The District meets water demand by maximizing the use of its ground water supply, and minimizing reliance on regional supply. The District strives to manage water use to achieve four main objectives: stay within legal water rights; ensure water withdrawals do not endanger the health of the aquifer; meet contract terms for purchasing water from the regional connection; and maintain adequate flows for water quality.

Each District well or well field has an established water right i.e., the maximum a well can produce annually. The graph and table above shows the use of water rights through December 2020 by source, the graph includes a comparison of use in 2018 and 2019. Annually, the District can pump up to 7,519 acre feet or 2,450 MG of water from wells. Through December 2020, the District produced 1,833 MG of water, with 1,423 MG pumped from wells. 2020 production is 2.4% more than 2019.

In 2020 the District produced 1,833 million gallons (MG) of water for customer use, 43 MG or 2.4% more than 2019.
Net 2020 District Operating Revenues and Expenditures to Projection

- Operating revenues were $804,200 more than year-end projections, water revenues came in $727,104 more than projections and sewer revenues $77,096 more than projections. Two billing cycles from 2019 were not billed until 2020, due to the transition to monthly billing. The estimated amount not billed in 2019 is $436,000 for water and $312,000 for sewer, these amounts contributed to the overage in 2020.

- Expenditures were $398,673 less than projected, $289,196 was water expenditures and $77,096 was sewer expenditures.

- Year-end net operating actuals were $1,202,874 more than projected, resulting in a surplus of $1,016,300 in the water and $186,574 in the sewer operating funds.

- The Low Income Discount Program was modified in 2020 to provide short-term assistance in addition to long-term assistance and is now referred to as the Utility Bill Assistance Program.

**Total 2020 District Operating Revenues**

<table>
<thead>
<tr>
<th>Operating Revenues</th>
<th>2020 Budget</th>
<th>2020 Year-End Projection</th>
<th>December 31, 2020 Actual</th>
<th>% of Actual to Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Management</td>
<td>$193,180</td>
<td>$206,650</td>
<td>$266,292</td>
<td>129%</td>
</tr>
<tr>
<td>Water Operating</td>
<td>$17,141,960</td>
<td>$16,640,780</td>
<td>$17,341,552</td>
<td>104%</td>
</tr>
<tr>
<td>Sewer Operating</td>
<td>$8,163,040</td>
<td>$8,058,520</td>
<td>$8,031,982</td>
<td>100%</td>
</tr>
<tr>
<td>Water Developer Fees</td>
<td>$411,930</td>
<td>$296,070</td>
<td>$286,617</td>
<td>97%</td>
</tr>
<tr>
<td>Sewer Developer Fees</td>
<td>$411,930</td>
<td>$294,810</td>
<td>$374,587</td>
<td>127%</td>
</tr>
<tr>
<td><strong>Total Operating Revenues</strong></td>
<td>$26,322,040</td>
<td>$25,496,830</td>
<td>$26,301,030</td>
<td><strong>103%</strong></td>
</tr>
</tbody>
</table>

**Total 2020 District Operating Expenditures**

<table>
<thead>
<tr>
<th>Operating Expenditures</th>
<th>2020 Budget</th>
<th>2020 Year-End Projection</th>
<th>December 31, 2020 Actual</th>
<th>% of Actual to Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Management</td>
<td>$6,474,960</td>
<td>$6,055,815</td>
<td>$5,715,886</td>
<td>94%</td>
</tr>
<tr>
<td>Water Operations</td>
<td>$5,125,110</td>
<td>$4,822,225</td>
<td>$4,762,790</td>
<td>99%</td>
</tr>
<tr>
<td>Sewer Operations</td>
<td>$1,694,620</td>
<td>$1,621,763</td>
<td>$1,665,459</td>
<td>103%</td>
</tr>
<tr>
<td>Engineering</td>
<td>$1,387,430</td>
<td>$1,341,875</td>
<td>$1,298,869</td>
<td>97%</td>
</tr>
<tr>
<td><strong>Total Operating Expenditures</strong></td>
<td>$14,682,120</td>
<td>$13,841,678</td>
<td>$13,443,005</td>
<td><strong>97%</strong></td>
</tr>
</tbody>
</table>

*Operating revenues are allocated to more than operating expenditures including: debt service, capital replacement reserves and current capital projects, these expenditures happen through interfund transfers and are not part of operating expenditures.

