Our mission is to provide high quality water and excellent customer service while effectively managing District infrastructure for a reliable water system today and for future generations.

History of District
Highline Water District was formed following a special election on August 12, 1946. Since its initial formation, the District experienced several annexations, mergers, and withdrawals resulting in the District's currently established boundary. Today, the District serves portions of seven cities including Burien, Des Moines, Federal Way, Kent, Normandy Park, SeaTac and Tukwila along with portions of unincorporated King County and the Port of Seattle. The current retail service area is approximately 18 square miles and serves a population of over 70,000 people.

System Inventory
The District's transmission and distribution system is comprised of six pump stations, nine water storage facilities totaling 21.35 MG, eleven pressure zones, 29 pressure reducing stations, ten emergency interties and over 299 miles of water main ranging from 2-inch to 36-inch in diameter. Seattle Public Utilities supplies approximately 70% of the systems water through three source locations. The remaining 30% water source is produced through four District owned groundwater wells and three treatment facilities. At the end of 2016, the District had 18,498 active meters, ranging in size from 5/8 inch to 8 inch, including 112, 3-inch and larger meters.

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Miles Of Water Main by Type

- Ductile Iron: 179
- Asbestos Cement: 71
- Cast Iron: 46
- Other: 3

Legend
- Service Area Boundary
- Burien
- Normandy Park
- Kent
- Seattle
- SeaTac
- Tukwila
- Federal Way
- King County
CAPITAL IMPROVEMENT PROGRAM

2016 COMPLETED PROJECTS

**13-1A Angle Lake Water Main Replacement Project**

The District maintained several small 4” and 6” diameter AC water mains along the northwest, south and east side of Angle Lake in the City of SeaTac. The mains crossed through private property along the lake and within Military Road between 46th Ave S and S 198th St. Projects 13-1A and 13-1B included replacing approximately 8,900 LF of smaller diameter AC main that is nearing the end of its useful life with new modern materials.

In early 2012, the District awarded a consultant contract to BHC Consultants. The first phase of the project included preliminary engineering to determine feasible replacement alternatives. The first phase was complete in February 2013.

The second phase included design and contract document preparation for construction. The phase also included obtaining permits, easement acquisition, and community involvement. During the consultant scoping, the District elected to divide the project into two separate, smaller projects for efficiencies and schedule. **Project 13-1B Military Road S at Angle Lake** included the portion of the original project within city right-of-way along Military Road. **Project 13-1B** was completed in early 2015. The remaining work within the easements around the lake was renumbered as Project 13-1A (this project).

Project 13-1A included the installation of approximately 6,900 LF of new water main, hydrants and appurtenances. In total, the District secured over 104 easements from the property owners around the lake.

A construction contract was awarded in July 2015. Construction began in September and was completed in July 2016. The Board authorized one change order adding approximately 580 LF of pipe along S 189th St to complete the remaining AC replacement after acquisition of the last easement. The final construction amount was approximately $2.30 Million.

The District applied for a low-interest Public Works Trust Fund loan to fund projects. The District received a loan for $2.21 million to cover expenses in Project 13-1A and 13-1B. The remaining funding was paid through rates and existing capital reserves. The total project cost for Project 13-1A was approximately $3.68 million. The combined total for both projects was $4.86 million.

**Project 13-3 City of SeaTac 24th/28th Ave S Extension (S 200th St - S 208th St)**

The City of SeaTac identified the need to connect 28th/24th Ave S between S 200th St and S 208th St to support the SeaTac Regional Growth Center (STRGC). The project will be the last segment to complete a five lane principal arterial corridor with bicycle lanes and sidewalks from S 188th St to S 216th St. The project provides a vital connection within and between the STRGC, the City of Des Moines, the Port of Seattle, Sound Transit’s 200th St Link Light Rail Station and the future SR 509. In addition, the project will create a parallel alternative to SR 99 for aviation support freight vehicles.

The District has several existing water mains at S 200th St and S 208th St but no pipes along the project segment. The estimated project length is 1,000 LF of 8” diameter DI water main. The new alignment will have minimal water connections and primarily designed for fire suppression along the project. A significant portion of the project area is within the future SR509 interchange.

The District retained Kennedy Jenks in 2014 for the design of the water project. The City anticipated construction in 2015; however, the City delayed the project to incorporate a new overpass in the design for the future SR509 highway.

