 33,292.0 |
| Per Year | 390,390.0 | 392,631.6 | 394,873.2 | 397,114.8 | 399,504.0 |

Peaking Factors

| Master Plan | Factor |
|----------------------|--------|
| Average Daily Demand | 1.0 |
| Maximum Day Demand | 1.9 |
| Maximum Hour Demand | 3.0 |

| Budget Input | | | | | |
|--------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | <u>FY 17-18</u> | <u>FY 18-19</u> | <u>FY 19-20</u> | <u>FY 20-21</u> | <u>FY 21-22</u> |
| Operating Revenues | | | | | |
| Water Sales | \$24,866,000 | \$29,191,000 | \$31,762,000 | \$34,496,000 | \$37,120,000 |
| Ready to Serve | 13,605,000 | 14,128,000 | 15,124,000 | 15,560,000 | 15,919,000 |
| Pumping Charges | 250,000 | 340,000 | 440,000 | 460,000 | 480,000 |
| Interest | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| Other | 675,000 | 694,000 | 713,000 | 732,000 | 752,000 |
| | <u>39,401,000</u> | <u>44,358,000</u> | <u>48,044,000</u> | <u>51,253,000</u> | <u>54,276,000</u> |
| Operating Expenses | | | | | |
| Water Purchases | 28,531,000 | 30,454,000 | 32,908,000 | 35,279,000 | 37,656,000 |
| Pumping | 677,000 | 801,000 | 950,000 | 1,145,000 | 1,360,000 |
| Water Quality | 175,000 | 187,000 | 200,000 | 216,000 | 229,000 |
| Water Treatment | 447,000 | 474,000 | 501,000 | 535,000 | 555,000 |
| Tanks & Reservoirs | 416,000 | 429,000 | 444,000 | 478,000 | 489,000 |
| Transmission & Dist. | 1,835,000 | 2,048,000 | 2,315,000 | 2,799,000 | 3,186,000 |
| Services | 245,000 | 273,000 | 307,000 | 390,000 | 430,000 |
| Meters | 629,000 | 655,000 | 680,000 | 726,000 | 734,000 |
| Backflow Prevention | 64,000 | 66,000 | 68,000 | 69,000 | 70,000 |
| Customer Accounts | 614,000 | 641,000 | 679,000 | 721,000 | 729,000 |
| Equipment & Vehicles | 304,000 | 301,000 | 312,000 | 330,000 | 343,000 |
| Building & Grounds | 362,000 | 357,000 | 369,000 | 384,000 | 390,000 |
| Engineering | 1,388,000 | 1,443,000 | 1,507,000 | 1,439,000 | 1,452,000 |
| Safety & Reg. Affairs | 261,000 | 272,000 | 282,000 | 295,000 | 296,000 |
| Information Technology | 1,003,000 | 1,046,000 | 1,093,000 | 1,148,000 | 1,186,000 |
| General & Admin. | 2,812,000 | 2,979,000 | 3,186,000 | 3,313,000 | 3,511,000 |
| | <u>39,763,000</u> | <u>42,426,000</u> | <u>45,801,000</u> | <u>49,267,000</u> | <u>52,616,000</u> |
| Operating Income | <u>\$ (362,000)</u> | <u>\$ 1,932,000</u> | <u>\$ 2,243,000</u> | <u>\$ 1,986,000</u> | <u>\$ 1,660,000</u> |
| Other Revenue Detail | | | | | |
| Late/Lock Charges | \$ 387,000 | \$ 398,000 | \$ 409,000 | \$ 420,000 | \$ 432,000 |
| Backflow Fees | 83,000 | 85,000 | 87,000 | 89,000 | 91,000 |
| Engineering Fees | 31,000 | 32,000 | 33,000 | 34,000 | 35,000 |
| Misc | 174,000 | 179,000 | 184,000 | 189,000 | 194,000 |
| | <u>\$ 675,000</u> | <u>\$ 694,000</u> | <u>\$ 713,000</u> | <u>\$ 732,000</u> | <u>\$ 752,000</u> |
| Conservation in G&A | | | | | |
| Salaries | \$ 309,326 | \$ 316,796 | \$ 329,047 | \$ 343,308 | \$ 355,745 |
| Benefits | 187,761 | 192,295 | 199,732 | 208,388 | 215,937 |
| Materials and service | 77,000 | 79,000 | 81,000 | 83,000 | 85,000 |
| | <u>\$ 574,087</u> | <u>\$ 588,091</u> | <u>\$ 609,779</u> | <u>\$ 634,696</u> | <u>\$ 656,682</u> |
| Nonoperating Revenue | | | | | |
| Property Tax | \$ 1,969,000 | \$ 1,994,000 | \$ 2,020,000 | \$ 2,046,000 | \$ 2,073,000 |
| Investment Earnings | \$ 307,000 | \$ 141,000 | \$ 293,000 | \$ 312,000 | \$ 346,000 |
| Capital Replacement | \$ 4,435,700 | \$ 3,900,200 | \$ 2,036,100 | \$ 2,530,000 | \$ - |

Miscellaneous Input and Assumptions

| | <u>CY 2017</u> | <u>CY 2018</u> | <u>CY 2019</u> | <u>CY 2020</u> | <u>CY 2021</u> | <u>CY 2022</u> |
|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Water Cost per AF | | | | | | |
| OMWD | \$ 1,197 | \$ 1,249 | \$ 1,361 | \$ 1,445 | \$ 1,540 | \$ 1,614 |
| SDCWA | \$ 1,255 | \$ 1,309 | \$ 1,426 | \$ 1,514 | \$ 1,613 | \$ 1,691 |
| SDCWA Fixed Charges | | \$ 5,848,164 | \$ 6,370,000 | \$ 6,762,000 | \$ 7,206,000 | \$ 7,553,000 |
| SDCWA ME IAC charge | | \$ 3.01 | \$ 3.28 | \$ 3.48 | \$ 3.71 | \$ 3.89 |
| | <u>FY 17-18</u> | <u>FY 18-19</u> | <u>FY 19-20</u> | <u>FY 20-21</u> | <u>FY 21-22</u> | <u>FY 22-23</u> |
| Desal - committed | \$ 2,510 | \$ 2,594 | \$ 2,679 | \$ 2,769 | \$ 2,862 | \$ 2,960 |
| Desal - excess | \$ 733 | \$ 767 | \$ 802 | \$ 840 | \$ 879 | \$ 920 |

Meter Department Effort

| | |
|---------------------|-------------|
| Meter reads/rereads | 27% |
| Late/Lock | 40% |
| Maintenance | 33% |
| | <u>100%</u> |

Water System Plant, Net of Depreciation

| | |
|---------------------------|-----------------------|
| Pumping | \$ 7,364,983 |
| Water Treatment | 95,357 |
| Tanks & Reservoirs | 54,313,776 |
| Transmission&Distribution | 50,658,198 |
| Services | 13,438,304 |
| Meters | 5,067,418 |
| General Plant | <u>8,987,362</u> |
| | <u>\$ 139,925,398</u> |

Allocation assumption for operating expenses not directly associated with water delivery

| | | |
|----------|------|-------|
| Fixed | 100% | #REF! |
| Variable | 0% | #REF! |

Calendar Year Conversion

| | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 |
|--------------------------------|---------------------|---------------------|---------------------|---------------------|-----------------------|
| Operating Revenues | | | | | |
| Water Sales | 27,028,500 | 30,476,500 | 33,129,000 | 35,808,000 | 37,120,000 |
| Ready to Serve | 13,866,500 | 14,626,000 | 15,342,000 | 15,739,500 | 15,919,000 |
| Pumping Charges | 295,000 | 390,000 | 450,000 | 470,000 | 480,000 |
| Interest | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 |
| Other | 684,500 | 703,500 | 722,500 | 742,000 | 752,000 |
| | <u>41,879,500</u> | <u>45,857,000</u> | <u>49,429,000</u> | <u>51,353,000</u> | <u>51,353,000</u> |
| Operating Expenses | | | | | |
| Water Purchases | 29,492,500 | 31,681,000 | 34,093,500 | 36,467,500 | 37,656,000 |
| Pumping | 739,000 | 875,500 | 1,047,500 | 1,252,500 | 1,360,000 |
| Water Quality | 181,000 | 193,500 | 208,000 | 222,500 | 229,000 |
| Water Treatment | 460,500 | 487,500 | 518,000 | 545,000 | 555,000 |
| Tanks & Reservoirs | 422,500 | 436,500 | 461,000 | 483,500 | 489,000 |
| Transmission & Dist. Services | 1,941,500 | 2,181,500 | 2,557,000 | 2,992,500 | 3,186,000 |
| Meters | 259,000 | 290,000 | 348,500 | 410,000 | 430,000 |
| Backflow Prevention | 642,000 | 667,500 | 703,000 | 730,000 | 734,000 |
| Customer Accounts | 65,000 | 67,000 | 68,500 | 69,500 | 70,000 |
| Equipment & Vehicles | 627,500 | 660,000 | 700,000 | 725,000 | 729,000 |
| Building & Grounds | 302,500 | 306,500 | 321,000 | 336,500 | 343,000 |
| Engineering | 359,500 | 363,000 | 376,500 | 387,000 | 390,000 |
| Safety & Reg. Affairs | 1,415,500 | 1,475,000 | 1,473,000 | 1,445,500 | 1,452,000 |
| Information Technology | 266,500 | 277,000 | 288,500 | 295,500 | 296,000 |
| General & Admin. | 1,024,500 | 1,069,500 | 1,120,500 | 1,167,000 | 1,186,000 |
| | <u>2,895,500</u> | <u>3,082,500</u> | <u>3,249,500</u> | <u>3,412,000</u> | <u>3,511,000</u> |
| | <u>41,094,500</u> | <u>44,113,500</u> | <u>47,534,000</u> | <u>50,941,500</u> | <u>52,616,000</u> |
| Operating Income | <u>\$ 785,000</u> | <u>\$ 1,743,500</u> | <u>\$ 1,895,000</u> | <u>\$ 411,500</u> | <u>\$ (1,263,000)</u> |
| Other Revenue Detail | | | | | |
| Late/Lock Charges | \$ 392,500 | \$ 403,500 | \$ 414,500 | \$ 426,000 | \$ 432,000 |
| Backflow Fees | 84,000 | 86,000 | 88,000 | 90,000 | 91,000 |
| Engineering Fees | 31,500 | 32,500 | 33,500 | 34,500 | 35,000 |
| Misc | 176,500 | 181,500 | 186,500 | 191,500 | 194,000 |
| | <u>\$ 684,500</u> | <u>\$ 703,500</u> | <u>\$ 722,500</u> | <u>\$ 742,000</u> | <u>\$ 752,000</u> |
| SDCWA Fixed Charges | <u>\$ 6,109,082</u> | <u>\$ 6,566,000</u> | <u>\$ 6,984,000</u> | <u>\$ 7,379,500</u> | <u>\$ 7,553,000</u> |
| Conservation in G&A | | | | | |
| Salaries | 313,061 | 322,922 | 336,178 | 349,527 | 355,745 |
| Benefits | 190,028 | 196,013 | 204,060 | 212,163 | 215,937 |
| Materials and service | 78,000 | 80,000 | 82,000 | 84,000 | 85,000 |
| | <u>\$ 581,089</u> | <u>\$ 598,935</u> | <u>\$ 622,237</u> | <u>\$ 645,689</u> | <u>\$ 656,682</u> |
| Nonoperating Revenue | | | | | |
| Property Tax | \$ 1,981,500 | \$ 2,007,000 | \$ 2,033,000 | \$ 2,059,500 | \$ 2,073,000 |
| Investment Earnings | \$ 224,000 | \$ 217,000 | \$ 302,500 | \$ 329,000 | \$ 346,000 |
| Capital Replacement | <u>\$ 4,167,950</u> | <u>\$ 2,968,150</u> | <u>\$ 2,283,050</u> | <u>\$ 1,265,000</u> | <u>\$ -</u> |

Peaking Factors and Tier Allocations

| Master Plan | Factor |
|------------------|--------|
| Avg Daily Demand | 1.0 |
| Max Day Demand | 1.9 |
| Max Hour Demand | 3.0 |

Per VWD Master Plan: Maximum Day Demand Factor is 1.9 times Average Daily Demand. Maximum Hourly Demand is 3 times Average Daily Demand.