**Net Operating Revenues and Expenditures**

<table>
<thead>
<tr>
<th>Net Operating Revenues and Expenditures</th>
<th>2020 Year-End Projection</th>
<th>December 31, 2020 Actual</th>
<th>Surplus (Deficit)</th>
<th>% of Actual to Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Revenues*</td>
<td>$25,496,830</td>
<td>$26,301,030</td>
<td>$804,200</td>
<td><strong>103%</strong></td>
</tr>
<tr>
<td>Operating Expenditures</td>
<td>$13,841,678</td>
<td>$13,443,005</td>
<td>$398,673</td>
<td><strong>97%</strong></td>
</tr>
</tbody>
</table>

**Net Operating Revenues and Expenditures Ended the Year Better Than Projected**

- At year-end operating revenues and expenditures are compared to year-end projections instead of budget as the District’s rate model is developed using year-end estimates. If net revenues and expenditures are different than projected it may effect the following year rate model either positively or negatively.
2020 District Operating Expenditures by Fund and Class

- **District Operating expenditures** ended the year $1,239,115 or 8% less than budget and $398,673 or 3% less than year end projections.

- **2020 Total Utility Bill Assistance Program Cost**: this includes the discount, the rebate, staffing, and outreach.
  - **Water total**: $15,186
  - **Sewer total**: $7,825

- **General Management expenditures** ended the year $759,074 or 12% less than budget and $339,929 or 6% less than year end projections.

### General Management Expenditures Through December 31, 2020

<table>
<thead>
<tr>
<th>Fund</th>
<th>2020 Budget</th>
<th>December 31, 2020</th>
<th>% Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>$8,333,320</td>
<td>$7,915,505</td>
<td>95%</td>
</tr>
<tr>
<td>Contractual</td>
<td>$5,127,320</td>
<td>$4,528,943</td>
<td>88%</td>
</tr>
<tr>
<td>Commodities</td>
<td>$1,221,480</td>
<td>$998,556</td>
<td>82%</td>
</tr>
<tr>
<td>Contingency Fund</td>
<td>$100,000</td>
<td>$969</td>
<td>1%</td>
</tr>
</tbody>
</table>

### District Expenditures Through December 31, 2020

<table>
<thead>
<tr>
<th>Fund</th>
<th>2020 Budget</th>
<th>December 31, 2020</th>
<th>% Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>$4,001,640</td>
<td>$3,815,334</td>
<td>95%</td>
</tr>
<tr>
<td>Contractual</td>
<td>$1,973,360</td>
<td>$1,482,455</td>
<td>75%</td>
</tr>
<tr>
<td>Commodities</td>
<td>$399,960</td>
<td>$417,128</td>
<td>104%</td>
</tr>
<tr>
<td>Contingency Fund</td>
<td>$100,000</td>
<td>$969</td>
<td>1%</td>
</tr>
</tbody>
</table>

### Operating Expenditures for General Management

- **General Management expenditures** ended the year $759,074 or 12% less than budget and $339,929 or 6% less than year end projections.
Water Financial Overview

**Water Customer Billing** ended the year $49,360 or 0.5% more than budget and $474,983 or 3% more than year-end projections. Switching to monthly billing in 2019 accounts for a portion of the surplus, about $436,000 was not billed in 2019. Without the change to monthly billing, revenues are estimated at 0.25% or $38,983 more than year-end estimate. The majority of water rate revenue comes from single-family customer accounts.