Construction began in 2016. At the end of 2016, the water work was substantially complete except for minor punchlist items. The City will continue their work into 2017 before addressing final punchlist items for the water work. The estimated construction cost is $130,000. The project is funded by water rates and capital reserves.
COMPLETED PROJECTS 2016

Project 14-1 2016 Comprehensive Water System Plan Update

WAC 246-290-100 requires water purveyors to update their comprehensive water plan every six years. Highline Water District’s current water system plan was formally approved by Department of Health (DOH) on July 20, 2009.

District staff contacted DOH to discuss a water industry proposal to change plan updates from a six year to a 10 year schedule. DOH adopted the final rule change in December 2016.

Recent trends in water demands and population are less than forecasted projection in the 2008 Water System Plan. The economy, reduction in new development, and changes in water use by existing customers caused the reduction. Because the trend is less than forecasted, the assumptions in the existing Plan appear conservative.

The District retained the services of Carollo Engineers to develop the new plan. The plan focused on a 10 year and 20 year planning horizon anticipating DOH will change to 10 year updates. In addition, Carollo updated the existing hydraulic model and evaluated several different supply scenarios to be used as part of a future Lakehaven Water and Sewer District supply. Also, FCSG reviewed the District’s rates and capital connection charges.

The Board of Commissioners approved the final plan on September 19, 2016. King County Utilities Technical Review Committee (UTRC) recommended approval to the King County Council on October 20, 2016. The final plan is in review by DOH for approval. King County will approve the plan first quarter 2017. The final plan cost was approximately $270,000. The District funded the plan by existing water rates and capital reserves.

Project 14-3 Manhattan View Water Main Replacement Project

In 2012, the District selected the Manhattan area in Normandy Park as a candidate for a future CIP. The project area is generally bounded between 2nd Ave SW and 7th Place SW in the residential neighborhood north of SW Normandy Road. The area is served by approximately 10,500 LF of small diameter AC pipe ranging in size from 4-inch and 8-inch. The District experienced several small main breaks in the past due to relatively higher pressures in the area.

The District submitted the project in 2012 for PWTF funding. The project met the criteria and the Public Works Board selected it for funding; however, the legislature decided not to fund the PWTF in the biennium. This caused the project to lose funding. The District believed the project remained a high priority and decided to prioritize it for replacement from existing water rates and capital reserves.

The District bid and awarded the project to Miles Resources in March 2016. Construction began in May and was completed in August. The final construction amount was $2.12 million. The Board accepted the project as complete on October 25, 2016.

Under the contract, the District awarded a change order to complete emergency work on 2nd Ave S between S 202nd St and S 204th St in Des Moines. The District experienced two breaks within three weeks on a 500 LF segment of AC main. Miles replaced the pipe and the subsequent road damage on at time-and-material basis. The construction cost for the emergency work was $251,000. The final project cost including the emergency work was approximately $2.57 million and funded by existing rates and capital reserves.
Project 15-1 Tyee Well Rehabilitation

The District commissioned the Tyee Well and Treatment Plant in 2004. Within the first year, production began to decrease due to the buildup of iron-related bacteria found within the well formation.

Over time, the bacterial fills the annular space within the filter pack and piping causing the pump to work harder, become less efficient and uses more power to maintain a static production rate. If untreated, it would have caused the mechanical components to prematurely wear and fail.

The District implemented several well rehabilitation methods in the past. The rehabilitation methods yielded short-term increases in production but the flow continued to decline over time.

In April 2015, the District contracted to have the equipment repaired and replaced. The District retained RH2 Engineering to size a replacement pump and motor. The replacement pump was delivered in early 2016.

RH2 & Robinson Noble explored options to create a more permanent solution to increase production from the well. Unfortunately, there are few tested methods other than redevelopment to address the iron bacterial issue. The District did not select more experimental options that require the use of chemical additives to the groundwater.

Rehab work was completed in October 2015 and a new well pump was reinstalled in July 2016. The well went back in service August 2016.

The District invested approximately $323,000 into rehabilitating the well, replacing the pump and motor, and investigation into project options. Current production is 500 GPM for 16 hours daily/6 days a week. Staff will continue to monitor and adjust accordingly. Funding for the project was by existing water rates and capital reserves.

Project 16-5 S 268th St Water Main Replacement Project

In March 2016, the City of Des Moines informed local utilities of a Federal grant they received to install new sidewalk and stormwater improvements along S. 268th St. between 16th Ave S. and Pacific Highway S. in the Woodmont neighborhood. The City also stated their proposed improvements would conflict with the existing infrastructure of several utilities; therefore, the City exercised its Franchise right to require agencies to move their facilities to accommodate the project.