| | FY 2017/18 Allocation | | | | CY 2018 Allocation | | | |
|---------------------------|-----------------------|--------|--------|--------|--------------------|--------|--------|--------|
| | Total | Tier1 | Tier2 | Tier3 | Total | Tier1 | Tier2 | Tier3 |
| Water Demand in Acre Feet | 13,760 | 5,187 | 6,561 | 2,012 | 14,000 | 5,195 | 6,761 | 2,044 |
| Water Demand Percent | 100.00% | 37.70% | 47.68% | 14.62% | 100.00% | 37.11% | 48.29% | 14.60% |

Facilities designed to meet max day demand

E.g., Storage, treatment, pumping

| | | | | | | | | |
|--|--------|---------------|---------------|---------------|--------|---------------|---------------|---------------|
| Base = $(1.0/1.9) \times 100 =$ | 52.63% | 19.85% | 25.09% | 7.69% | 52.63% | 19.53% | 25.42% | 7.68% |
| Max Day = $(1.9 - 1.0)/1.9 \times 100 =$ | 47.37% | - | 36.25% | 11.12% | 47.37% | - | 36.37% | 11.00% |
| | | <u>19.85%</u> | <u>61.34%</u> | <u>18.81%</u> | | <u>19.53%</u> | <u>61.79%</u> | <u>18.68%</u> |

Facilities designed to meet max hour demand

E.g., Transmission and distribution

| | | | | | | | | |
|--|--------|---------------|---------------|---------------|--------|---------------|---------------|---------------|
| Base = $(1.0/3) \times 100 =$ | 33.33% | 12.57% | 15.89% | 4.87% | 33.33% | 12.36% | 16.10% | 4.87% |
| Max Day = $(1.9 - 1.0)/3 \times 100 =$ | 30.00% | - | 22.96% | 7.04% | 30.00% | - | 23.04% | 6.96% |
| Max Hr = $(3 - 1.9)/3 \times 100 =$ | 36.67% | - | - | 36.67% | 36.67% | - | - | 36.67% |
| | | <u>12.57%</u> | <u>38.85%</u> | <u>48.58%</u> | | <u>12.36%</u> | <u>39.14%</u> | <u>48.50%</u> |

| | FY 2018/19 Allocation | | | | CY 2019 Allocation | | | |
|---------------------------|-----------------------|--------|--------|--------|--------------------|--------|--------|--------|
| | Total | Tier1 | Tier2 | Tier3 | Total | Tier1 | Tier2 | Tier3 |
| Water Demand in Acre Feet | 14,160 | 5,203 | 6,891 | 2,066 | 14,400 | 5,211 | 7,091 | 2,098 |
| Water Demand Percent | 100.00% | 36.74% | 48.67% | 14.59% | 100.00% | 36.19% | 49.24% | 14.57% |

Facilities designed to meet max day demand

E.g., Storage, treatment, pumping

| | | | | | | | | |
|--|--------|---------------|---------------|---------------|--------|---------------|---------------|---------------|
| Base = $(1.0/1.9) \times 100 =$ | 52.63% | 19.33% | 25.62% | 7.68% | 52.63% | 19.04% | 25.92% | 7.67% |
| Max Day = $(1.9 - 1.0)/1.9 \times 100 =$ | 47.37% | - | 36.44% | 10.93% | 47.37% | - | 36.55% | 10.82% |
| | | <u>19.33%</u> | <u>62.06%</u> | <u>18.61%</u> | | <u>19.04%</u> | <u>62.47%</u> | <u>18.49%</u> |

Facilities designed to meet max hour demand

E.g., Transmission and distribution

| | | | | | | | | |
|--|--------|---------------|---------------|---------------|--------|---------------|---------------|---------------|
| Base = $(1.0/3) \times 100 =$ | 33.33% | 12.25% | 16.22% | 4.86% | 33.33% | 12.06% | 16.41% | 4.86% |
| Max Day = $(1.9 - 1.0)/3 \times 100 =$ | 30.00% | - | 23.08% | 6.92% | 30.00% | - | 23.15% | 6.85% |
| Max Hr = $(3 - 1.9)/3 \times 100 =$ | 36.67% | - | - | 36.67% | 36.67% | - | - | 36.67% |
| | | <u>12.25%</u> | <u>39.30%</u> | <u>48.45%</u> | | <u>12.06%</u> | <u>39.56%</u> | <u>48.38%</u> |

Peaking Factors and Allocations to Tiers

| | FY 2019/20 Allocation | | | | CY 2020 Allocation | | | |
|---------------------------|-----------------------|--------|--------|--------|--------------------|--------|--------|--------|
| | Total | Tier1 | Tier2 | Tier3 | Total | Tier1 | Tier2 | Tier3 |
| Water Demand in Acre Feet | 14,560 | 5,219 | 7,221 | 2,120 | 14,800 | 5,227 | 7,421 | 2,152 |
| Water Demand Percent | 100.00% | 35.85% | 49.59% | 14.56% | 100.00% | 35.32% | 50.14% | 14.54% |

Facilities designed to meet max day demand

E.g., Storage, treatment, pumping

| | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Base = $(1.0/1.9) \times 100 =$ | 52.63% | 18.87% | 26.10% | 7.66% | 52.63% | 18.59% | 26.39% | 7.65% |
| Max Day = $(1.9 - 1.0)/1.9 \times 100 =$ | 47.37% | - | 36.62% | 10.75% | 47.37% | - | 36.72% | 10.65% |
| | | 18.87% | 62.72% | 18.41% | | 18.59% | 63.11% | 18.30% |

Facilities designed to meet max hour demand

E.g., Transmission and distribution

| | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Base = $(1.0/3) \times 100 =$ | 33.33% | 11.95% | 16.53% | 4.85% | 33.33% | 11.77% | 16.71% | 4.85% |
| Max Day = $(1.9 - 1.0)/3 \times 100 =$ | 30.00% | - | 23.19% | 6.81% | 30.00% | - | 23.26% | 6.74% |
| Max Hr = $(3 - 1.9)/3 \times 100 =$ | 36.67% | - | - | 36.67% | 36.67% | - | - | 36.67% |
| | | 11.95% | 39.72% | 48.33% | | 11.77% | 39.97% | 48.26% |

| | FY 2020/21 Allocation | | | | CY 2021 Allocation | | | |
|---------------------------|-----------------------|--------|--------|--------|--------------------|--------|--------|--------|
| | Total | Tier1 | Tier2 | Tier3 | Total | Tier1 | Tier2 | Tier3 |
| Water Demand in Acre Feet | 14,960 | 5,235 | 7,551 | 2,174 | 15,200 | 5,243 | 7,751 | 2,206 |
| Water Demand Percent | 100.00% | 35.00% | 50.47% | 14.53% | 100.00% | 34.50% | 50.99% | 14.51% |

Facilities designed to meet max day demand

E.g., Storage, treatment, pumping

| | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Base = $(1.0/1.9) \times 100 =$ | 52.63% | 18.42% | 26.56% | 7.65% | 52.63% | 18.15% | 26.84% | 7.64% |
| Max Day = $(1.9 - 1.0)/1.9 \times 100 =$ | 47.37% | - | 36.78% | 10.59% | 47.37% | - | 36.88% | 10.49% |
| | | 18.42% | 63.34% | 18.24% | | 18.15% | 63.72% | 18.13% |

Facilities designed to meet max hour demand

E.g., Transmission and distribution

| | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Base = $(1.0/3) \times 100 =$ | 33.33% | 11.67% | 16.82% | 4.84% | 33.33% | 11.50% | 16.99% | 4.84% |
| Max Day = $(1.9 - 1.0)/3 \times 100 =$ | 30.00% | - | 23.29% | 6.71% | 30.00% | - | 23.35% | 6.65% |
| Max Hr = $(3 - 1.9)/3 \times 100 =$ | 36.67% | - | - | 36.67% | 36.67% | - | - | 36.67% |
| | | 11.67% | 40.11% | 48.22% | | 11.50% | 40.34% | 48.16% |

| | FY 2021/22 Allocation | | | | CY 2022 Allocation | | | |
|---------------------------|-----------------------|--------|--------|--------|--------------------|--------|--------|--------|
| | Total | Tier1 | Tier2 | Tier3 | Total | Tier1 | Tier2 | Tier3 |
| Water Demand in Acre Feet | 15,360 | 5,251 | 7,881 | 2,228 | 15,600 | 5,259 | 8,081 | 2,260 |
| Water Demand Percent | 100.00% | 34.18% | 51.31% | 14.51% | 100.00% | 33.71% | 51.80% | 14.49% |

Facilities designed to meet max day demand

E.g., Storage, treatment, pumping

| | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Base = $(1.0/1.9) \times 100 =$ | 52.63% | 17.99% | 27.00% | 7.64% | 52.63% | 17.74% | 27.26% | 7.63% |
| Max Day = $(1.9 - 1.0)/1.9 \times 100 =$ | 47.37% | - | 36.93% | 10.44% | 47.37% | - | 37.02% | 10.35% |
| | | 17.99% | 63.93% | 18.08% | | 17.74% | 64.28% | 17.98% |

Facilities designed to meet max hour demand

E.g., Transmission and distribution

| | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Base = $(1.0/3) \times 100 =$ | 33.33% | 11.39% | 17.10% | 4.84% | 33.33% | 11.24% | 17.26% | 4.83% |
| Max Day = $(1.9 - 1.0)/3 \times 100 =$ | 30.00% | - | 23.39% | 6.61% | 30.00% | - | 23.44% | 6.56% |
| Max Hr = $(3 - 1.9)/3 \times 100 =$ | 36.67% | - | - | 36.67% | 36.67% | - | - | 36.67% |
| | | 11.39% | 40.49% | 48.12% | | 11.24% | 40.70% | 48.06% |

Revenue Offsets

The District collects revenues and surcharges not directly related to resources required to provide service and water. These revenues are noted in the columns below and deducted from the Revenue Requirement in the Cost Allocation spreadsheet.