### Water Customer Billed Revenues Through December 31, 2020

![Bar graph showing water customer billed revenues through December 31, 2020.](chart)

<table>
<thead>
<tr>
<th></th>
<th>2020 Budget</th>
<th>December 31, 2020</th>
<th>% Billed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family Base</td>
<td>$6,394,250</td>
<td>$6,510,707</td>
<td>102%</td>
</tr>
<tr>
<td>Single Family</td>
<td>$4,765,168</td>
<td>$4,949,221</td>
<td>104%</td>
</tr>
<tr>
<td>Consumption</td>
<td>$4,765,168</td>
<td>$4,949,221</td>
<td>104%</td>
</tr>
<tr>
<td>Multi-Family Base</td>
<td>$4,765,168</td>
<td>$4,949,221</td>
<td>104%</td>
</tr>
<tr>
<td>Multi-Family</td>
<td>$4,765,168</td>
<td>$4,949,221</td>
<td>104%</td>
</tr>
<tr>
<td>Consumption</td>
<td>$4,765,168</td>
<td>$4,949,221</td>
<td>104%</td>
</tr>
<tr>
<td>Irrigation Base</td>
<td>$1,216,084</td>
<td>$1,220,808</td>
<td>100%</td>
</tr>
<tr>
<td>Irrigation</td>
<td>$1,216,084</td>
<td>$1,220,808</td>
<td>100%</td>
</tr>
<tr>
<td>Consumption</td>
<td>$1,216,084</td>
<td>$1,220,808</td>
<td>100%</td>
</tr>
<tr>
<td>Commercial/Other</td>
<td>$568,532</td>
<td>$539,989</td>
<td>95%</td>
</tr>
<tr>
<td>Total</td>
<td>$568,532</td>
<td>$539,989</td>
<td>95%</td>
</tr>
<tr>
<td></td>
<td>$2,162,098</td>
<td>$2,087,372</td>
<td>97%</td>
</tr>
<tr>
<td></td>
<td>$2,162,098</td>
<td>$2,087,372</td>
<td>97%</td>
</tr>
<tr>
<td></td>
<td>$750,986</td>
<td>$626,451</td>
<td>83%</td>
</tr>
</tbody>
</table>

### Water Operating Expenditures Through December 31, 2020

![Bar graph showing water operating expenditures through December 31, 2020.](chart)

<table>
<thead>
<tr>
<th></th>
<th>2020 Budget</th>
<th>December 31, 2020</th>
<th>% Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>$1,870,980</td>
<td>$1,698,210</td>
<td>91%</td>
</tr>
<tr>
<td>Contractual</td>
<td>$2,799,750</td>
<td>$2,730,254</td>
<td>98%</td>
</tr>
<tr>
<td>Commodities</td>
<td>$454,380</td>
<td>$334,326</td>
<td>74%</td>
</tr>
</tbody>
</table>

### Water Operating

- Expenditures ended the year $326,320 less than budget and $59,435 less than year end projections.
- 2020 Total Utility Bill Assistance Program Cost for Water: $15,186, this includes the discount, the rebate, staffing, and outreach.

---

Financial and Business Metrics Report as of December 31, 2020
Sewer Financial Overview

Total Sewer Customer Billing ended the year $2,574 or 0.2% more than budget but $13,258 or 0.2% less than the year-end projection. Switching to monthly billing in 2019 accounts for a portion of the 2020 revenue, about $312,000 was not billed in 2019. Without the change to monthly billing, revenues are estimated at 4.4% or $325,258 less than year-end estimate.

The majority of sewer customer revenue comes from single-family accounts.

Sewer Operating

- Expenditures ended the year $29,161 less than budget but $43,696 or 3% more than year-end projections. The largest driver of the overage was commodities due to some non-critical pump failures and the City of Sammamish’s casting adjustments and overlays project.

- 2020 Total Utility Bill Assistance Program Cost for Sewer: $7,825, this includes the discount, the rebate, staffing, and outreach.