The asbestos cement (AC) water main identified in conflict by the City is approximately 60 years old and 6-inch in diameter. The District’s CIP prioritizes small diameter AC mains for replacement due to their higher susceptibility for failure compared to other pipe materials. Using the City project as an opportunity to replace aging infrastructure, the District decided to replace all AC mains within the Woodmont neighborhood. The total length of the project was 1,950 LF.

Upon learning of the District’s plan to replace the water mains, Midway Sewer decided to replace their aging infrastructure. The agencies entered into an Interlocal Agreement for the joint work. Highline would be the lead agency. In addition, the District will split the paving cost along S 268th St between PSE and Midway.

The Board awarded a contract to SCI Infrastructure in May 2016. The work was substantially complete in September.

There are warranty issues regarding the paving work along two streets. The District is working to resolve the defective paving work. Due to the late timing in the year to complete paving, the final resolution will not happen until spring 2017. The anticipated construction costs for the water work is $460,000. The District funded the project by rates and capital reserves.
ONGOING PROJECTS 2016

Project 14-2 560 Zone Lakehaven South Supply Study and Design

Lakehaven Utility District (LUD), a regional partner in the Tacoma Treatment Plant, began receiving filtered water from the source in 2015. LUD approached the District to discuss selling an average of 2.0 MGD to Highline.

The benefit of purchasing water from LUD is to have a redundant source of supply at a lower cost than Seattle Public Utilities (SPU); boost the hydraulic grade line in the southern portion of HWD, and to give additional operational flexibility to the District. The District gave a 5-year notice to SPU in August 2011 of its intention to purchase water from LUD in the future, as required by the Partial Services Contract between the agencies.

Prior to purchasing water from LUD, the District will require the approval from the Department of Health. Planning work, including a blending study will help determine the feasibility of the proposal. The District contracted with Confluence Engineering for the blending study in 2016. Staff received the final report in November 2016. From the report, the District can determine the necessary capital improvements and the Board can evaluate whether to proceed with the project.

The District allocated $50,000 in the 2016 budget for studies and evaluations. The budget for 2017 includes $125,000 for studies/evaluations/approvals and $475,000 in 2018 for any needed capital improvements. Upon completion of the initial study effort, the District can perform a more detailed budget of the necessary expenditures and a revised timeline of proposed improvements. The Board can then determine whether to proceed with the project and enter into contract negotiations with LUD. The initial funding for the project is by rates and capital reserves.

Project 16-2 Pump Station No. 8 (Crestview)

The District’s two primary water sources for the 560 Pressure Zone are Pump Station No 6 (PS6) and Pump Station No 1 (PS1). A major component for storage in the 560 Zone is the 7.6 MG Crestview Reservoir. Source water from Seattle Public Utilities and storage in the Crestview Reservoir must pump through PS6 to serve the 560 Pressure Zone.

From the 2016 Water System Plan, a second pump station serving water from the Crestview Reservoir and SPU into the 560 Pressure Zone would significantly improve redundancy in the system. The first phase was preliminary engineering and feasibility. The District selected RH2 Engineering to perform the preliminary services. Subsequent phases include design and construction scheduled for 2017 and beyond. At the end of 2016, the District is preparing a draft professional services agreement with RH2 for approval by the Board of Commissioners.

The District acquired the Harper property at 16032 42nd Ave S as the location for the pump station in November 2016.

Project 16-3 Mansion Hill Reservoir Relocation

In late 2015, Sound Transit (ST) selected the SR509/I-5 route for the Federal Way Link Light Rail Project. The proposed alignment passes adjacent to the District’s 5.0 MG 490 Zone reservoir at Mansion Hill. The close proximity of the light rail will require the relocation of the tank.

The first phase of work is preliminary engineering, including survey, geotechnical investigation, planning, permitting and overall project scoping. The work also includes contract negotiations with ST for cost reimbursement. The District executed an Interlocal Agreement for preliminary engineering with ST and a separate consultant contract with Stantec. Preliminary work should be complete by March 2017.

The preliminary investigation determined the reservoir can be replaced with a 4.5 MG reservoir; however, the new location will conflict with the existing 0.25 MG elevated tank. A future project will construct a pump station to replace the elevated tank [slated for preliminary design in 2019 (Project 16-6).]
Developer Extensions for 2016
### Accepted as Complete - in 2016