| CY 2018 | Amount | | | Other | | | | Property Tax | Investment Earnings | Total |
|---------------------|---------------|------------------|----------------|-------------------|-----------------|------------------|------------------|--------------------|---------------------|--------------------|
| | Before Offset | Pumping Charges | Interest | Late/Lock Charges | Backflow Fees | Engineering Fees | Misc | | | |
| EXPENSES | | | | | | | | | | |
| Pumping | \$ 739,000 | \$295,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 295,000 |
| Meters | 642,000 | - | - | 256,800 | 19,000 | - | - | - | - | 275,800 |
| Backflow Prevention | 65,000 | - | - | - | 65,000 | - | - | - | - | 65,000 |
| Customer Accounts | 627,500 | - | - | 135,700 | - | - | - | - | - | 135,700 |
| Engineering | 1,415,500 | - | - | - | - | 31,500 | - | - | - | 31,500 |
| General & Admin. | 2,895,500 | - | 5,000 | - | - | - | 176,500 | - | - | 181,500 |
| Capital Replacement | 2,136,830 | - | - | - | - | - | - | 1,981,500 | 224,000 | 2,205,500 |
| | | <u>\$295,000</u> | <u>\$5,000</u> | <u>\$392,500</u> | <u>\$84,000</u> | <u>\$31,500</u> | <u>\$176,500</u> | <u>\$1,981,500</u> | <u>\$224,000</u> | <u>\$3,190,000</u> |
| CY 2019 | Amount | | | Other | | | | Property Tax | Investment Earnings | Total |
| | Before Offset | Pumping Charges | Interest | Late/Lock Charges | Backflow Fees | Engineering Fees | Misc | | | |
| EXPENSES | | | | | | | | | | |
| Pumping | \$ 875,500 | \$390,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 390,000 |
| Meters | 667,500 | - | - | 267,000 | 19,000 | - | - | - | - | 286,000 |
| Backflow Prevention | 67,000 | - | - | - | 67,000 | - | - | - | - | 67,000 |
| Customer Accounts | 660,000 | - | - | 136,500 | - | - | - | - | - | 136,500 |
| Engineering | 1,475,000 | - | - | - | - | 32,500 | - | - | - | 32,500 |
| General & Admin. | 3,082,500 | - | 5,000 | - | - | - | 181,500 | - | - | 186,500 |
| Capital Replacement | 2,136,830 | - | - | - | - | - | - | 2,007,000 | 217,000 | 2,224,000 |
| | | <u>\$390,000</u> | <u>\$5,000</u> | <u>\$403,500</u> | <u>\$86,000</u> | <u>\$32,500</u> | <u>\$181,500</u> | <u>\$2,007,000</u> | <u>\$217,000</u> | <u>\$3,322,500</u> |
| CY 2020 | Amount | | | Other | | | | Property Tax | Investment Earnings | Total |
| | Before Offset | Pumping Charges | Interest | Late/Lock Charges | Backflow Fees | Engineering Fees | Misc | | | |
| EXPENSES | | | | | | | | | | |
| Pumping | \$1,047,500 | \$450,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 450,000 |
| Meters | 703,000 | - | - | 281,200 | 19,500 | - | - | - | - | 300,700 |
| Backflow Prevention | 68,500 | - | - | - | 68,500 | - | - | - | - | 68,500 |
| Customer Accounts | 700,000 | - | - | 133,300 | - | - | - | - | - | 133,300 |
| Engineering | 1,473,000 | - | - | - | - | 33,500 | - | - | - | 33,500 |
| General & Admin. | 3,249,500 | - | 5,000 | - | - | - | 186,500 | - | - | 191,500 |
| Capital Replacement | 2,136,830 | - | - | - | - | - | - | 2,033,000 | 302,500 | 2,335,500 |
| | | <u>\$450,000</u> | <u>\$5,000</u> | <u>\$414,500</u> | <u>\$88,000</u> | <u>\$33,500</u> | <u>\$186,500</u> | <u>\$2,033,000</u> | <u>\$302,500</u> | <u>\$3,513,000</u> |
| CY 2021 | Amount | | | Other | | | | Property Tax | Investment Earnings | Total |
| | Before Offset | Pumping Charges | Interest | Late/Lock Charges | Backflow Fees | Engineering Fees | Misc | | | |
| EXPENSES | | | | | | | | | | |
| Pumping | \$1,252,500 | \$470,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 470,000 |
| Meters | 730,000 | - | - | 292,000 | 20,500 | - | - | - | - | 312,500 |
| Backflow Prevention | 69,500 | - | - | - | 69,500 | - | - | - | - | 69,500 |
| Customer Accounts | 725,000 | - | - | 134,000 | - | - | - | - | - | 134,000 |
| Engineering | 1,445,500 | - | - | - | - | 34,500 | - | - | - | 34,500 |
| General & Admin. | 3,412,000 | - | 5,000 | - | - | - | 191,500 | - | - | 196,500 |
| Capital Replacement | 2,136,830 | - | - | - | - | - | - | 2,059,500 | 329,000 | 2,388,500 |
| | | <u>\$470,000</u> | <u>\$5,000</u> | <u>\$426,000</u> | <u>\$90,000</u> | <u>\$34,500</u> | <u>\$191,500</u> | <u>\$2,059,500</u> | <u>\$329,000</u> | <u>\$3,605,500</u> |

Revenue Offsets

| CY 2022 | Amount | | Other | | | | | Property Tax | Investment Earnings | Total |
|---------------------|------------------|--------------------|----------------|----------------------|------------------|---------------------|------------------|--------------------|------------------------|--------------------|
| | Before Offset | Pumping Charges | Interest | Late/Lock Charges | Backflow Fees | Engineering Fees | Misc | | | |
| EXPENSES | | | | | | | | | | |
| Pumping | \$1,360,000 | \$480,000 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 480,000 |
| Meters | 734,000 | - | - | 293,600 | 21,000 | - | - | - | - | 314,600 |
| Backflow Prevention | 70,000 | - | - | - | 70,000 | - | - | - | - | 70,000 |
| Customer Accounts | 729,000 | - | - | 138,400 | - | - | - | - | - | 138,400 |
| Engineering | 1,452,000 | - | - | - | - | 35,000 | - | - | - | 35,000 |
| General & Admin. | 3,511,000 | - | 5,000 | - | - | - | 194,000 | - | - | 199,000 |
| Capital Replacement | 2,136,830 | - | - | - | - | - | - | 2,073,000 | 346,000 | 2,419,000 |
| | | <u>\$480,000</u> | <u>\$5,000</u> | <u>\$432,000</u> | <u>\$91,000</u> | <u>\$35,000</u> | <u>\$194,000</u> | <u>\$2,073,000</u> | <u>\$346,000</u> | <u>\$3,656,000</u> |

Capital Replacement Allocation

Budgeted capital replacement is volatile. Including each budget year in each rate setting year would cause the revenue requirement to fluctuate from year to year. The five years within the capital spending plan are averaged for recovery in each rate setting year.

The nature of replacements fluctuates from year to year. To smooth these fluctuations, each year's capital replacement is allocated to tiers based on book value of the components of the water system, and their nexus to peak demands. System costs associated with fire protection are allocated 5% based on the 5% requirement for system capacity.

| Plant Assets | Total | Meters | Commodity | | | Fire Protection |
|---------------------------|----------------------|---------------------|---------------------|---------------------|---------------------|--------------------|
| | | | Tier1 | Tier2 | Tier3 | |
| Pumping | \$ 7,364,983 | \$ - | \$ 1,388,851 | \$ 4,291,797 | \$ 1,316,086 | \$ 368,249 |
| Water Treatment | 95,357 | - | 18,928 | 58,492 | 17,937 | - |
| Tanks & Reservoirs | 54,313,776 | - | 10,242,220 | 31,650,267 | 9,705,600 | 2,715,689 |
| Transmission&Distribution | 50,658,198 | - | 6,049,349 | 18,696,674 | 23,379,265 | 2,532,910 |
| Services | 13,438,304 | 13,438,304 | - | - | - | - |
| Meters | 5,067,418 | 5,067,418 | - | - | - | - |
| General Plant | 8,987,362 | 8,987,362 | - | - | - | - |
| | <u>\$139,925,398</u> | <u>\$27,493,084</u> | <u>\$17,699,348</u> | <u>\$54,697,230</u> | <u>\$34,418,888</u> | <u>\$5,616,848</u> |
| Allocation Percent | 100.00% | 19.65% | 12.65% | 39.09% | 24.60% | 4.01% |

Capital Replacement Revenue Requirement

| Property Tax & | 5 Year Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
|--------------------------------------|---------------|--------------|--------------|--------------|--------------|-------------|
| Investment Earnings Offset | \$ 11,501,000 | \$ 2,276,000 | \$ 2,135,000 | \$ 2,313,000 | \$ 2,358,000 | \$2,419,000 |
| Capital Replacement | 12,902,000 | 4,435,700 | 3,900,200 | 2,036,100 | 2,530,000 | - |
| Capital Revenue Requirement Smoothed | | 2,553,252 | 2,395,076 | 2,594,759 | 2,645,241 | 2,713,672 |

CY 2019 Cost Allocation and Distribution

| | Projected | | Ready-to-Serve | | Commodity | | | Fire |
|-------------------------------|---------------------|--------------------|---------------------|-------------------|--------------------|---------------------|--------------------|-------------------|
| | 2019 | Offset | Meters | Bill | Tier1 | Tier2 | Tier3 | Protection |
| Water Costs | | | | | | | | |
| Projected AF demand | 14,400 | | | | 5,211 | 7,091 | 2,098 | |
| Projected AF production | 15,250 | | | | | | | |
| OMWD | 3,899 | | | | 3,899 | | | |
| SDCWA | 7,705 | | | | 1,621 | 6,084 | | |
| Desal - committed | 3,500 | | | | | 1,278 | 2,222 | |
| Desal - excess | 146 | | | | | | 146 | |
| Cost per AF | | | | | \$ 1,361 | \$ 1,426 | \$ 2,645 | |
| | | | | | \$ 1,426 | \$ 2,645 | \$ 767 | |
| Water purchases | | | | | \$5,306,539 | \$ 8,675,784 | \$5,877,190 | |
| | | | | | \$2,311,546 | \$ 3,380,310 | \$ 111,982 | |
| Water cost | \$32,033,351 | \$ - | \$ 6,370,000 | \$ - | \$7,618,085 | \$12,056,094 | \$5,989,172 | \$ - |
| Operating Expenses | | | | | | | | |
| Pumping | 875,500 | 390,000 | - | - | 87,817 | 288,127 | 85,281 | 24,275 |
| Water Quality | 193,500 | - | - | - | 70,028 | 95,279 | 28,193 | - |
| Water Treatment | 487,500 | - | - | - | 92,820 | 304,541 | 90,139 | - |
| Tanks & Reservoirs | 436,500 | - | - | - | 78,955 | 259,047 | 76,673 | 21,825 |
| Transmission & Dist. Services | 2,181,500 | - | - | - | 249,935 | 819,851 | 1,002,639 | 109,075 |
| Meters | 290,000 | - | 290,000 | - | - | - | - | - |
| Backflow Prevention | 667,500 | 286,000 | 201,275 | 180,225 | - | - | - | - |
| Customer Accounts | 67,000 | 67,000 | - | - | - | - | - | - |
| Equipment & Vehicles | 660,000 | 136,500 | - | 523,500 | - | - | - | - |
| Building & Grounds | 306,500 | - | 306,500 | - | - | - | - | - |
| Engineering | 363,000 | - | 363,000 | - | - | - | - | - |
| Safety & Reg. Affairs | 1,475,000 | 32,500 | 1,442,500 | - | - | - | - | - |
| Information Technology | 277,000 | - | 277,000 | - | - | - | - | - |
| G&A - Conservation | 1,069,500 | - | 1,069,500 | - | - | - | - | - |
| General&Admin - Other | 598,935 | - | - | - | - | - | 598,935 | - |
| Capital Replacement | 2,483,565 | 186,500 | 2,297,065 | - | - | - | - | - |
| Reserve Target Adjustmnt | 2,494,918 | 2,224,000 | 53,231 | - | 34,269 | 105,903 | 66,640 | 10,875 |
| Total Costs to Recover | 680,000 | - | 133,609 | - | 86,014 | 265,814 | 167,267 | 27,296 |
| Total Costs to Recover | \$47,640,769 | \$3,322,500 | \$12,803,680 | \$ 703,725 | \$8,317,923 | \$14,194,656 | \$8,104,939 | \$ 193,346 |

| | | Ready-to-Serve | | Commodity | | | Fire |
|----------------------|---------|----------------|------------|-------------|--------------|-------------|------------|
| | CY 2019 | Meters | Bill | Tier 1 | Tier 2 | Tier 3 | Service |
| Revenue Requirement | | \$12,803,680 | \$ 703,725 | \$8,317,923 | \$14,194,656 | \$8,104,939 | \$ 193,346 |
| Billing Units - HCFs | | 392,632 | 259,500 | 2,269,912 | 3,088,840 | 913,889 | 38,316 |
| Unit Cost | | \$ 32.61 | \$ 2.71 | \$ 3.66 | \$ 4.60 | \$ 8.87 | \$ 5.05 |

| | Meter | Meter Equivalents | | Ready-to-Serve Charge | | |
|--|---------------|-------------------|-----------|-----------------------|----------|---------------|
| | Size | Per Meter | Unit Cost | Meter | Bill | Total |
| CY 2019 Target Costs - | | | | | | |
| Costs to Recover less Water Cost less Reserve Adj | 5/8" | 1.0 | \$ 32.61 | \$ 32.61 | \$ 2.71 | \$ 35.32 |
| Fixed - Stability | 7,330,751 60% | 3/4" | 1.0 | 32.61 | 32.61 | 2.71 35.32 |
| Variable | 4,954,167 40% | 1" | 1.5 | 32.61 | 48.92 | 2.71 51.63 |
| <i>Some portion of these costs are always fixed, regardless of change in demand.</i> | | 1.5" | 4.0 | 32.61 | 130.44 | 2.71 133.15 |
| <i>These fixed costs should be recovered through fixed revenue - RTS.</i> | | 2" | 6.5 | 32.61 | 211.97 | 2.71 214.68 |
| <i>Prior cost of service studies included an 80/20 fixed/variable split on some costs.</i> | | 3" | 10.0 | 32.61 | 326.10 | 2.71 328.81 |
| <i>This study allocates all costs directly associated with water to commodity.</i> | | 4" | 15.0 | 32.61 | 489.15 | 2.71 491.86 |
| <i>Costs not associated directly with water are allocated to meter charges</i> | | 6" | 30.0 | 32.61 | 978.30 | 2.71 981.01 |
| <i>The resulting allocation is compared to an historical analysis for reasonableness.</i> | | 10" | 70.0 | 32.61 | 2,282.70 | 2.71 2,285.41 |
| <i>To continue to encourage conservation,</i> | | multi | 0.3 | 32.61 | 9.78 | - 9.78 |
| <i>the resulting fixed allocation should not exceed historical cost stability of 69%.</i> | | | | | | |