### Sewer Customer Billing Through December 31, 2020

<table>
<thead>
<tr>
<th></th>
<th>2020 Budget</th>
<th>December 31, 2020</th>
<th>% Billed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>$5,001,949</td>
<td>$5,183,748</td>
<td>104%</td>
</tr>
<tr>
<td>Multi-Family</td>
<td>$1,714,006</td>
<td>$1,717,437</td>
<td>100%</td>
</tr>
<tr>
<td>Commercial/Other</td>
<td>$715,585</td>
<td>$532,929</td>
<td>74%</td>
</tr>
</tbody>
</table>

### Sewer Operating Expenditures Through December 31, 2020

<table>
<thead>
<tr>
<th></th>
<th>2020 Budget</th>
<th>December 31, 2020</th>
<th>% Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>$1,139,130</td>
<td>$1,139,259</td>
<td>100%</td>
</tr>
<tr>
<td>Contractual</td>
<td>$310,260</td>
<td>$292,881</td>
<td>94%</td>
</tr>
<tr>
<td>Commodities</td>
<td>$245,230</td>
<td>$233,319</td>
<td>95%</td>
</tr>
</tbody>
</table>
Engineering Overview

Operating Expenditures for Engineering

- **Engineering expenditures** ended the year $88,561 or 6% less than budget and $43,006 or 3% less than the year-end projection.

- $208,348 of Engineering personnel expenditures through December 31, 2020 were reimbursed by development revenues.

General Business Metrics

Through December 31, 2020, 24% of Engineering and associated overhead time were devoted to Developer Extension Agreements (DEAs) and were reimbursed by developers, 26% was budgeted.

The chart to the right shows the proportion of actual Engineering time spent on executed DEAs and Capital Projects (CP) compared to budgeted time.

When a property owner or developer proposes to build a house or development, typically one of the first steps in feasibility is a Pre-Application meeting with the local jurisdictions. Through December 2020 the District was invited to 37 Pre-Application meetings. 839 total staff hours were spent on pre-development services and new service availability through December.

There were 10 new, 13 completed (finalized, phasing or 23 month) and 80 active DEAs through December 31, 2020. Active DEAs included, 41 in planning, 16 in design and 23 in the construction phase. The Engineering departments main focus is capital projects, outsourcing the review of Developer Extension projects can be necessary. In 2020, no projects were outsourced for review or inspection services.

In addition to DEAs and CPs, there were 245 permits submitted by the City of Sammamish and City of Issaquah requiring review from Engineering and Planning. A total of 166 hours were spent reviewing these permits.
The District’s Fund Balances ended the year more than anticipated:

- Water and sewer operating fund balances ended the year greater than projected due to capital expenditures not occurring in 2020.

- Water and sewer capital R&R transfers occurred as planned. In addition, the fund balances ended the year greater than projected due to capital expenditures not occurring in 2020.

- Water and sewer GFC and LFC fund balances ended the year greater than projected due to capital expenditures not occurring in 2020 and revenues exceeding year-end estimate.

- The Debt Service Fund balance exceeded projections.

### General Business Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>District Bond Rating</strong></td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
</tr>
<tr>
<td><strong>Debt Ratio</strong></td>
<td>5.3%</td>
<td>3.9%</td>
<td>3.4%</td>
</tr>
<tr>
<td><strong>Debt Service Coverage</strong></td>
<td>4.0</td>
<td>22</td>
<td>28</td>
</tr>
<tr>
<td><strong>Billing Accuracy (per 10,000 bills)</strong></td>
<td>0.6</td>
<td>0.9</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>Total Accounts per Employee</strong></td>
<td>547</td>
<td>534</td>
<td>523</td>
</tr>
<tr>
<td><strong>Change in Sewer Customer Accounts</strong></td>
<td>271</td>
<td>231</td>
<td>204</td>
</tr>
<tr>
<td><strong>Sewer Billing Revenue (excluding Metro)</strong></td>
<td>$ 6,609,858</td>
<td>$ 6,753,375</td>
<td>$ 7,427,842</td>
</tr>
<tr>
<td><strong>Change in Water Customer Accounts</strong></td>
<td>331</td>
<td>237</td>
<td>204</td>
</tr>
<tr>
<td><strong>Water Billing Volume</strong></td>
<td>1,795 MG</td>
<td>1,649 MG</td>
<td>1,772 MG</td>
</tr>
<tr>
<td><strong>Water Billing Revenue</strong></td>
<td>$15,266,263</td>
<td>$14,769,840</td>
<td>$16,322,173</td>
</tr>
</tbody>
</table>

*Preliminary data, final is dependent on the Financial Statement and will be updated in the June Financial and Business Metrics Report.*
# 2020 Capital Program (CP) Expenditures

Total CP Program expenditures as of December 31, 2020 are at 24.7% of the 2020 budget, including carryovers from 2019. There were 39 active projects in 2020, of those 8 are programmatic projects, 12 are under design, 9 are active/under construction, and 10 were completed.

