

# 2011 ANNUAL REPORT

Highline Water District



Highline Water District was formed following a special election on August 12, 1946. Since its initial formation, several annexations, mergers and withdrawals occurred resulting in the current boundary.

The District operates as a Special Purpose District governed by a five member Board of Commissioners elected by the citizens of the District.

The District is located south of Seattle, Washington along the shores of Puget Sound and serves portions of the cities of Tukwila, Kent, Federal Way, Normandy Park, Des Moines, Burien, SeaTac, and unincorporated King County.

Our fully metered system serves 18,144 connections and provides water to a population of approximately 68,700 people. The District supplies an average of 5.9 million gallons of water per day.

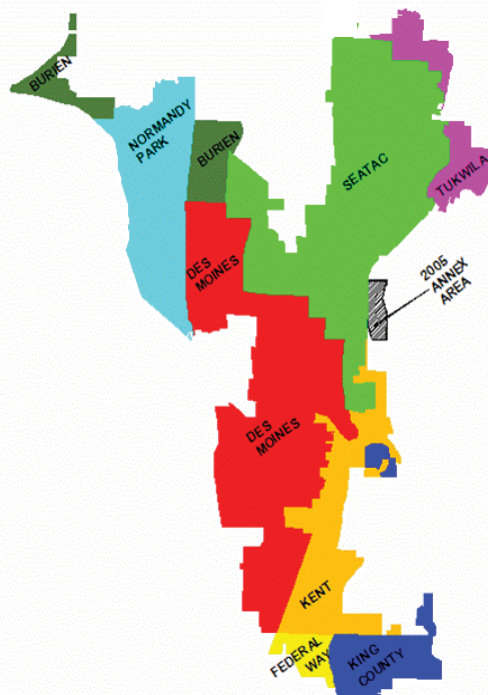
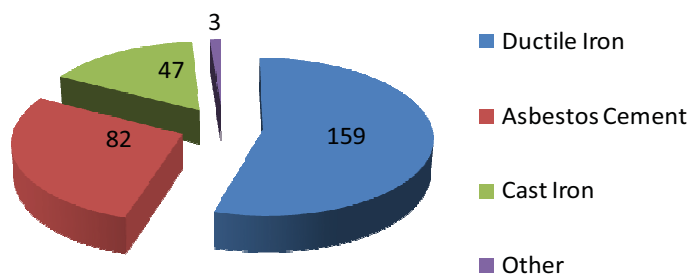
Approximately 70% of the District's water is provided through three meters from Seattle Public Utilities. 30% of the District's source is from three groundwater wells and two treatment plants with a third under construction.

The District water system includes nine water storage reservoirs, six pump stations, 29 pressure-reducing stations, 11 pressure zones and approximately 291 miles of transmission and distribution mains. The mains range in size from 2" to 36" in diameter and are composed of various materials. Nine interties with other water purveyors can allow for an exchange of water in emergency situations.

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Miles Of Water Main by Type



## Capital Improvement Program

### Completed Projects

#### 10-3 HWD Office Roof Repairs and Office Remodel

The project included replacing the existing roof and HVAC units. In addition, a new 600 SF storage room replaced the existing interior courtyard. The total project cost was \$558,507 and completed under budget.



*Fountain in new location*

#### 10-2 360 Zone PRV Stations and Orillia Road Water Main Replacements

The District installed two PRV Stations and 1,700LF of 18" DI along Orillia Rd. between S. 200th St. and S. 204th St. through a cost sharing agreement with Segale Properties. The project was accepted by the Board of Commissioners as complete on July 20, 2011. Titan Earthwork constructed the improvements for a District cost of \$431,377.

#### SW11-1 S 182nd St Water Main Replacement Project.

The District replaced 1,300 LF of AC main along S. 182nd St. at 51st Ave S. with new 8" ductile iron water main. Buno Construction completed the work in June 2012 for a project cost of \$246,389. The work preceded a City of Seatac storm drain and overlay project.

### Ongoing Projects

#### 06-1 Southcenter Parkway Extension

The first portion of the project will be the improvement/creation of Southcenter Parkway South (replacing Frager Road) under a Public Works Contract by the City of Tukwila. The improvements will extend the current Parkway from S. 178th St. and run south to approximately S. 200th St. Approximately 10,900 LF of main will be installed as part of the project. The estimated project cost is \$1.8 million and is scheduled to be complete in the Spring of 2012.