CY 2022 Cost Allocation and Distribution

| | Projected | | Ready-to-Serve | | Commodity | | | Fire |
|--|---------------------|---------------------|-----------------------|--------------------------|---------------------|------------------------------|---------------------|-------------------|
| | 2022 | Offset | Meters | Bill | Tier1 | Tier2 | Tier3 | Protection |
| Water Costs | | | | | | | | |
| Projected AF demand | 15,600 | | | | 5,259 | 8,081 | 2,260 | |
| Projected AF production | 16,530 | | | | | | | |
| OMWD | 3,899 | | | | 3,899 | | | |
| SDCWA | 8,548 | | | | 1,672 | 6,876 | | |
| Desal - committed | 3,500 | | | | | 1,106 | 2,394 | |
| Desal - excess | 583 | | | | | | 583 | |
| Cost per AF | | | | | \$ 1,614 | \$ 1,691 | \$ 2,921 | |
| | | | | | \$ 1,691 | \$ 2,921 | \$ 879 | |
| Water purchases | | | | | \$ 6,292,986 | \$ 11,627,316 | \$ 6,992,874 | |
| | | | | | \$ 2,827,352 | \$ 3,230,626 | \$ 512,457 | |
| Water cost | \$39,036,611 | \$ - | \$ 7,553,000 | \$ - | \$ 9,120,338 | \$ 14,857,942 | \$ 7,505,331 | \$ - |
| Operating Expenses | | | | | | | | |
| Pumping | 1,360,000 | 480,000 | - | - | 148,306 | 537,381 | 150,313 | 44,000 |
| Water Quality | 229,000 | - | - | - | 77,196 | 118,622 | 33,182 | - |
| Water Treatment | 555,000 | - | - | - | 98,457 | 356,754 | 99,789 | - |
| Tanks & Reservoirs | 489,000 | - | - | - | 82,411 | 298,613 | 83,526 | 24,450 |
| Transmission & Dist. | 3,186,000 | - | - | - | 340,201 | 1,231,867 | 1,454,632 | 159,300 |
| Services | 430,000 | - | 430,000 | - | - | - | - | - |
| Meters | 734,000 | 314,600 | 221,220 | 198,180 | - | - | - | - |
| Backflow Prevention | 70,000 | 70,000 | - | - | - | - | - | - |
| Customer Accounts | 729,000 | 138,400 | - | 590,600 | - | - | - | - |
| Equipment & Vehicles | 343,000 | - | 343,000 | - | - | - | - | - |
| Building & Grounds | 390,000 | - | 390,000 | - | - | - | - | - |
| Engineering | 1,452,000 | 35,000 | 1,417,000 | - | - | - | - | - |
| Safety & Reg. Affairs | 296,000 | - | 296,000 | - | - | - | - | - |
| Information Technology | 1,186,000 | - | 1,186,000 | - | - | - | - | - |
| G&A - Conservation | 656,682 | - | - | - | - | - | 656,682 | - |
| General&Admin - Other | 2,854,318 | 199,000 | 2,655,318 | - | - | - | - | - |
| Capital Replacement | 2,713,672 | 2,419,000 | 57,899 | - | 37,273 | 115,188 | 72,483 | 11,829 |
| Reserve Target Adjustmnt | 1,680,000 | - | 330,093 | - | 212,505 | 656,717 | 413,247 | 67,438 |
| Total Costs to Recover | \$58,390,283 | \$ 3,656,000 | \$14,879,530 | \$ 788,780 | \$10,116,687 | \$18,173,084 | \$10,469,185 | \$ 307,017 |
| | | | | | | | | |
| | CY 2022 | | Ready-to-Serve | | Commodity | | Fire | |
| | | | Meters | Bill | Tier 1 | Tier 2 | Tier 3 | Service |
| Revenue Requirement | | | \$14,879,530 | \$ 788,780 | \$10,116,687 | \$18,173,084 | \$10,469,185 | \$ 307,017 |
| Billing Units | | | 399,504 | 261,876 | 2,290,820 | 3,520,084 | 984,456 | 38,676 |
| Unit Cost | | | \$ 37.25 | \$ 3.01 | \$ 4.42 | \$ 5.16 | \$ 10.63 | \$ 7.94 |
| | | | | | | | | |
| CY 2022 Target Costs - | | | Meter | Meter Equivalents | | Ready-to-Serve Charge | | |
| | | | Size | Per Meter | Unit Cost | Meter | Bill | Total |
| Costs to Recover less Water Cost less Reserve Adj | | | 5/8" | 1.0 | \$ 37.25 | \$ 37.25 | \$ 3.01 | \$ 40.26 |
| Fixed - Stability | 8,422,327 | 54% | 3/4" | 1.0 | 37.25 | 37.25 | 3.01 | 40.26 |
| Variable | 7,275,345 | 46% | 1" | 1.5 | 37.25 | 55.88 | 3.01 | 58.89 |
| <i>Some portion of these costs are always fixed, regardless of change in demand.</i> | | | 1.5" | 4.0 | 37.25 | 149.00 | 3.01 | 152.01 |
| <i>These fixed costs should be recovered through fixed revenue - RTS.</i> | | | 2" | 6.5 | 37.25 | 242.13 | 3.01 | 245.14 |
| <i>Prior cost of service studies included an 80/20 fixed/variable split on some costs.</i> | | | 3" | 10.0 | 37.25 | 372.50 | 3.01 | 375.51 |
| <i>This study allocates all costs directly associated with water to commodity.</i> | | | 4" | 15.0 | 37.25 | 558.75 | 3.01 | 561.76 |
| <i>Costs not associated directly with water are allocated to meter charges</i> | | | 6" | 30.0 | 37.25 | 1,117.50 | 3.01 | 1,120.51 |
| <i>The resulting allocation is compared to an historical analysis for reasonableness.</i> | | | 10" | 70.0 | 37.25 | 2,607.50 | 3.01 | 2,610.51 |
| <i>To continue to encourage conservation,</i> | | | multi | 0.3 | 37.25 | 11.18 | - | 11.18 |
| <i>the resulting fixed allocation should not exceed historical cost stability of 69%.</i> | | | | | | | | |

Vallecitos Water District
2017 Water Rate Model

| Rates | | | | | | | | | | | | |
|-------------------------|-----------------------|-----------|-----------|----------|-------------------|-----------|--------------|---------|---------|---------|---------|--|
| Meter Size | Ready-to-Serve Charge | | | | | | Increase to: | | | | | |
| | Current | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 | |
| 5/8" | \$ 31.42 | \$ 33.25 | \$ 35.32 | \$ 37.36 | \$ 38.92 | \$ 40.26 | 5.8% | 6.2% | 5.8% | 4.2% | 3.4% | |
| 3/4" | 36.52 | 33.25 | 35.32 | 37.36 | 38.92 | 40.26 | -9.0% | 6.2% | 5.8% | 4.2% | 3.4% | |
| 1" | 55.29 | 48.59 | 51.63 | 54.59 | 56.87 | 58.89 | -12.1% | 6.2% | 5.7% | 4.2% | 3.5% | |
| 1.5" | 110.59 | 125.29 | 133.15 | 140.71 | 146.62 | 152.01 | 13.3% | 6.3% | 5.7% | 4.2% | 3.7% | |
| 2" | 178.11 | 201.99 | 214.68 | 226.84 | 236.37 | 245.14 | 13.4% | 6.3% | 5.7% | 4.2% | 3.7% | |
| 3" | 356.22 | 309.37 | 328.81 | 347.41 | 362.02 | 375.51 | -13.2% | 6.3% | 5.7% | 4.2% | 3.7% | |
| 4" | 552.94 | 462.77 | 491.86 | 519.66 | 541.52 | 561.76 | -16.3% | 6.3% | 5.7% | 4.2% | 3.7% | |
| 6" | 1,105.88 | 922.97 | 981.01 | 1,036.41 | 1,080.02 | 1,120.51 | -16.5% | 6.3% | 5.6% | 4.2% | 3.7% | |
| 10" | 2,549.36 | 2,150.17 | 2,285.41 | 2,414.41 | 2,516.02 | 2,610.51 | -15.7% | 6.3% | 5.6% | 4.2% | 3.8% | |
| multi | 18.26 | 9.20 | 9.78 | 10.34 | 10.77 | 11.18 | -49.6% | 6.3% | 5.6% | 4.2% | 3.8% | |
| Fire Line per diameter" | 5.87 | 4.78 | 5.05 | 6.28 | 6.87 | 7.94 | -18.6% | 5.6% | 24.4% | 9.4% | 15.6% | |
| Construction | 204.48 | 279.27 | 296.01 | 312.61 | 324.92 | 336.61 | 36.6% | 6.0% | 5.6% | 3.9% | 3.6% | |
| Commodity Rates | | | | | | | | | | | | |
| | Current | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 | CY2018 | CY2019 | CY2020 | CY2021 | CY2022 | |
| Tier 1 | \$ 3.08 | \$ 3.38 | \$ 3.66 | \$ 3.93 | \$ 4.19 | \$ 4.42 | 9.7% | 8.3% | 7.4% | 6.6% | 5.5% | |
| Tier 2 | 4.12 | 4.43 | 4.60 | 4.82 | 4.98 | 5.16 | 7.5% | 3.8% | 4.8% | 3.3% | 3.6% | |
| Tier 3 | 5.33 | 8.47 | 8.87 | 9.54 | 10.04 | 10.63 | 58.9% | 4.7% | 7.6% | 5.2% | 5.9% | |
| Tier 4 | 7.41 | | | | | | | | | | | |
| Tier Structure in Units | | | | | | | | | | | | |
| Meter Size | Current | | | | Effective CY 2018 | | | | | | | |
| | Tier 1 | Tier 2 | Tier 3 | Tier 4 | Tier 1 | Tier 2 | Tier 3 | | | | | |
| <1" | 1 - 5 | 6 - 17 | 18 - 36 | 37 + | 1 - 6 | 7 - 21 | 22 + | | | | | |
| 1" | 1 - 5 | 6 - 60 | 61 - 214 | 215 + | 1 - 16 | 17 - 78 | 79 + | | | | | |
| 1.5" | 1 - 5 | 6 - 157 | 158 - 627 | 628 + | 1 - 43 | 44 - 196 | 197 + | | | | | |
| 2" | 1 - 5 | 6 - 242 | 243 - 806 | 807 + | 1 - 85 | 86 - 335 | 336 + | | | | | |
| >2" | 1 - 5 | 6 - 1,133 | 1134-3970 | 3,971 + | 1 - 430 | 431-1,190 | 1,191 + | | | | | |
| Ag | 1 - 5 | 6 + | | | | 1 + | | | | | | |
| Temporary Construction | | | | 1 + | | | | 1 + | | | | |

| Average Single Family Rates - Water and Sewer | | | | | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|
| | Current | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 |
| RTS | \$ 31.42 | \$ 33.25 | \$ 35.32 | \$ 37.36 | \$ 38.92 | \$ 40.26 |
| Commodity | 48.36 | 51.29 | 54.16 | 57.32 | 60.00 | 62.64 |
| Sewer | 38.99 | 38.99 | 38.99 | 38.99 | 40.16 | 41.77 |
| Total | <u>\$ 118.77</u> | <u>\$ 123.53</u> | <u>\$ 128.47</u> | <u>\$ 133.67</u> | <u>\$ 139.08</u> | <u>\$ 144.67</u> |
| Increase | | \$ 4.76 | \$ 4.94 | \$ 5.20 | \$ 5.41 | \$ 5.59 |
| | | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Water Only Increase | | 6.0% | 5.8% | 5.8% | 4.5% | 4.0% |