## Total Combined, Water and Sewer Capital Projects

<table>
<thead>
<tr>
<th>Total Water, Sewer and Combined Capital Projects</th>
<th>2020 Budget with Carryover</th>
<th>2020 Actual</th>
<th>2020 Remaining</th>
<th>YTD % Expended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Combined Water and Sewer Capital Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Combined Water and Sewer General Projects</td>
<td>1,387,178</td>
<td>438,594</td>
<td>948,583</td>
<td>31.6%</td>
</tr>
<tr>
<td><strong>Total Combined Water and Sewer Projects</strong></td>
<td>1,387,178</td>
<td>438,594</td>
<td>948,583</td>
<td>31.6%</td>
</tr>
<tr>
<td><strong>Water Capital Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Water General Projects</td>
<td>750,968</td>
<td>514,582</td>
<td>236,386</td>
<td>68.5%</td>
</tr>
<tr>
<td>Total Supply - Wells Projects</td>
<td>3,805,753</td>
<td>786,601</td>
<td>3,019,152</td>
<td>20.7%</td>
</tr>
<tr>
<td>Total Booster Pumps Projects</td>
<td>50,000</td>
<td>-</td>
<td>50,000</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total Storage - Reservoirs Projects</td>
<td>3,016,239</td>
<td>56,445</td>
<td>2,959,794</td>
<td>1.9%</td>
</tr>
<tr>
<td>Total Water Mains Projects</td>
<td>2,310,403</td>
<td>645,023</td>
<td>1,665,381</td>
<td>27.9%</td>
</tr>
<tr>
<td><strong>Total Water Projects</strong></td>
<td>9,933,363</td>
<td>2,002,651</td>
<td>7,930,712</td>
<td>20.2%</td>
</tr>
<tr>
<td><strong>Sewer Capital Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Sewer General Projects</td>
<td>839,335</td>
<td>472,665</td>
<td>366,670</td>
<td>56.3%</td>
</tr>
<tr>
<td>Total Lift Station Projects</td>
<td>235,523</td>
<td>14,268</td>
<td>221,255</td>
<td>6.1%</td>
</tr>
<tr>
<td>Total Sewer Mains Projects</td>
<td>1,143,558</td>
<td>302,190</td>
<td>841,368</td>
<td>26.4%</td>
</tr>
<tr>
<td>Total Grinder Pump Projects</td>
<td>320,000</td>
<td>192,280</td>
<td>127,720</td>
<td>60.1%</td>
</tr>
<tr>
<td><strong>Total Sewer Projects</strong></td>
<td>2,538,416</td>
<td>981,402</td>
<td>1,557,014</td>
<td>38.7%</td>
</tr>
<tr>
<td><strong>Total Combined, Water and Sewer Capital Projects</strong></td>
<td>13,858,957</td>
<td>3,422,647</td>
<td>10,436,309</td>
<td>24.7%</td>
</tr>
</tbody>
</table>

## Capital Project Cost performance

One goal of Capital Project Cost performance is to have final construction costs within 10% of the original bid. In 2020, 2 of the 10 completed projects required bidding, both or 100% were within 10% of the original bid.

### 2020 Completed Projects Construction Costs Bid to Actual

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Original Bid Amount</th>
<th>Construction Costs</th>
<th>Under /(Over Bid)</th>
<th>Bid to Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well 13 Pump Enclosure</td>
<td>$ 185,900</td>
<td>$ 176,583</td>
<td>$ 9,317</td>
<td>95%</td>
</tr>
<tr>
<td>Waverly Hills 199th Sewer NSP-1</td>
<td>$ 152,259</td>
<td>$ 152,259</td>
<td>-</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 338,159</td>
<td>$ 328,842</td>
<td>$ 9,317</td>
<td></td>
</tr>
</tbody>
</table>

A second goal of Capital Project Cost performance is to have final project costs within 10% of the total project budget. In 2020, 10 projects were completed, 3 or 30% were completed within 10% of the total project budget.