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Description</th>
<th>Address/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angle Lake Estates</td>
<td>10 Single Family Units</td>
<td>18810 41st PL S, Seatac</td>
</tr>
<tr>
<td>Blueberry Lane</td>
<td>64 Single Family Units</td>
<td>S 194th &amp; Des Moines Memorial Dr., Des Moines</td>
</tr>
<tr>
<td>Panattoni Development</td>
<td>Light Industry Facility Phase 1 Gateway Project</td>
<td>S 208th &amp; 24th Ave S, Des Moines</td>
</tr>
<tr>
<td>The Reserve at Seatac</td>
<td>Senior Living Facility</td>
<td>19707 Intl. Blvd., Seatac</td>
</tr>
<tr>
<td>Starwater</td>
<td>34 Single Family Units</td>
<td>276xx Military Rd S, King County</td>
</tr>
<tr>
<td>Scoccollo Pod B</td>
<td>37 Single Family Units</td>
<td>S 210th &amp; 37th Ave S, Seatac</td>
</tr>
</tbody>
</table>

### Ongoing Projects

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Description</th>
<th>Address/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aloft Hotel</td>
<td>144 unit Hotel</td>
<td>19030 28th Ave S, Seatac</td>
</tr>
<tr>
<td>Bellmere at Normandy Park</td>
<td>4 Multi Family Units &amp; 2 Commercial Buildings</td>
<td>18849 1st Ave S, Normandy Park</td>
</tr>
<tr>
<td>Belvedere Apts</td>
<td>Multi Family Units</td>
<td>S 209th &amp; 39th Ave S, Seatac</td>
</tr>
<tr>
<td>Des Moines Creek Business Park</td>
<td>Commercial Warehouses/Offices</td>
<td>S 211th &amp; 24th Ave S, Des Moines</td>
</tr>
<tr>
<td>Grandview Apts</td>
<td>Multi Family Units</td>
<td>3500 S 229th Pl, Kent</td>
</tr>
<tr>
<td>Highline View Estates</td>
<td>21 Single Family Units</td>
<td>240xx 22nd Ave S, Des Moines</td>
</tr>
<tr>
<td>Hyatt Place</td>
<td>156 unit Hotel</td>
<td>19518 International Blvd., Seatac</td>
</tr>
<tr>
<td>PSSC - Health Services Bldg</td>
<td></td>
<td>18010 8th Ave S, Burien</td>
</tr>
<tr>
<td>Residence Inn at Seatac</td>
<td>183 unit Hotel</td>
<td>19608 International Blvd., Seatac</td>
</tr>
<tr>
<td>S 200th Link Parking Garage</td>
<td>Parking Facility</td>
<td>200th &amp; 28th Ave S, Seatac</td>
</tr>
<tr>
<td>Sound Transit South Link</td>
<td>Light Rail Station</td>
<td>28xx S 200th ST, Seatac</td>
</tr>
<tr>
<td>SW Suburban Sewer</td>
<td>Utility Offices</td>
<td>17874 Des Moines Memorial Dr., Burien</td>
</tr>
<tr>
<td>The Pinnacles</td>
<td>22 Single Family Residences</td>
<td>12xx S 232nd St, Des Moines</td>
</tr>
<tr>
<td>Westview</td>
<td>5 Single Family Residences</td>
<td>18052 1st Pl S, Burien</td>
</tr>
</tbody>
</table>
PUBLIC INVOLVEMENT AND EDUCATION

PROFESSIONAL ORGANIZATIONS/LOCAL JURISDICTIONS GOALS:

- Remained involved in AWWA, WASWD, Seattle Operating Board and other professional organizations
- Coordinate with neighboring city officials and staff for utility tax issue. The District negotiated a Franchise Agreement with the city of Des Moines.

ENVIRONMENTAL EDUCATION

The District hosted a poster contest for local 4th & 5th graders and made a calendar showcasing the top 12 posters. 135 entries were received from six schools within the Highline Water District service area. Each student that had a poster chosen for the calendar received a gift card to Barnes & Noble Books and four copies of the calendar for their family members.

Participated in SPU regional conservation efforts

REPORTS/BROCHURES

The 2015 CCR (Consumer Confidence Report) was offered to District consumers in three formats. On-line on our District website (printable PDF), Email or a printed copy for customers who requested them. 12,338 postcards and 18,500 water bill messages outlining methods of obtaining the CCR were sent to District customers, businesses and multi-family dwellings within Highline Water District’s service area. Sending postcards and billing messages in lieu of the actual CCR, saved the District printing and postage costs. The CCR may be found on the following link:

http://www.highlinewater.org/media/50380/2015.-ccrpdf

The District prepared two semi-annual newsletters (The Waterline) emphasizing conservation, rates and our Capital Improvement Program

STATE LEGISLATORS/LEGISLATION GOALS

To remain aware of and involved in State legislative issues that pertain to Water Districts, Commissioners and the General Manager regularly attend WASWD meetings.
CUSTOMER SERVICE GOALS