Rate Impact - RTS plus Commodity

Low User

| | Effective | | | | | | Increase | | | | |
|---------|-----------|----------|----------|----------|----------|----------|----------|--------|---------|------|--------|
| | Current | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 | CY 2018 | | CY 2019 | | CY2020 |
| 5/8" | \$ 50.94 | \$ 53.53 | \$ 57.28 | \$ 60.94 | \$ 64.06 | \$ 66.78 | \$ 2.59 | 5.1% | \$ 3.75 | 7.0% | 6.4% |
| 3/4" | 56.04 | 56.80 | 58.48 | 60.94 | 64.06 | 66.78 | 0.76 | 1.4% | 1.68 | 3.0% | 4.2% |
| 1" | 116.01 | 109.37 | 113.85 | 118.17 | 123.91 | 129.61 | (6.64) | -5.7% | 4.48 | 4.1% | 3.8% |
| 1.5" | 282.55 | 265.97 | 288.05 | 203.59 | 326.79 | 342.07 | (16.58) | -5.9% | 22.08 | 8.3% | -29.3% |
| 2" | 523.11 | 481.65 | 525.78 | 560.89 | 592.52 | 620.84 | (41.46) | -7.9% | 44.12 | 9.2% | 6.7% |
| 3" | 2,122.62 | 1,809.62 | 1,930.02 | 2,046.12 | 2,163.72 | 2,276.11 | (313.00) | -14.7% | 120.40 | 6.7% | 6.0% |
| Ag 1" | 148.97 | 154.91 | 165.69 | 170.97 | 176.39 | 182.73 | 5.94 | 4.0% | 10.78 | 7.0% | 3.2% |
| Ag 1.5" | 406.15 | 444.02 | 466.47 | 492.57 | 510.16 | 528.69 | 37.87 | 9.3% | 22.45 | 5.1% | 5.6% |
| Mf 1" | 246.17 | 180.04 | 195.55 | 204.28 | 213.43 | 222.46 | (66.13) | -26.9% | 15.50 | 8.6% | 4.5% |
| Mf 1.5" | 610.01 | 461.62 | 494.60 | 527.39 | 553.08 | 576.78 | (148.39) | -24.3% | 32.98 | 7.1% | 6.6% |

Average User

| | Effective | | | | | | Increase | | | | |
|---------|-----------|----------|----------|----------|----------|-----------|----------|--------|---------|------|--------|
| | Current | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 | CY 2018 | | CY 2019 | | CY2020 |
| 5/8" | \$ 79.78 | \$ 84.54 | \$ 89.48 | \$ 94.68 | \$ 98.92 | \$ 102.90 | \$ 4.76 | 6.0% | \$ 4.94 | 5.8% | 5.8% |
| 3/4" | 84.88 | 87.81 | 90.68 | 94.68 | 98.92 | 102.90 | 2.93 | 3.5% | 2.87 | 3.3% | 4.4% |
| 1" | 235.49 | 237.84 | 247.25 | 257.95 | 268.33 | 279.25 | 2.35 | 1.0% | 9.41 | 4.0% | 4.3% |
| 1.5" | 587.43 | 593.79 | 628.45 | 666.38 | 695.31 | 723.91 | 6.36 | 1.1% | 34.66 | 5.8% | 6.0% |
| 2" | 1,001.03 | 995.53 | 1,059.38 | 1,120.01 | 1,170.20 | 1,219.40 | (5.50) | -0.5% | 63.84 | 6.4% | 5.7% |
| 3" | 3,556.38 | 3,351.26 | 3,530.82 | 3,723.48 | 3,896.76 | 4,071.79 | (205.12) | -5.8% | 179.56 | 5.4% | 5.5% |
| Ag 1" | 470.33 | 507.15 | 524.49 | 546.93 | 564.83 | 585.21 | 36.82 | 7.8% | 17.34 | 3.4% | 4.3% |
| Ag 1.5" | 1,633.91 | 1,764.16 | 1,837.27 | 1,928.93 | 1,994.20 | 2,066.37 | 130.25 | 8.0% | 73.11 | 4.1% | 5.0% |
| Mf 1" | 414.57 | 341.79 | 356.55 | 372.98 | 387.73 | 403.06 | (72.78) | -17.6% | 14.75 | 4.3% | 4.6% |
| Mf 1.5" | 1,080.55 | 886.90 | 936.20 | 990.11 | 1,031.16 | 1,072.14 | (193.65) | -17.9% | 49.30 | 5.6% | 5.8% |

High User

| | Effective | | | | | | Increase | | | | |
|---------|-----------|-----------|-----------|-----------|-----------|-----------|----------|--------|---------|------|--------|
| | Current | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 | CY 2018 | | CY 2019 | | CY2020 |
| 5/8" | \$ 117.58 | \$ 119.98 | \$ 126.28 | \$ 133.24 | \$ 138.76 | \$ 144.18 | \$ 2.40 | 2.0% | \$ 6.30 | 5.3% | 5.5% |
| 3/4" | 122.68 | 123.25 | 127.48 | 133.24 | 138.76 | 144.18 | 0.57 | 0.5% | 4.23 | 3.4% | 4.5% |
| 1" | 393.23 | 384.03 | 399.05 | 417.01 | 432.67 | 449.53 | (9.20) | -2.3% | 15.02 | 3.9% | 4.5% |
| 1.5" | 960.10 | 943.76 | 991.85 | 1,047.16 | 1,088.73 | 1,131.55 | (16.34) | -1.7% | 48.09 | 5.1% | 5.6% |
| 2" | 1,665.64 | 1,589.15 | 1,675.78 | 1,765.89 | 1,837.52 | 1,910.84 | (76.49) | -4.6% | 86.62 | 5.5% | 5.4% |
| 3" | 5,318.67 | 5,176.42 | 5,426.02 | 5,709.32 | 5,948.52 | 6,197.71 | (142.25) | -2.7% | 249.60 | 4.8% | 5.2% |
| Ag 1" | 816.41 | 879.27 | 910.89 | 951.81 | 983.15 | 1,018.65 | 62.86 | 7.7% | 31.62 | 3.6% | 4.5% |
| Ag 1.5" | 2,754.55 | 2,969.12 | 3,088.47 | 3,239.97 | 3,348.76 | 3,469.89 | 214.57 | 7.8% | 119.4 | 4.0% | 4.9% |
| Mf 1" | 727.22 | 634.06 | 661.76 | 698.44 | 728.21 | 761.07 | (93.16) | -12.8% | 27.7 | 4.4% | 5.5% |
| Mf 1.5" | 1,816.74 | 1,581.55 | 1,661.93 | 1,765.05 | 1,842.64 | 1,926.35 | (235.19) | -12.9% | 80.4 | 5.1% | 6.2% |

Very High User

| | Effective | | | | | | Increase | | | | |
|---------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-------|----------|------|--------|
| | Current | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 | CY 2018 | | CY 2019 | | CY2020 |
| 5/8" | \$ 241.99 | \$ 297.85 | \$ 312.55 | \$ 333.58 | \$ 349.60 | \$ 367.41 | \$ 55.86 | 23.1% | \$ 14.70 | 4.9% | 6.7% |
| 3/4" | 247.09 | 301.12 | 313.75 | 333.58 | 349.60 | 367.41 | 54.03 | 21.9% | 12.63 | 4.2% | 6.3% |
| 1" | 808.97 | 1,044.69 | 1,090.91 | 1,161.13 | 1,215.79 | 1,278.67 | 235.72 | 29.1% | 46.22 | 4.4% | 6.4% |
| 1.5" | 2,004.78 | 2,603.88 | 2,730.37 | 2,917.00 | 3,056.57 | 3,215.03 | 599.10 | 29.9% | 126.49 | 4.9% | 6.8% |
| 2" | 3,451.19 | 4,426.60 | 4,647.23 | 4,961.79 | 5,200.92 | 5,471.89 | 975.41 | 28.3% | 220.62 | 5.0% | 6.8% |
| 3" | 11,661.4 | 15,255.7 | 15,981.3 | 17,061.9 | 17,896.1 | 18,847.4 | 3,594.4 | 30.8% | 725.6 | 4.8% | 6.8% |
| Ag 1" | 1,578.61 | 1,698.82 | 1,761.89 | 1,843.51 | 1,904.45 | 1,973.25 | 120.21 | 7.6% | 63.07 | 3.7% | 4.6% |
| Ag 1.5" | 5,407.83 | 5,822.04 | 6,050.87 | 6,344.05 | 6,555.88 | 6,792.93 | 414.21 | 7.7% | 228.8 | 3.9% | 4.8% |
| Mf 1" | 1,475.63 | 1,489.53 | 1,557.63 | 1,661.98 | 1,742.25 | 1,834.70 | 13.90 | 0.9% | 68.1 | 4.6% | 6.7% |
| Mf 1.5" | 3,706.29 | 3,741.40 | 3,923.78 | 4,197.75 | 4,402.84 | 4,637.00 | 35.11 | 0.9% | 182.4 | 4.9% | 7.0% |

Rate Presentation Tables

| Ready-to-Serve Charge | | | | Tier Structure in Units | | | | | | | | |
|-----------------------|--------------------|----------|----------|-----------------------------------|---------|----------|-----------|---------|------------------------|----------|---------|--|
| Meter Size | Effective January: | | | Meter Size | Current | | | | Effective January 2018 | | | |
| | Current | 2018 | 2019 | | Tier 1 | Tier 2 | Tier 3 | Tier 4 | Tier 1 | Tier 2 | Tier 3 | |
| 5/8" | 31.42 | 33.25 | 35.32 | <1" | 1 - 5 | 6 - 17 | 18 - 36 | 37 + | 1 - 6 | 7 - 21 | 22 + | |
| 3/4" | 36.52 | 36.52 | 36.52 | 1" | 1 - 5 | 6 - 60 | 61 - 214 | 215 + | 1 - 16 | 17 - 78 | 79 + | |
| 1" | 55.29 | 55.29 | 55.29 | 1.5" | 1 - 5 | 6 - 157 | 158 - 627 | 628 + | 1 - 43 | 44 - 196 | 197 + | |
| 1.5" | 110.59 | 120.63 | 130.67 | 2" | 1 - 5 | 6 - 242 | 243 - 806 | 807 + | 1 - 85 | 86 - 335 | 336 + | |
| 2" | 178.11 | 194.35 | 214.68 | >2" | 1 - 5 | 6 - 1133 | 1134-3970 | 3,971 + | 1 - 430 | 431-1190 | 1,191 + | |
| 3" | 356.22 | 356.22 | 356.22 | Ag | 1 - 5 | 6 + | | | | 1 + | | |
| 4" | 552.94 | 552.94 | 552.94 | TC = Temporary Construction Meter | | | | 1 + | | | 1 + | |
| 6" | 1,105.88 | 1,105.88 | 1,105.88 | Commodity Rates | | | | | | | | |
| 10" | 2,549.36 | 2,549.36 | 2,549.36 | | Current | CY 2018 | CY 2019 | | | | | |
| Multi | 18.26 | 11.18 | 11.18 | Tier 1 | \$ 3.08 | \$ 3.38 | \$ 3.66 | | | | | |
| Fire | 5.87 | 5.87 | 5.87 | Tier 2 | 4.12 | 4.43 | 4.60 | | | | | |
| TC | 204.48 | 230.91 | 257.33 | Tier 3 | 5.33 | 8.47 | 8.87 | | | | | |
| | | | | Tier 4 | 7.41 | | | | | | | |

Multi = additional living unit on one meter

Fire = per diameter inch of fire service line

| Use Level | Current | CY 2018 | CY 2019 | CY 2020 | CY 2021 | CY 2022 |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Low | \$ 89.93 | \$ 92.52 | \$ 96.27 | \$ 99.93 | \$ 104.22 | \$ 108.55 |
| 6 HCFs | | \$ 2.59 | \$ 3.75 | \$ 3.66 | \$ 4.29 | \$ 4.33 |
| 4,448 gallons | Increase | 2.9% | 4.1% | 3.8% | 4.3% | 4.2% |
| Average | \$ 118.77 | \$ 123.53 | \$ 128.47 | \$ 133.67 | \$ 139.08 | \$ 144.67 |
| 13 HCFs | | \$ 4.76 | \$ 4.94 | \$ 5.20 | \$ 5.41 | \$ 5.59 |
| 9,724 gallons | Increase | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| High | \$ 156.57 | \$ 158.97 | \$ 165.27 | \$ 172.23 | \$ 178.92 | \$ 185.95 |
| 21 HCFs | | \$ 2.40 | \$ 6.30 | \$ 6.96 | \$ 6.69 | \$ 7.03 |
| 15,708 gallons | Increase | 1.5% | 4.0% | 4.2% | 3.9% | 3.9% |
| Very High | \$ 280.98 | \$ 336.84 | \$ 351.54 | \$ 372.57 | \$ 389.76 | \$ 409.18 |
| 42 HCFs | | \$ 55.86 | \$ 14.70 | \$ 21.03 | \$ 17.19 | \$ 19.42 |
| 31,416 gallons | Increase | 19.9% | 4.4% | 6.0% | 4.6% | 5.0% |