*Valves Ready to be Installed*

#### 07-2 McMicken Well & Treatment Plant

The project was awarded to McClure & Sons in May 2011 and is expected to be complete in the spring of 2012. The well and treatment plant will produce 500 g.p.m. to supplement source water to the 560 pressure zone.





## Developer Extensions

Twelve developer extension projects valued at \$1,447,368 were constructed and accepted as complete by the Board of Commissioners in 2011.

These projects added 2.5 miles of new water main to the distribution system, along with 86 services, 34 hydrants and 82 new valves.

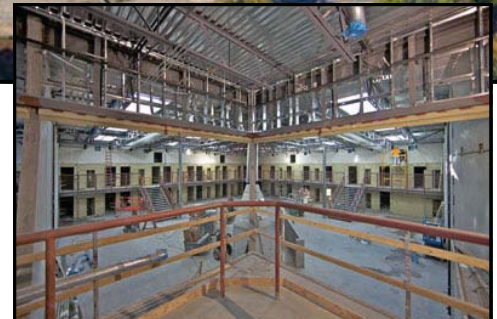
General Facilities charges collected for the year were \$123,042 and Local Facilities were \$5,525. The total connection charges for 2011 were \$128,567.

Auto Zone Vault



2011 COMPLETED PROJECT NAME	PROJECT TYPE	PROJECT LOCATION
Cornerstone Church	Church	21650 24th Ave S Des Moines
Enterprise Car Rental	Car Rental	19031 Intl Blvd Seatac
Goodpaster-Finch	3 Single Family Residences	1st Ave S. & S 171st to SW 173rd St.
Kingdom Hall	Church	S 216th St & 24th Ave S Des Moines
Landmarque	68 SFR & 1 Com- mercial Bldg	S 263rd St & PHS Des Moines
McMicken Heights Elementary	New 66,500 SF school	37 <sup>th</sup> & S 168 <sup>th</sup> St Seatac
O Reilly Auto Parts	9,250 SF Retail Store	S 211th & Intl Blvd Seatac
Riverview Community Church	Church	4135 S 216th St Kent
Scocollo Polygon "Pod A"	70 new SFR Con- dos	204 <sup>th</sup> & Orillia Rd Seatac
SCORE Phase 1 & 2 & On Site	150,000 SF Correc- tional Facility	208 <sup>th</sup> & 18 <sup>th</sup> Ave S Des Moines
View Point Apts	Apt Complex	21424 Intl Blvd Seatac

South Correctional Entity  
Multijurisdictional Misdemeanant Jail



Inside new 822 bed correctional facility

Ongoing - Projects	Location
<b>Angle Lake Estates</b> 10 SF Residences	S 188th St & 41st Pl Seatac
<b>Auto Zone</b> Auto Parts Store	21050 Intl Blvd Seatac
<b>King County Bowlake Transfer Station</b> New regional sanitation facility	S 187th & Orillia Rd Tukwila
<b>Hampton Inn</b> 3 Story Hotel	S 188th & 28th Ave S Seatac
<b>Patterson Place</b> Four 3-Story Multi Use Facilities	37th Ave S & S 188th St Seatac
<b>Port of Seattle S 160th St.</b> Move Existing Main	S 160th St & Intl Blvd Seatac
<b>Port of Seattle Bus Mainte- nance Facility</b>	26xx S 194th St, Seatac
<b>Segale 101 Bldg</b> New Office Facility	180xx S Center Park- way Tukwila
<b>Star Lake East</b> 30 New SF Residences	46th Ave S & S 280th St Auburn

## All Hazards Committee

The Job Hazards Analysis Manual was updated adding new sections for sampling in the treatment plants, in the field and meter reading. The manual is an important tool for staff to evaluate potential job hazards prior to starting a task or project.

### Scada Exercise

The SCADA operators were given an impromptu drill to operate the system manually without the use of the SCADA system. They handled the situation well and learned some new lessons.

**Hazard Evaluation Report**  
Sampling – In Treatment Plants

Task	Description
10100	Unregulated Contaminant Rule
10104	Wall Head Protection Plan
10109	Water Quality Sampling
10111	Water Quality Sampling - SSC
10112	Water Quality Sampling - TDC
10113	Water Quality Sampling - VOC
10116	Water Quality Sampling - Radionuclides
10117	DOH Water Sampling

Type of hazards:  
Chemical.