PROVIDE EXCELLENT CUSTOMER SERVICE - The District received approximately 25,000 calls in 2016

BE ACCURATE AND CONSISTENT WHEN PROVIDING CUSTOMERS WITH INFORMATION

- Newsletter, Web Page, Door Tags, Message(s) on Customer Billings

<table>
<thead>
<tr>
<th>Bills Sent</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular bills</td>
<td>112,400</td>
</tr>
<tr>
<td>% of bills sent electronically</td>
<td>9%</td>
</tr>
<tr>
<td>Final bills</td>
<td>1,535</td>
</tr>
<tr>
<td>Tenant accounts</td>
<td>1,580</td>
</tr>
</tbody>
</table>

ADMINISTRATION GOALS

ENSURE COMPLIANCE WITH GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB) AND THE WASHINGTON STATE AUDITOR

- Communicate the District’s Ethics policies to staff and Board annually
- Continue to provide an ethical work environment
- Provided accurate quarterly and year-end financial reports to the Board in a timely manner
- The District received another clean Audit for 2015.
- Maintained GAAP procedures and maintain proper internal controls
- Economic Stability—Maintain rates < 1% of median household income

TRAINING AND SAFETY

HARD HAT AREA

In 2016, three District employees had minor on-the-job injuries, resulting in zero hours of time loss.

Highline ended the year with 96 days worked without an injury. The L&I experience factor was 0.6975 for 2016 and will be 0.8719 for 2017.

COMPLETED REQUIRED SAFETY TRAINING

- Annual Fit Tests of personal protective masks was completed. These masks are used for entry into potentially hazardous confined spaces.
- Annual Hearing Tests were performed on field personnel
- CPR/1st Aid
- Asbestos Pipe handling
- Fire Extinguisher training
- Heat Stress
- Armed Intruder Training
Water Production Goals

The annual goal for water production from the District’s four wells was 940,000 CCF. The actual production in 2016 was 856,846 CCF. The reason the goal was not achieved was due to the repair and reconstruction work at Tyee Well. Tyee Well has been offline for most of 2016 for repairs.
LEAK DETECTION AND WATER LOSS GOALS

- Keep unaccounted water usage below 10% (reference WSDOH Water Use Efficiency Requirements)
  Unaccounted for water was 9.54% this year.
- Continue monitoring for unmetered water connections/uses—No unmetered connections were found in 2016
- Repaired 19 detected leaks discovered during the leak detection process
- Performed annual leak detection on 100 miles of main line and services (98 mile annual goal) Leak detection was not done in summer months.

Non-Revenue Water

A.W.W.A. GOAL IS < 10%

Breaks, Leaks and Water Loss

On average, the District experiences 9-10 water main breaks per year. There were twelve breaks in 2016. Typically, breaks are the result of numerous causes which may include ground settlement, tree roots, or a contractor working in the area. These breaks cost the District lost revenue and time.

In an effort to avoid unexpected problems before they occur, District crews leak detected approximately 100 miles of water main to look for leaks in the system. As a result of these efforts, they found and fixed leaks in two mains, 10 services and 7 hydrants before they became bigger problems. Fixing these combined leaks saved an approximated 188 gallons per minute, potentially saving millions of gallons of water from being wasted over time.

As an example of how fast this adds up:

1 gallon per minute leak = 525,000 gallons per year
2016 Budget Recap
(Unaudited)

2016 Sources of Funds

<table>
<thead>
<tr>
<th></th>
<th>Budget</th>
<th>Actual</th>
<th>% of Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rates</td>
<td>$15,220,529</td>
<td>$15,748,785</td>
<td>103.5%</td>
</tr>
<tr>
<td>Other Revenues</td>
<td>$866,615</td>
<td>$1,056,604</td>
<td>121.9%</td>
</tr>
<tr>
<td>General Facility Charges</td>
<td>$350,000</td>
<td>$1,207,703</td>
<td>345.1%</td>
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<tr>
<td>Other Funding Sources</td>
<td>$326,615</td>
<td>$342,110</td>
<td>104.7%</td>
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<tr>
<td>Reserve Accounts</td>
<td>$2,670,017</td>
<td>$413,088</td>
<td>15.5%</td>
</tr>
<tr>
<td>Total Sources of Funds</td>
<td>$19,433,776</td>
<td>$18,768,290</td>
<td>96.6%</td>
</tr>
</tbody>
</table>

![Graph showing sources of funds]