Vallecitos Water District
2017 Water Rate Model

Rate Alternative Sufficiency

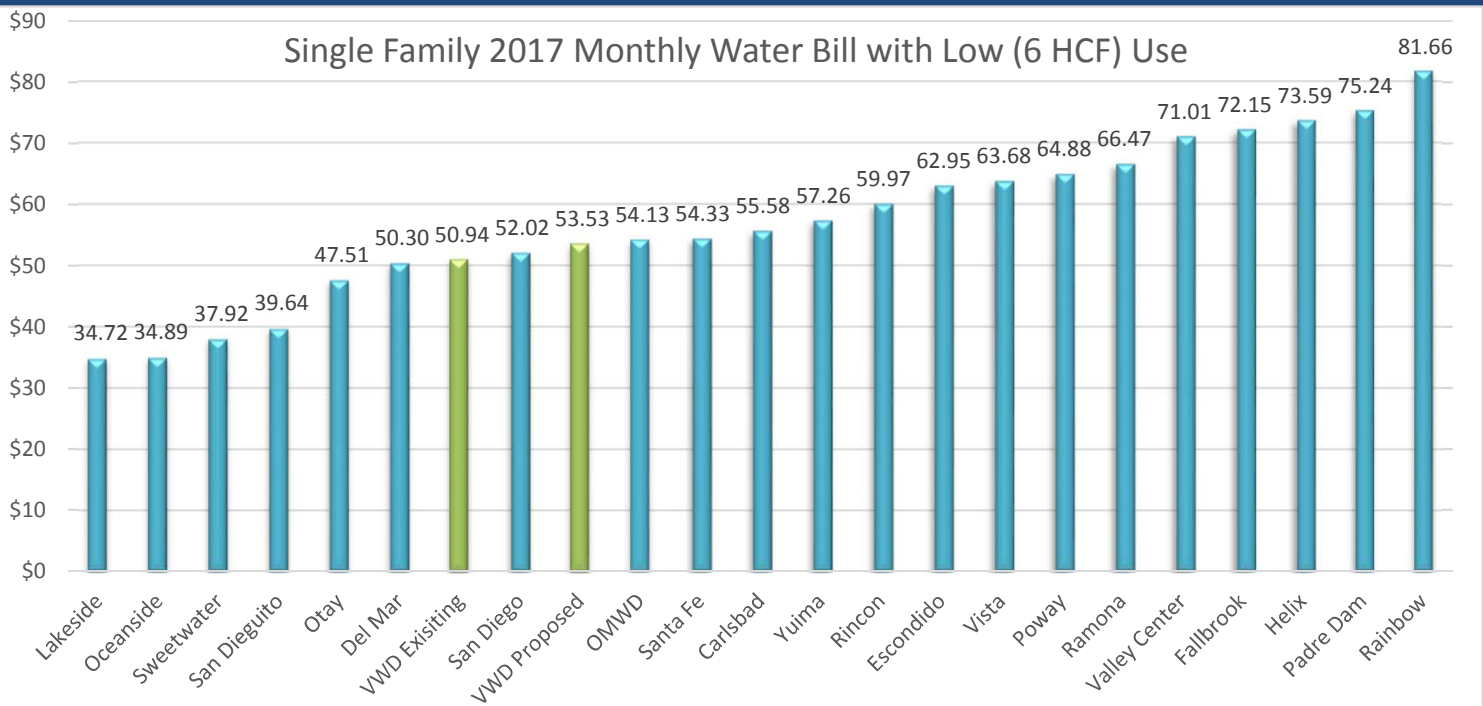
| Meter Size | CY 2018 | | | | | CY 2019 | | | | |
|----------------------------|----------|---------------|-------------|---------------|-------------|---------------|-----------|---------------|-------------|---------------|
| | Rate | Units | Revenue | Alternative | | Rate | Units | Revenue | Alternative | |
| | | | | Rate | Revenue | | | | Rate | Revenue |
| 5/8" | \$ 33.25 | 18,199 | \$7,261,401 | 33.25 | \$7,261,401 | \$ 35.32 | 18,199 | \$7,713,464 | 35.32 | \$7,713,464 |
| 3/4" | 33.25 | 967 | 385,833 | 36.52 | 423,778 | 35.32 | 980 | 415,363 | 36.52 | 429,475 |
| 1" | 48.59 | 1,067 | 622,146 | 55.29 | 707,933 | 51.63 | 1,098 | 680,211 | 55.29 | 728,501 |
| 1.5" | 125.29 | 704 | 1,058,450 | 120.63 | 1,019,082 | 133.15 | 714 | 1,140,829 | 130.67 | 1,119,581 |
| 2" | 201.99 | 526 | 1,274,961 | 194.35 | 1,226,748 | 214.68 | 536 | 1,380,790 | 214.68 | 1,380,790 |
| 3" | 309.37 | 64 | 237,596 | 356.22 | 273,577 | 328.81 | 65 | 256,472 | 356.22 | 277,852 |
| 4" | 462.77 | 17 | 94,405 | 552.94 | 112,800 | 491.86 | 17 | 100,339 | 552.94 | 112,800 |
| 6" | 922.97 | 15 | 166,135 | 1,105.88 | 199,058 | 981.01 | 15 | 176,582 | 1,105.88 | 199,058 |
| 10" | 2,150.17 | 1 | 25,802 | 2,549.36 | 30,592 | 2,285.41 | 1 | 27,425 | 2,549.36 | 30,592 |
| multi | 9.20 | 13,720 | 1,515,347 | 11.18 | 1,839,852 | 9.78 | 13,761 | 1,615,486 | 11.18 | 1,845,350 |
| Fireline | 4.78 | 3,183 | 182,577 | 5.87 | 224,211 | 5.05 | 3,193 | 193,496 | 5.87 | 224,915 |
| TC | 279.27 | 36 | 120,645 | 230.91 | 99,751 | 296.01 | 36 | 127,876 | 257.33 | 111,167 |
| Tier 1 | \$ 3.38 | 2,262,942 | 7,648,744 | \$ 3.38 | 7,648,744 | \$ 3.66 | 2,269,912 | 8,307,878 | \$ 3.66 | 8,307,878 |
| Tier 2 | 4.43 | 2,945,092 | 13,046,758 | 4.43 | 13,046,758 | 4.60 | 3,088,840 | 14,208,664 | 4.60 | 14,208,664 |
| Tier 3 | 8.47 | 890,366 | 7,541,400 | 8.47 | 7,541,400 | 8.87 | 913,889 | 8,106,195 | 8.87 | 8,106,195 |
| Revenue | | \$ 41,061,554 | | \$ 41,655,685 | | \$ 44,323,195 | | \$ 44,796,282 | | \$ 44,796,282 |
| Revenue Requirement/Impact | | 41,071,358 | | 594,131 | | 44,318,269 | | 473,088 | | 473,088 |

| Meter Size | CY 2020 | | | | | CY 2021 | | | | |
|----------------------------|----------|---------------|-------------|---------------|-------------|---------------|-----------|---------------|-------------|---------------|
| | Rate | Units | Revenue | Alternative | | Rate | Units | Revenue | Alternative | |
| | | | | Rate | Revenue | | | | Rate | Revenue |
| 5/8" | \$ 37.36 | 18,199 | \$8,158,976 | 37.36 | \$8,158,976 | \$ 38.92 | 18,199 | \$8,499,661 | \$ 38.92 | \$8,499,661 |
| 3/4" | 37.36 | 993 | 445,182 | 37.36 | 445,182 | 38.92 | 1,006 | 469,842 | 38.92 | 469,842 |
| 1" | 54.59 | 1,129 | 739,518 | 55.29 | 749,069 | 56.87 | 1,160 | 791,630 | 56.87 | 791,630 |
| 1.5" | 140.71 | 724 | 1,222,488 | 140.71 | 1,222,488 | 146.62 | 734 | 1,291,429 | 146.62 | 1,291,429 |
| 2" | 226.84 | 546 | 1,486,223 | 226.84 | 1,486,223 | 236.37 | 556 | 1,577,061 | 236.37 | 1,577,061 |
| 3" | 347.41 | 66 | 275,149 | 356.22 | 282,126 | 362.02 | 67 | 291,064 | 362.02 | 291,064 |
| 4" | 519.66 | 17 | 106,011 | 552.94 | 112,800 | 541.52 | 17 | 110,470 | 552.94 | 112,800 |
| 6" | 1,036.41 | 15 | 186,554 | 1,105.88 | 199,058 | 1,080.02 | 15 | 194,404 | 1,105.88 | 199,058 |
| 10" | 2,414.41 | 1 | 28,973 | 2,549.36 | 30,592 | 2,516.02 | 1 | 30,192 | 2,549.36 | 30,592 |
| multi | 10.34 | 13,802 | 1,711,724 | 11.18 | 1,850,848 | 10.77 | 13,843 | 1,789,069 | 11.18 | 1,856,346 |
| Fireline | 6.28 | 3,203 | 241,378 | 6.28 | 241,378 | 6.87 | 3,213 | 264,880 | 6.87 | 264,880 |
| TC | 312.61 | 36 | 135,048 | 283.76 | 122,583 | 324.92 | 36 | 140,365 | 310.18 | 133,999 |
| Tier 1 | \$ 3.93 | 2,276,881 | 8,948,142 | \$ 3.93 | 8,948,142 | \$ 4.19 | 2,283,851 | 9,569,336 | \$ 4.19 | 9,569,336 |
| Tier 2 | 4.82 | 3,232,588 | 15,581,074 | 4.82 | 15,581,074 | 4.98 | 3,376,336 | 16,814,153 | 4.98 | 16,814,153 |
| Tier 3 | 9.54 | 937,411 | 8,942,901 | 9.54 | 8,942,901 | 10.04 | 960,934 | 9,647,777 | 10.04 | 9,647,777 |
| Revenue | | \$ 48,074,292 | | \$ 48,250,858 | | \$ 51,340,969 | | \$ 51,549,630 | | \$ 51,549,630 |
| Revenue Requirement/Impact | | 48,068,585 | | 176,566 | | 51,342,829 | | 208,661 | | 208,661 |

| Meter | CY 2022 | | | | | |
|----------------------------|----------|---------------|-------------|---------------|-------------|---------|
| | Size | Rate | Units | Revenue | Alternative | |
| | | | | | Rate | Revenue |
| 5/8" | \$ 40.26 | 18,199 | \$8,792,301 | \$ 40.26 | \$8,792,301 | |
| 3/4" | 40.26 | 1,019 | 492,299 | 40.26 | 492,299 | |
| 1" | 58.89 | 1,192 | 842,291 | 58.89 | 842,291 | |
| 1.5" | 152.01 | 745 | 1,358,969 | 152.01 | 1,358,969 | |
| 2" | 245.14 | 567 | 1,667,899 | 245.14 | 1,667,899 | |
| 3" | 375.51 | 68 | 306,416 | 375.51 | 306,416 | |
| 4" | 561.76 | 17 | 114,599 | 561.76 | 114,599 | |
| 6" | 1,120.51 | 15 | 201,692 | 1,120.51 | 201,692 | |
| 10" | 2,610.51 | 1 | 31,326 | 2,610.51 | 31,326 | |
| multi | 11.18 | 13,885 | 1,861,979 | 11.18 | 1,861,979 | |
| Fireline | 7.94 | 3,223 | 307,087 | 7.94 | 307,087 | |
| TC | 336.61 | 36 | 145,416 | 336.61 | 145,416 | |
| Tier 1 | \$ 4.42 | 2,290,820 | 10,125,424 | \$ 4.42 | 10,125,424 | |
| Tier 2 | 5.16 | 3,520,084 | 18,163,633 | 5.16 | 18,163,633 | |
| Tier 3 | 10.63 | 984,456 | 10,464,767 | 10.63 | 10,464,767 | |
| Revenue | | \$ 54,730,683 | | \$ 54,876,099 | | |
| Revenue Requirement/Impact | | 54,734,283 | | \$ 145,416 | | |