### Project Name

#### Water and Sewer Joint Funded Projects

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Total Project Budget</th>
<th>Actual</th>
<th>Surplus /(Deficit)</th>
<th>% of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWIA Risk and Resilience Assessemnt</td>
<td>$ 200,000</td>
<td>$ 170,996</td>
<td>$ 29,004</td>
<td>85%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 200,000</td>
<td>$ 170,996</td>
<td>$ 29,004</td>
<td></td>
</tr>
</tbody>
</table>

#### Water Only Funded Projects

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Total Project Budget</th>
<th>Actual</th>
<th>Surplus /(Deficit)</th>
<th>% of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Comprehensive Plan</td>
<td>$ 491,000</td>
<td>$ 355,587</td>
<td>$ 135,413</td>
<td>72%</td>
</tr>
<tr>
<td>Well 13 Pump Enclosure</td>
<td>$ 402,000</td>
<td>$ 157,438</td>
<td>$ 244,562</td>
<td>39%</td>
</tr>
<tr>
<td>Flynn 218th Water Main</td>
<td>$ 180,000</td>
<td>$ 15,365</td>
<td>$ 164,635</td>
<td>9%</td>
</tr>
<tr>
<td>Sammamish Towncenter SE 4th St Water and Sewer Main</td>
<td>$ 514,193</td>
<td>$ 452,247</td>
<td>$ 61,946</td>
<td>88%</td>
</tr>
<tr>
<td>Zackuse Creek Fish Passage</td>
<td>$ 25,000</td>
<td>$ 16,374</td>
<td>$ 8,626</td>
<td>65%</td>
</tr>
<tr>
<td><strong>Total Completed Projects</strong></td>
<td>$ 1,612,193</td>
<td>$ 997,012</td>
<td>$ 615,182</td>
<td></td>
</tr>
</tbody>
</table>

#### Sewer Only Funded Projects

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Total Project Budget</th>
<th>Actual</th>
<th>Surplus /(Deficit)</th>
<th>% of Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Hill Dry Future Sewer</td>
<td>$ 100,000</td>
<td>$ 61,124</td>
<td>$ 38,876</td>
<td>61%</td>
</tr>
<tr>
<td>Inglewood 211th Ave NE Sewer Easement</td>
<td>$ 20,860</td>
<td>$ 20,208</td>
<td>$ 652</td>
<td>97%</td>
</tr>
<tr>
<td>Sammamish Towncenter SE 4th St Water and Sewer Main</td>
<td>$ 2,513,858</td>
<td>$ 2,308,826</td>
<td>$ 205,032</td>
<td>92%</td>
</tr>
<tr>
<td>Sewer Station Flow Meters</td>
<td>$ 218,500</td>
<td>$ 14,824</td>
<td>$ 203,676</td>
<td>7%</td>
</tr>
<tr>
<td>Waverly Hills 199th Sewer NSP-1</td>
<td>$ 188,579</td>
<td>$ 170,832</td>
<td>$ 17,747</td>
<td>91%</td>
</tr>
<tr>
<td>Zackuse Creek Fish Passage</td>
<td>$ 25,000</td>
<td>$ 16,373</td>
<td>$ 8,627</td>
<td>65%</td>
</tr>
<tr>
<td><strong>Total Completed Projects</strong></td>
<td>$ 3,066,797</td>
<td>$ 2,592,187</td>
<td>$ 474,609</td>
<td></td>
</tr>
</tbody>
</table>
Water and Sewer System Depreciation

The District tracks the balances in the water and sewer capital replacement reserve funds. As the annual capital replacement reserve allocations accumulate, we compare the balance to the aggregate system depreciation. Our target fund balances are the aggregate depreciation. Every year aggregate system depreciation will increase as the remaining life of the system is consumed. Current fund balances are 18% of the overall target for water and 19% for sewer. However, the District’s long-term fiscal plans project increasing annual contributions to close the gap on the target to ensure funds are available when system replacements are needed. The tables below summarizes the current water and sewer capital replacement reserve balance compared to the targets.