2016 Uses of Funds

<table>
<thead>
<tr>
<th></th>
<th>Budget</th>
<th>Actual</th>
<th>% of Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation &amp; Maintenance</td>
<td>$5,881,733</td>
<td>$5,507,359</td>
<td>93.6%</td>
</tr>
<tr>
<td>Water Supply</td>
<td>$4,123,857</td>
<td>$4,515,044</td>
<td>109.5%</td>
</tr>
<tr>
<td>Debt Service</td>
<td>$1,233,865</td>
<td>$1,229,374</td>
<td>99.6%</td>
</tr>
<tr>
<td>Capital Projects</td>
<td>$6,218,650</td>
<td>$6,110,085</td>
<td>98.3%</td>
</tr>
<tr>
<td>Meters/Hydrants/Services</td>
<td>$1,000,000</td>
<td>$402,461</td>
<td>40.2%</td>
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<td>Capital Asset Purchases</td>
<td>$188,231</td>
<td>$194,719</td>
<td>103.4%</td>
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<tr>
<td>B&amp;O Tax</td>
<td>$787,440</td>
<td>$809,248</td>
<td>102.8%</td>
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<tr>
<td>Total Uses of Funds</td>
<td>$19,433,776</td>
<td>$18,768,290</td>
<td>96.6%</td>
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</table>

![Graph showing uses of funds]
Board Approved 2017 Budget

2017 Sources of Funds

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Rates</td>
<td>$16,007,463</td>
<td>86.07%</td>
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<tr>
<td>Other Revenues</td>
<td>$1,120,978</td>
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<tr>
<td>General Facility Charges</td>
<td>$350,000</td>
<td>1.88%</td>
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<td>Other Funding Sources</td>
<td>$701,250</td>
<td>3.77%</td>
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<tr>
<td>Reserve Accounts</td>
<td>$419,478</td>
<td>2.26%</td>
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<tr>
<td><strong>TOTAL SOURCES OF FUNDS</strong></td>
<td><strong>$18,599,169</strong></td>
<td><strong>100.00%</strong></td>
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2017 Uses of Funds

<table>
<thead>
<tr>
<th>Use</th>
<th>Amount</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Operation &amp; Maintenance</td>
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<td>34.63%</td>
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<tr>
<td>Water Supply</td>
<td>$4,361,092</td>
<td>23.45%</td>
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<tr>
<td>Debt Service</td>
<td>$1,091,532</td>
<td>5.87%</td>
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<tr>
<td>Capital Projects</td>
<td>$4,243,665</td>
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<tr>
<td>Meters/Hydrants/Services</td>
<td>$1,375,000</td>
<td>7.39%</td>
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<td>Capital Asset Purchases</td>
<td>$239,363</td>
<td>1.29%</td>
</tr>
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<td>B&amp;O Tax</td>
<td>$847,500</td>
<td>4.56%</td>
</tr>
<tr>
<td><strong>TOTAL USES OF FUNDS</strong></td>
<td><strong>$18,599,169</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>
WATER QUALITY GOALS

PROVIDE HIGH QUALITY WATER

Comply with DOH WAC 246-290 monitoring requirements
- Maintain Cross-Connection Control Program per District Standards
- Maintain fluoride concentration in accordance with regulatory agencies recommendations
- Maintain pH concentration between 7.4 and 8.0 mg/L in distribution system
- Maintain Wellhead Protection Plan

RESPONSIVE TO CUSTOMER NEEDS

- Address water quality inquiries in a professional and thorough manner
- Respond within one hour to water quality complaints

TANK CLEANING /DISINFECTION

- Clean/disinfect each of the District’s nine (9) tanks on a 5-year schedule

MAIN FLUSHING

- Flushed 53 miles in 2016. The goal is to flush all distribution main lines every five years. (59 miles annually)
- Flush approximately 429 dead-end mains annually
- Maintain chlorine residual in the distribution system between 0.2 mg/L and 1.6 mg/L

TREATMENT PLANT OPERATORS

- Remove a minimum of 90% iron and manganese and manage tank water levels to maximize water turnover
- Maintain pH, chlorine and fluoride levels as mentioned in water quality goals

WATER QUALITY RECAP

Highline Water District continued to provide high quality water that meets applicable state and federal standards for safe drinking water in 2016.

This past year, District staff added three new coliform sampling locations for better pressure zone representation. The District experienced no positive coliform samples or water quality violations in 2016.

Additionally, lead and copper monitoring was conducted with the results showing the 90th percentile of 0.002 mg/L for lead and 0.03 mg/L for copper. These results are well below the EPA action levels of 15 ppb for lead and 1.3 mg/L for copper. The results of the home monitoring for lead and copper were provided to the participants.