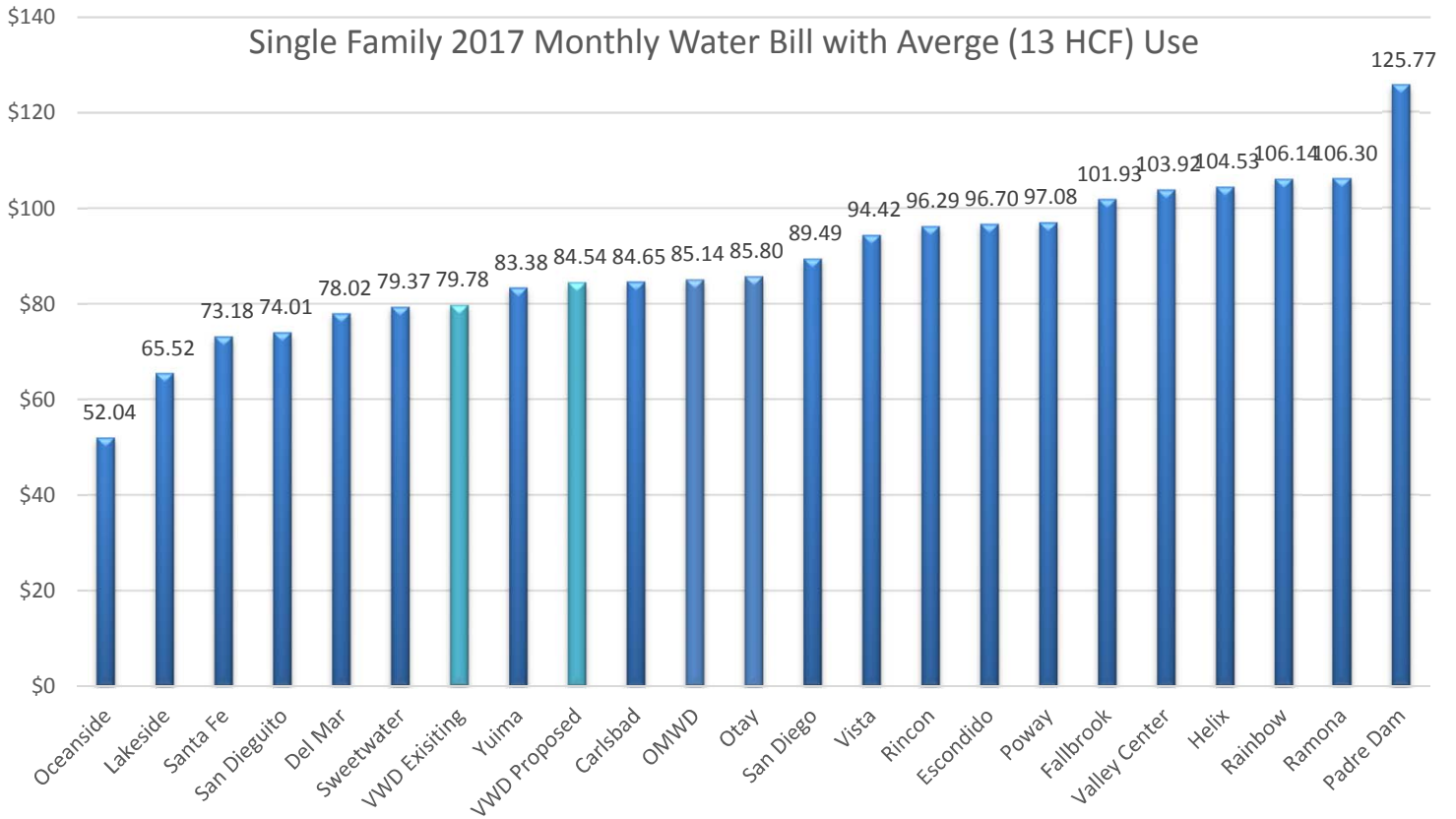
Vallecitos Water District
2017 Water Rate Model

| Rate Survey | | | | | | | | | | | | | |
|-------------|-------|--------------------|------|------|-----------------|------|------|-------|---------------|---------|--------|-----------|--------|
| Meter | | Use in Units (HCF) | | | | | | | | 6 | 13 | 21 | 42 |
| 5/8" | 3/4" | Tier Limits | | | 2017 Tier Rates | | | | Low | Average | High | Very High | |
| 24.11 | 32.54 | 10 | 18 | na | 3.84 | 4.57 | 6.82 | na | Carlsbad | 55.58 | 84.65 | 127.96 | 271.18 |
| 26.54 | 39.81 | 14 | 42 | na | 3.96 | 5.11 | 7.63 | na | Del Mar | 50.30 | 78.02 | 117.75 | 225.06 |
| 37.77 | 37.77 | 9.4 | 20.1 | na | 4.20 | 5.46 | 6.72 | na | Escondido | 62.95 | 96.70 | 141.51 | 282.57 |
| | 48.77 | 6.7 | 40.1 | na | 3.90 | 4.29 | 4.73 | na | Fallbrook | 72.15 | 101.93 | 136.28 | 227.27 |
| 47.07 | 47.07 | 14 | 34 | na | 4.42 | 5.21 | 6.53 | na | Helix | 73.59 | 104.53 | 145.42 | 265.39 |
| 8.86 | 10.24 | 6 | na | na | 4.31 | 4.40 | na | na | Lakeside | 34.72 | 65.52 | 100.72 | 193.12 |
| 20.19 | 20.19 | 13 | na | na | 2.45 | 3.06 | na | na | Oceanside | 34.89 | 52.04 | 76.52 | 140.78 |
| 30.08 | 38.95 | 6 | 25 | 80 | 2.53 | 4.43 | 5.23 | 6.13 | OMWD | 54.13 | 85.14 | 120.58 | 227.21 |
| | 30.91 | 5 | 10 | 22 | 2.53 | 3.95 | 5.13 | 7.90 | Otay | 47.51 | 85.80 | 126.84 | 289.97 |
| 34.02 | 34.02 | 9 | 27 | 36 | 6.87 | 7.48 | 8.37 | 9.03 | Padre Dam | 75.24 | 125.77 | 185.61 | 360.00 |
| 37.28 | 37.28 | 199 | na | na | 4.60 | 6.56 | na | na | Poway | 64.88 | 97.08 | 133.88 | 230.48 |
| 61.14 | 61.14 | 10 | 26 | na | 3.42 | 3.60 | 3.94 | na | Rainbow | 81.66 | 106.14 | 134.94 | 215.98 |
| 32.33 | 32.33 | na | na | na | 5.69 | na | na | na | Ramona | 66.47 | 106.30 | 151.82 | 271.31 |
| 32.64 | 32.64 | 6.7 | 32.1 | na | 4.56 | 5.26 | 5.57 | na | Rincon | 59.97 | 96.29 | 138.36 | 251.82 |
| | 23.92 | 4 | 12 | 18 | 4.50 | 5.04 | 7.21 | 10.13 | San Diego | 52.02 | 89.49 | 155.93 | 368.74 |
| 22.78 | 22.78 | 6 | 10 | 20 | 2.81 | 4.46 | 5.51 | 6.28 | San Dieguito | 39.64 | 74.01 | 118.86 | 250.74 |
| 40.53 | 40.53 | 7.5 | 18.5 | 82.5 | 2.30 | 2.80 | 5.16 | 6.01 | Santa Fe | 54.33 | 73.18 | 101.48 | 209.84 |
| 13.77 | | 5 | 8 | 13.5 | 3.88 | 4.75 | 6.39 | 6.90 | Sweetwater | 37.92 | 79.37 | 134.32 | 279.22 |
| | 42.80 | na | na | na | 4.70 | na | na | na | Valley Center | 71.01 | 103.92 | 141.53 | 240.26 |
| 30.04 | 38.72 | 10 | 60 | na | 4.16 | 4.70 | 4.70 | na | Vista | 63.68 | 94.42 | 132.02 | 230.72 |
| 31.42 | 36.52 | 5 | 17 | 36 | 3.08 | 4.12 | 5.33 | 7.41 | VWD Existing | 50.94 | 79.78 | 117.58 | 241.99 |
| 33.25 | 33.25 | 4 | 21 | na | 3.38 | 4.43 | 8.47 | na | VWD Proposed | 53.53 | 84.54 | 119.98 | 297.85 |
| 34.88 | | na | na | na | 3.73 | na | na | na | Yuima | 57.26 | 83.38 | 113.22 | 191.56 |
| 31.51 | 35.34 | | | | | | | | Average | 57.31 | 89.25 | 129.69 | 248.42 |