Water Capital Replacement Reserves Compared to Aggregate System Depreciation

<table>
<thead>
<tr>
<th>2020</th>
<th>2020 Replacement Value</th>
<th>Aggregate Depreciation</th>
<th>Est. Year-End Fund Balance</th>
<th>% of Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 781,414,000</td>
<td>$ 209,552,683</td>
<td>$ 38,688,729</td>
<td>18%</td>
</tr>
</tbody>
</table>

Sewer Capital Replacement Reserves Compared to Aggregate System Depreciation

<table>
<thead>
<tr>
<th>2020</th>
<th>2020 Replacement Value</th>
<th>Aggregate Depreciation</th>
<th>Est. Year-End Fund Balance</th>
<th>% of Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$ 394,107,000</td>
<td>$ 94,718,049</td>
<td>$ 17,862,670</td>
<td>19%</td>
</tr>
</tbody>
</table>
Water and Sewer GFC Projection

Developer Extension Agreements (DEAs) General Facility Charges (GFCs) are typically paid by a developer during the project design phase prior to beginning construction. Once a DEA has entered the design stage GFC payment can typically be expected within two years. However, progress of each project relies on many factors and timing may vary.

As of December 31, 2020 there were 61 water and 63 sewer ERUs in the design phase. Over the next 24 months, GFC revenues from these projects are projected to be about $200K for water and sewer. In addition to projects in the design phase, there are about 370 water and sewer ERUs in the planning phase. The planning phase can last several years.

![Graph showing Total Water and Sewer GFC Revenue 2015 through December 2020 and Total Water and Sewer LFC Revenue 2015 through December 2020. The graph compares the budgeted and actual revenues for water and sewer GFC and LFC from 2015 to 2020.

2020 water and sewer GFC and water LFC revenues exceeded budget and year-end estimate. Sewer LFC revenues fell short of budget and exceeded the year-end estimate.

Water ERUs in Design Phase (GFC's expected within 24 months) and Sewer ERUs in Design Phase (GFC's expected within 24 months) are also shown. The graph indicates that 61 water ERUs and 63 sewer ERUs are in the design phase as of December 31, 2020. The projected GFC revenue for water is $201,000 and for sewer is $207,000.
Available Inventory for New Water and Sewer Meters

Final DEAs are new developments that have completed the water and/or sewer portion of the project and are ready for the installation of a new meter, resulting in a new District customer account. The graphs below show the current inventory of potential new water and sewer accounts by Equivalent Residential Unit (ERU). This is based on final DEA ERUs, less new account ERUs added. DEAs typically represent about 90% of new account ERUs in the District during times of economic growth.

The District currently has 210 water and 223 sewer ERUs in construction, once these projects are final these ERUs will increase the inventory of potential new account ERUs.

General Business Metrics Continued
The Water System Failure Rate in 2020 was 6.6, due to 4 main breaks and 16 service line leaks throughout the Districts 303.5 miles of piping for the year. The total cost to repair the failures was $43,305.

The failure rate is the number of main breaks and service line leaks per 100 miles of piping. According to the Partnership for Safe Water (PSW) performance improvement program main break frequency should not exceed a failure rate of 15 per 100 miles.

The annual peak day water demand is typically at least two times the average daily water demand and occurs in the summer. The 2020 annual average daily water demand was 5.01 million gallons. The annual average daily water demand decreased 9.1% from 2018 to 2019 and increased 2.2% from 2019-2020.
The graph below shows the peak day, and average daily water demand by month as well as annual average daily water demand for the last three years.

**Total Water Demand per Equivalent Residential Unit (ERU) since 2015** during non peak months October-May has averaged between 136-174 gallons per day in the Plateau and Cascade Zones. Whereas peak months June-September in the Cascade View Zone averaged 356 gallons per ERU per day and the Plateau Zone averaged 283 gallons.