Customer concerns regarding water quality remained a priority for our staff. This past year, we responded to 46 water quality inquiries. Of this total, 7 of the calls were about taste, 9 odor, 14 color, 2 staining, and 14 miscellaneous. Each of these inquiries prompted a site visit and evaluation by District staff where our customers were informed of our findings or any remedial action to be taken to alleviate their concerns.
OPERATIONAL and PREVENTATIVE MAINTENANCE GOALS

HYDRANTS
- Coordinated hydrant numbers with Normandy Park Fire District 2.
- Continued aggressive policy of policing or monitoring hydrant use by third parties
- Cleaned and painted 20% of hydrants each summer (312 completed of 600 annual goal)
- Replaced four fire hydrants, relocated 6 and repaired 33.

VALVES
- Operate/maintain approximately 1,200 smaller diameter valves each year (5yr cycle) 1,168 completed
- Annually operate/maintain approximately 189 larger diameter valves (> 12") (172 completed)
- Annually operate/maintain approximately 316 “hard to find” valves (290 completed)
- 17 Air & Vac’s were repaired after they were found in need of repair in the 2015 inspections. 23 are still on the low priority list to be completed as time permits in 2017.

METERS
- Maintain Radio Read System – Replace batteries and defective MXU’s as needed (780 replaced)
- Tested accuracy of three to eight inch meters annually
- Replaced 30 (1-1/2” and larger) meters
- Inspected 6,838 meters and boxes for location and accessibility (6,000 annual goal)
- Spot checked 100 older 5/8” and 3/4” meters for accuracy

TREATMENT PLANT AND PUMP STATIONS
- Produced 856,846 ccf of water in 2016 from District sources
- Routinely checked for vandalism and operational problems
- Continued development of proactive preventive maintenance schedule.

MAINS/SERVICES
HWD crews completed three small water main replacement projects:

<table>
<thead>
<tr>
<th>Location</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>252nd &amp; 30th Ave S</td>
<td>262’ 4” AC</td>
<td>259’ 8” DI</td>
</tr>
<tr>
<td>Crossing 32nd Ave S at S 190th St</td>
<td>70’ AC</td>
<td>55’ 8” DI &amp; 12’ 4” DI</td>
</tr>
<tr>
<td>Tyee Well Main relocation</td>
<td></td>
<td>Relocated 70’ 12” DI main</td>
</tr>
<tr>
<td>Bartell’s Fire Vault on S 216th St</td>
<td></td>
<td>Relocated 45’ 6” DI Main</td>
</tr>
<tr>
<td>Des Moines Gateway Project on S 216th St</td>
<td></td>
<td>Relocated Hydrants and Services</td>
</tr>
</tbody>
</table>

- Utilized Asset Management Program to identify aging infrastructure/appurtenances for replacement
- Identified opportunities to partner with cities for public works projects
- Replaced 36 deficient services
- Checked 218 of 953 District easements for encroachments (5yr-cycle)
OPERATIONAL and PREVENTATIVE MAINTENANCE (CONT.)

- Checked all PRV Stations monthly and clean annually
- Rebuilt PRV stations per manufacturer’s recommendations (based on installation date)

<table>
<thead>
<tr>
<th>Station No.</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRV-6</td>
<td>17400 6th Ave SW</td>
</tr>
<tr>
<td>PRV-10</td>
<td>19603 Marine View Dr</td>
</tr>
<tr>
<td>PRV-23</td>
<td>27235 51st Ave S</td>
</tr>
<tr>
<td>PRV-32</td>
<td>17400 6th Ave SW</td>
</tr>
</tbody>
</table>

PRV STATIONS REBUILT IN 2016

- Replaced Vault Lid to Crestview Reservoir (in Private Easement)
- Rebuilt seven of thirty four (34) Control Valves per year on a 5-year schedule

UNEXPECTED SHUTDOWNS

- Restored service within an average of eight hours or less.
- There were a total of 12 unexpected shutdowns in 2016. Several were caused by contractors working in the area and the others were from natural or unknown causes. The goal is to have repairs made the same day and repairs made in 8 hours or less.
- This year we used an automates dialing system to let customers know what happened and when the water may be expected to be returned to normal service.
- We placed notices of unexpected shutdowns on our website to alert customers when there was an outage.
The District had 3,281 line location requests in 2016, including 823 field locates. The rest did not require a site visit.

It is the law that requests for locates are made if you are going to dig deeper than twelve inches.

43% of the requests for locates that we received were for private property owners that did not require a site visit.

What do all those colors mean?