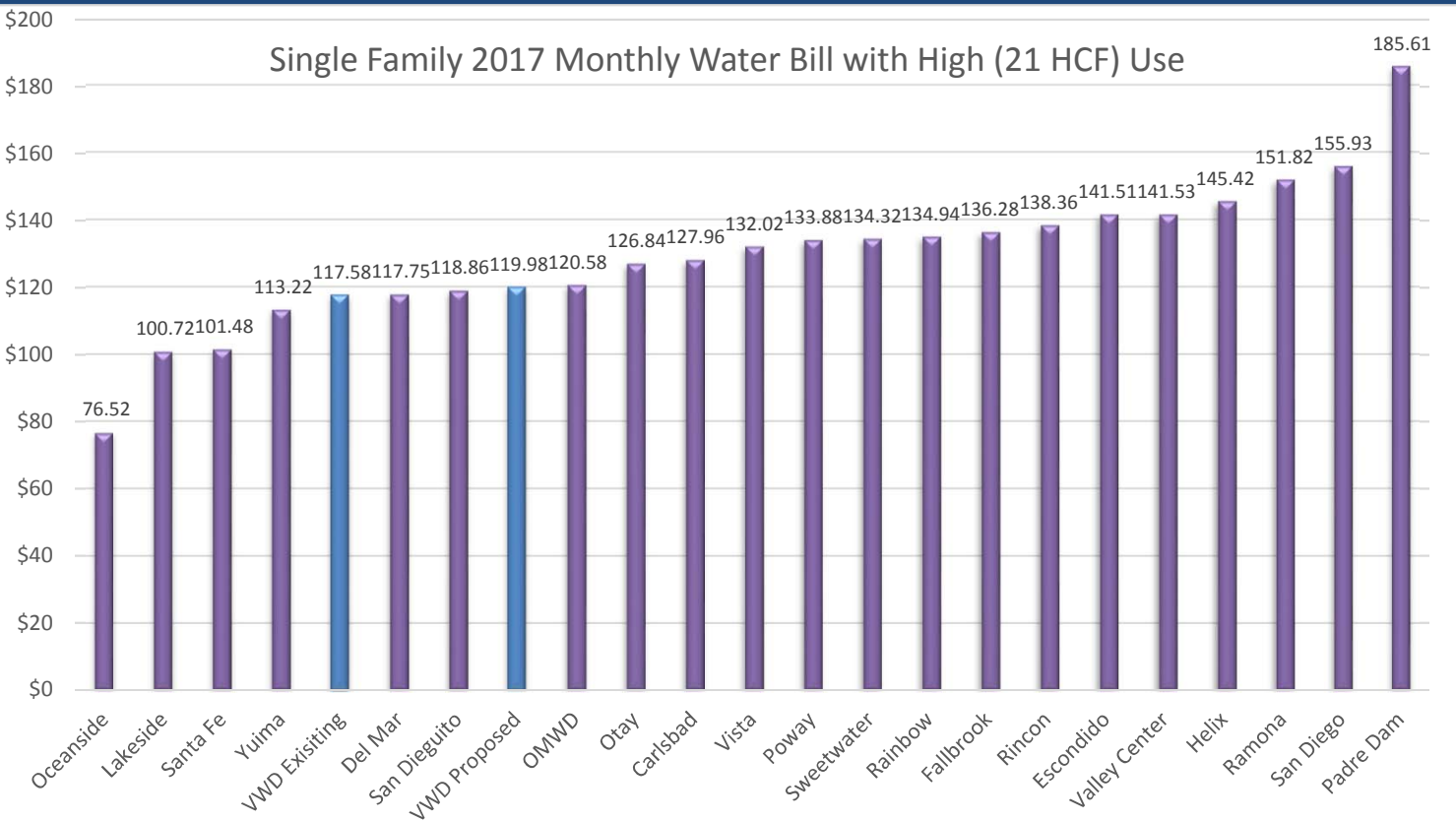


Average =57.31; Median =55.58

Rate Survey

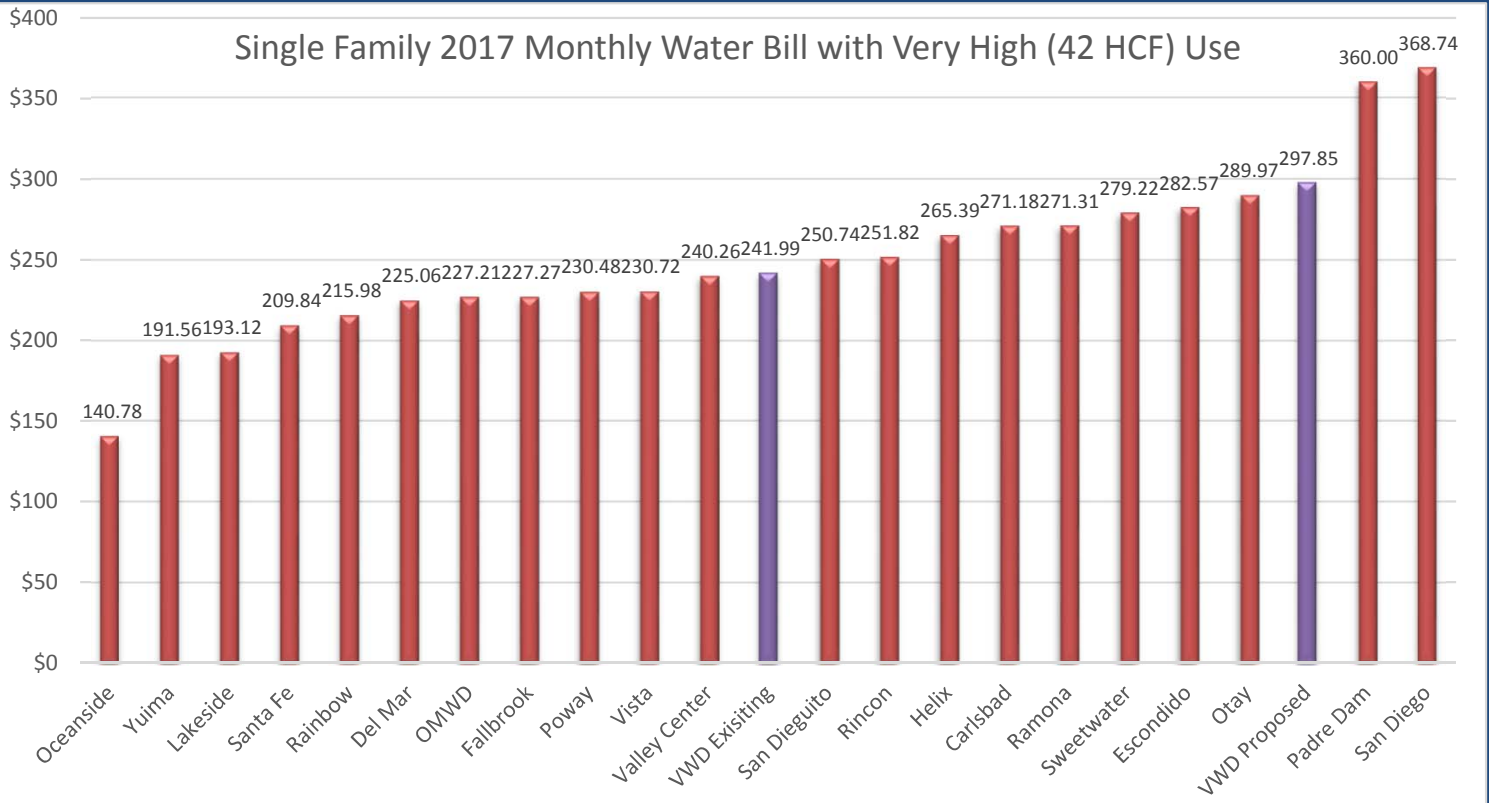


Average =89.25; Median =85.8



Average =129.69; Median =132.02

Rate Survey



Average =248.42; Median =241.99

Average Single Family Residents Monthly Water Bill with:

| Low Use (6 HCFs) | | Average Use (13 HCFs) | | High Use (21 Units) | | Very High Use (42 HCFs) | |
|------------------|-------|-----------------------|--------|---------------------|--------|-------------------------|--------|
| Lakeside | 34.72 | Oceanside | 52.04 | Oceanside | 76.52 | Oceanside | 140.78 |
| Oceanside | 34.89 | Lakeside | 65.52 | Lakeside | 100.72 | Yuima | 191.56 |
| Sweetwater | 37.92 | Santa Fe | 73.18 | Santa Fe | 101.48 | Lakeside | 193.12 |
| San Dieguito | 39.64 | San Dieguito | 74.01 | Yuima | 113.22 | Santa Fe | 209.84 |
| Otay | 47.51 | Del Mar | 78.02 | VWD Exisiting | 117.58 | Rainbow | 215.98 |
| Del Mar | 50.30 | Sweetwater | 79.37 | Del Mar | 117.75 | Del Mar | 225.06 |
| VWD Exisiting | 50.94 | VWD Exisiting | 79.78 | San Dieguito | 118.86 | OMWD | 227.21 |
| San Diego | 52.02 | Yuima | 83.38 | VWD Proposed | 119.98 | Fallbrook | 227.27 |
| VWD Proposed | 53.53 | VWD Proposed | 84.54 | OMWD | 120.58 | Poway | 230.48 |
| OMWD | 54.13 | Carlsbad | 84.65 | Otay | 126.84 | Vista | 230.72 |
| Santa Fe | 54.33 | OMWD | 85.14 | Carlsbad | 127.96 | Valley Center | 240.26 |
| Carlsbad | 55.58 | Otay | 85.80 | Vista | 132.02 | VWD Exisiting | 241.99 |
| Yuima | 57.26 | San Diego | 89.49 | Poway | 133.88 | San Dieguito | 250.74 |
| Rincon | 59.97 | Vista | 94.42 | Sweetwater | 134.32 | Rincon | 251.82 |
| Escondido | 62.95 | Rincon | 96.29 | Rainbow | 134.94 | Helix | 265.39 |
| Vista | 63.68 | Escondido | 96.70 | Fallbrook | 136.28 | Carlsbad | 271.18 |
| Poway | 64.88 | Poway | 97.08 | Rincon | 138.36 | Ramona | 271.31 |
| Ramona | 66.47 | Fallbrook | 101.93 | Escondido | 141.51 | Sweetwater | 279.22 |
| Valley Center | 71.01 | Valley Center | 103.92 | Valley Center | 141.53 | Escondido | 282.57 |
| Fallbrook | 72.15 | Helix | 104.53 | Helix | 145.42 | Otay | 289.97 |
| Helix | 73.59 | Rainbow | 106.14 | Ramona | 151.82 | VWD Proposed | 297.85 |
| Padre Dam | 75.24 | Ramona | 106.30 | San Diego | 155.93 | Padre Dam | 360.00 |
| Rainbow | 81.66 | Padre Dam | 125.77 | Padre Dam | 185.61 | San Diego | 368.74 |

Fiscal Year Distribution and Cost of Supply

| FY 2018 | Total | Meters | Commodity | | |
|-------------------------|--------------|--------------|--------------|--------------|--------------|
| | | | Tier1 | Tier2 | Tier3 |
| Projected AF demand | 13,760 | | 5,187 | 6,561 | 2,012 |
| Projected AF production | 14,580 | | | | |
| OMWD | 3,899 | | 3,899 | | |
| SDCWA | 7,181 | | 1,596 | 5,585 | |
| Desal - committed | 3,500 | | | 1,369 | 2,131 |
| Desal - excess | - | | | | - |
| Cost per AF | | | \$ 1,218 | \$ 1,277 | \$ 2,510 |
| | | | \$ 1,277 | \$ 2,510 | \$ 733 |
| Water purchases | | | \$ 4,748,982 | \$ 7,132,045 | \$ 5,348,810 |
| | | | \$ 2,038,092 | \$ 3,436,190 | \$ - |
| Water cost | \$28,530,635 | \$ 5,826,516 | \$ 6,787,074 | \$10,568,235 | \$ 5,348,810 |

| FY 2019 | Total | Meters | Commodity | | |
|-------------------------|--------------|--------------|--------------|--------------|--------------|
| | | | Tier1 | Tier2 | Tier3 |
| Projected AF demand | 14,160 | | 5,203 | 6,891 | 2,066 |
| Projected AF production | 15,000 | | | | |
| OMWD | 3,899 | | 3,899 | | |
| SDCWA | 7,455 | | 1,613 | 5,842 | |
| Desal - committed | 3,500 | | | 1,311 | 2,189 |
| Desal - excess | 146 | | | | 146 |
| Cost per AF | | | \$ 1,294 | \$ 1,356 | \$ 2,594 |
| | | | \$ 1,356 | \$ 2,594 | \$ 767 |
| Water purchases | | | \$ 5,045,306 | \$ 7,921,752 | \$ 5,678,266 |
| | | | \$ 2,187,228 | \$ 3,400,734 | \$ 111,982 |
| Water cost | \$30,454,350 | \$ 6,109,082 | \$ 7,232,534 | \$11,322,486 | \$ 5,790,248 |

| FY 2020 | Total | Meters | Commodity | | |
|-------------------------|--------------|--------------|--------------|--------------|--------------|
| | | | Tier1 | Tier2 | Tier3 |
| Projected AF demand | 14,560 | | 5,219 | 7,221 | 2,120 |
| Projected AF production | 15,420 | | | | |
| OMWD | 3,899 | | 3,899 | | |
| SDCWA | 7,729 | | 1,630 | 6,099 | |
| Desal - committed | 3,500 | | | 1,254 | 2,246 |
| Desal - excess | 292 | | | | 292 |
| Cost per AF | | | \$ 1,395 | \$ 1,461 | \$ 2,679 |
| | | | \$ 1,461 | \$ 2,679 | \$ 802 |
| Water purchases | | | \$ 5,439,105 | \$ 8,910,639 | \$ 6,017,034 |
| | | | \$ 2,381,430 | \$ 3,359,466 | \$ 234,184 |
| Water cost | \$32,907,858 | \$ 6,566,000 | \$ 7,820,535 | \$12,270,105 | \$ 6,251,218 |

Fiscal Year Distribution and Cost of Supply

| FY 2021 | Total | Meters | Commodity | | |
|-------------------------|--------------|--------------|--------------|--------------|--------------|
| | | | Tier1 | Tier2 | Tier3 |
| Projected AF demand | 14,960 | | 5,235 | 7,551 | 2,174 |
| Projected AF production | 15,850 | | | | |
| OMWD | 3,899 | | 3,899 | - | |
| SDCWA | 8,014 | | 1,647 | 6,367 | |
| Desal - committed | 3,500 | | | 1,197 | 2,303 |
| Desal - excess | 437 | | | | 437 |
| Cost per AF | | | \$ 1,483 | \$ 1,554 | \$ 2,769 |
| | | | \$ 1,554 | \$ 2,769 | \$ 840 |
| Water purchases | | | \$ 5,782,217 | \$ 9,894,318 | \$ 6,377,007 |
| | | | \$ 2,559,438 | \$ 3,314,493 | \$ 367,080 |
| Water cost | \$35,278,553 | \$ 6,984,000 | \$ 8,341,655 | \$13,208,811 | \$ 6,744,087 |

| FY 2022 | Total | Meters | Commodity | | |
|-------------------------|--------------|--------------|--------------|--------------|--------------|
| | | | Tier1 | Tier2 | Tier3 |
| Projected AF demand | 15,360 | | 5,251 | 7,881 | 2,228 |
| Projected AF production | 16,270 | | | | |
| OMWD | 3,899 | | 3,899 | | |
| SDCWA | 8,288 | | 1,664 | 6,624 | |
| Desal - committed | 3,500 | | | 1,140 | 2,360 |
| Desal - excess | 583 | | | | 583 |
| Cost per AF | | | \$ 1,570 | \$ 1,644 | \$ 2,862 |
| | | | \$ 1,644 | \$ 2,862 | \$ 879 |
| Water purchases | | | \$ 6,121,430 | \$10,889,856 | \$ 6,754,320 |
| | | | \$ 2,735,616 | \$ 3,262,680 | \$ 512,457 |
| Water cost | \$37,655,859 | \$ 7,379,500 | \$ 8,857,046 | \$14,152,536 | \$ 7,266,777 |

Budget Summary of Water Revenue and Cost

| | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 |
|------------|------------|------------|------------|------------|------------|
| Sales | 24,866,000 | 29,191,000 | 31,762,000 | 34,496,000 | 37,120,000 |
| RTS | 13,619,000 | 13,796,000 | 14,537,000 | 15,210,000 | 15,820,000 |
| Water Cost | 28,531,000 | 30,454,000 | 32,908,000 | 35,279,000 | 37,656,000 |