**Water Demand Billed per ERU Plateau and Cascade Zones**

Off-Peak Months: January-May, October-December
Peak Months: June-September
The Operations department consists of Ops Admin; Water; Sewer; and the Building, Maintenance, and Grounds sections. The annual Operations Plan is presented to the Board of Commissioners each year to highlight work and performance measures specific to that department.

Throughout 2020 COVID dominated the news and was very impactful to the District, including Operations. One of the impacts was staffing was split for the first four months. This created a backlog of scheduled work that couldn’t get done because of the lack of labor hours to perform the tasks. At the end of the year the Operations leadership prioritized the backlog along with upcoming work to minimize negative impact to asset condition, regulatory compliance, and ultimately, customer service. We are confident that the work plan for 2021 accomplishes all of the goals stated and that we will continue to provide excellent service to our customers.
Infiltration and Inflow

Infiltration and Inflow (I&I) averaged 12% during peak months in 2018, 4% in 2019 and 7% in 2020. I&I through December 2019 and 2020 was the lowest it has been in years, potentially due to reduced rainfall. Rainfall in peak rain months November-April in the 2019 water year was 12 inches and 2020 4 inches less than 2016-2018 during the same period.

Ideally, I&I would not occur and rainwater would not be entering the sewer system. However, when storm water goes through the system, the excess water must be pumped along with normal flows. With no I&I, there would be an overlap between average water pumped in peak rainfall months (red line), and non-peak months (black line) in the illustration below. Additionally, average gallons pumped (the green bars) would be at or below the black line.

The I&I year is based on the U.S. Geological Survey “water year” defined as the 12-month period October 1, for any given year through September 30, of the following year. Using this method provides a full rainy season for comparative purposes where a calendar year would cut the rainy season in two.

![Bar chart showing infiltration and inflow](chart.png)

Sewer System Operations and Reliability

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer Operations Overtime Call outs (hours/cost)</td>
<td>332/$16,658</td>
<td>358/$18,472</td>
<td>527/$33,496</td>
</tr>
</tbody>
</table>

### 2020 Sewer Overtime
Grinder pumps continue to be a driver of overtime accounting for 30% of all overtime hours.

Sewer System Efficiency

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer Accounts per Sewer Employee</td>
<td>563</td>
<td>561</td>
<td>576</td>
</tr>
<tr>
<td>Sewer Accounts per Mile of Sewermain</td>
<td>68</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td>Cost per Foot to Maintain Sewer System</td>
<td>$1.49</td>
<td>$1.68</td>
<td>$1.67</td>
</tr>
<tr>
<td>Sewer Overflows</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Sammamish Plateau Water will provide safe, efficient, and reliable water and sewer services by being a leader in the planning and the practice of fiscal and environmental stewardship.

Jay Krauss, General Manager
Angel Barton, Finance Manager
Tammy Whipple, Assistant to the General Manager
Jillian Hostenske, Financial Analyst
Marissa Huntley, Executive Assistant

Engineering Department
Planning Department
Finance Department
Operations Department

www.spwater.org

Clean water is always there because we’re always here

Our customers are at the center of everything we do. Keeping that first and foremost - our dedicated, expert staff, leveraged by technology, provide 5-star service - even during a pandemic.

2020 started out as any other year at the District. The big news for the year was the rollout and implementation of a new CMMS system - Cityworks. The last data cutover from our old system happened in January. Less than two months into the implementation, the world and the way things were, basically came to a halt. The way we would do business would potentially forever change due to the COVID-19 virus. Because of the quick response of the District to the COVID outbreak, the important work of maintaining the water and sewer systems although modified, went on uninterrupted.

In the past, field staff returned to the office or called someone to access technology systems which hold data necessary for completing maintenance, monitoring performance and making decisions. In response to COVID-19, all operations and maintenance personnel were provided with laptops and secure remote access to tools necessary to efficiently and effectively complete the important work they perform to keep water and sewer safe and reliable for District customers. In addition, the remote access enables staff to immediately respond to emergency situations, decreasing emergency response times and eliminating the need to return to the office.

Working together, we took care of our business, so our customers could take care of their priorities.