<table>
<thead>
<tr>
<th>Locate Type</th>
<th>Count</th>
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</thead>
<tbody>
<tr>
<td>Emergency</td>
<td>7</td>
</tr>
<tr>
<td>Marked</td>
<td>823</td>
</tr>
<tr>
<td>Out of District</td>
<td>333</td>
</tr>
<tr>
<td>Private Property</td>
<td>850</td>
</tr>
<tr>
<td>No Highline Water</td>
<td>446</td>
</tr>
<tr>
<td>Other</td>
<td>822</td>
</tr>
<tr>
<td>Mis Marked</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Locates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>2161</td>
</tr>
<tr>
<td>2013</td>
<td>2745</td>
</tr>
<tr>
<td>2014</td>
<td>2963</td>
</tr>
<tr>
<td>2015</td>
<td>2948</td>
</tr>
<tr>
<td>2016</td>
<td>3281</td>
</tr>
</tbody>
</table>

CALL 811
OTHER GOALS

COMPUTER SYSTEM
- Enhanced IT security and replaced six computers.

GIS/GPS/MAPPING
- Transitioned to newer version of work order management system.
- Updated the hydraulics model with new mains and revisions since 2014.

OFFICE
- Security camera upgrades were done.

PARTS INVENTORY
- After annual inventory completed there was only a 1.28% loss of inventory value.

VEHICLES/EQUIPMENT
- Purchased a new Mini Excavator
- Case Backhoe purchased in 1990 (#14) and a Ford F20 pickup purchased in 2006 (#69) were declared surplus and were sold.

EMERGENCY MANAGEMENT AND MITIGATION EFFORTS
- Upgraded Access Control Software (Key fobs)
- Installed new security cameras at Pump Station #7 and at the office.

FIRE HYDRANT SECURITY
- Continue to monitor hydrants to ensure they are being used properly and with District authorization
- Paid $200 reward for information about one incident of theft of water, and recovered fine from guilty party.

TRAINING/EDUCATION/EXERCISES
- Conduct at least one tabletop exercise and or at least one emergency drill
- Send key staff to emergency response training as needed

ALL HAZARDS/SAFETY COMMITTEE GOALS
- Continue to update and review Emergency management Plan and Safety manual
- Continue monthly all hazard/safety meetings
- Continue to educate staff about new or updated safety issues
- Aim for minimal L&I incidents and no time loss due to on-the-job injuries
Dan Sleeth began his career in 1986 when he was just 18 years old. He worked his way up from meter reader to Preventive Maintenance Lead. Dan’s team works on keeping the pressure reducing stations regulated, rebuilds the large meters, does main flushing and leak detection, and repairs fire hydrants that are broken or leaking. That is just a few of the many things he does.

He surprised all of us by announcing at the end of the year that he would be taking a higher level position at another water district.

Scott Davis began his career in the fall on 1986. He has worked in the field and in the office as a drafter and traffic plan designer. He also runs our hydraulics modeling program to simulate what flow is available during a fire situation. Currently Scott works as the line locator and as a field inspector for new developer extension projects. Occasionally, he still gets to work in the office to design some water main replacement projects that the District is doing.

Polly Daigle is our Developer Coordinator. She helps with new construction projects, keeping all the paperwork in great shape. When she is not watching over the development projects Polly is also a customer service representative. She does her best to help customers with their water bills and other questions they have.

Safety is always on her mind since she plans the safety classes and safety topics for the safety meetings.

If there is something that needs a celebration, she can be counted on to arrange everything.
Greg Wilson, Customer Service Supervisor was chosen as Employee of the Year for 2016. He was selected for his skill at managing the rollout of the new Point and Pay system and negotiating some difficult contracts.

He began his career at Highline in 1997 starting as a Meter Technician and worked his way up to his current position. He enjoys working with his customer service team to bring the new and efficient technologies to our customers. When he is not working, Greg enjoys getting out and doing some fly fishing.

Employee of Year

Commissioner Vince Koester received a 15 year service award at the January 6, 2016 District Board Meeting for his consecutive years on the Board, however, he also served as commissioner for a short stint prior to that.

Vince served as Board President in 2016. While not busy doing District business, Mr. Koester owns and operates a landscaping business. He is also a great cook and caterer, donating his time for worthy charitable events in the area. Mr. Koester’s current commissioner term ends in 2021.

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23828 30th Ave. S.
Kent, WA 98032

PHONE: 206-824-0375
FAX: 206-824-0806
WWW.highlinewater.org

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everett@highlinewater.org (206) 592-8902
Engineering/Operations Manager (206) 592-8904
Administrative Manager (206) 592-8906
Customer Service/Billing Inquiries (206) 824-0375
Developer Extensions (206) 592-8924
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