Severity of Injury:  
Minor to Major.

Risk Priority:  
Low-Medium.

Probability of Accident Occurring:  
Occasional.

Body Areas:  
Eyes & Face.

PPE:  
Steel Toed Boots, face and eye protection.

Site Precautions:  
Faucet for flushing, eye wash.

Reviewed by: *[Signature]*  
Approved by: *[Signature]*  
Date: 3-24-11

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**Hazard Evaluation Report**  
Sampling – In Field

Task	Description
10101	Lead and Copper Rule
10102	Disinfection By Product Rule
10200	Repair/Maintain Sample Stand
10300	Sampling New Construction
10314	Water Quality Sampling - TCR

Type of hazards:  
Impact, penetration, crush or pinch, dust, electrical, ergonomic and environmental.

Severity of Injury:  
Fatal or permanent disability.

Risk Priority:  
Medium.

Probability of Accident Occurring:  
Occasional.

Body Areas:  
Whole Body.

PPE:  
Hard hat, Steel toed boots, safety vest.

Site Precautions:  
Traffic Cones

Reviewed by: *[Signature]*  
Approved by: *[Signature]*  
Date: 3-24-11

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## TRAINING & SAFETY



L & I Injuries		
Year	No. Incidents	No. days Time Loss
2007	3	7
2008	2	52
2009	1	1
2010	1	44
2011	3	78

The L&I experience factor was raised from .96 to 1.19 for 2012.

During 2011, the Safety Committee received training regarding the purpose and requirements of having a Safety Committee.

The District Safety Manual was updated in 2011. After that update Highline contracted with Evergreen Safety Council to review the manual and make recommendations for any additional changes. Several training sessions were held for those employees who needed certification updates or had never been through one of the required training courses. In-house training at tailgate safety and all-staff meetings continued throughout the year. All field staff were given a hearing test.

Emergency contact information was updated for both in-house and outside contact information for emergency aid agencies.

Highline Water District, as a wholesale supplier of Seattle Public Utilities, reviewed their Incident Coordination Procedures so that the two agencies can work in better coordination in the event of an emergency.

### Training Courses Provided in 2011

- Forklift Operator Training
- Confined Space
- Competent Person
- Flagger Certification
- Asbestos Pipe Handling
- Heat Stress

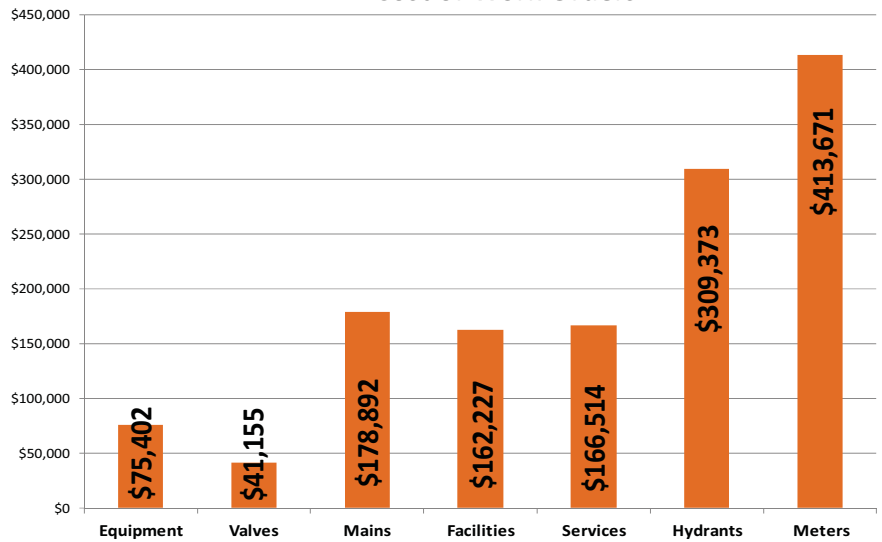
## Work Orders

There were 2,717 work orders generated in 2011. Of those, 90% (2,452) were completed, 34 are on-going and 59 were cancelled for various reasons. There are 139 new work orders yet to be completed.

Approximately six miles of main around the perimeter of the District are flushed on a monthly basis, and all dead end mains are flushed on an annual basis. In addition, High Velocity Flushing is done in certain areas to keep the best water quality possible.

In addition to flushing and repairs, over 104 miles of main were checked for possible leaks.

**Cost of Work Orders**

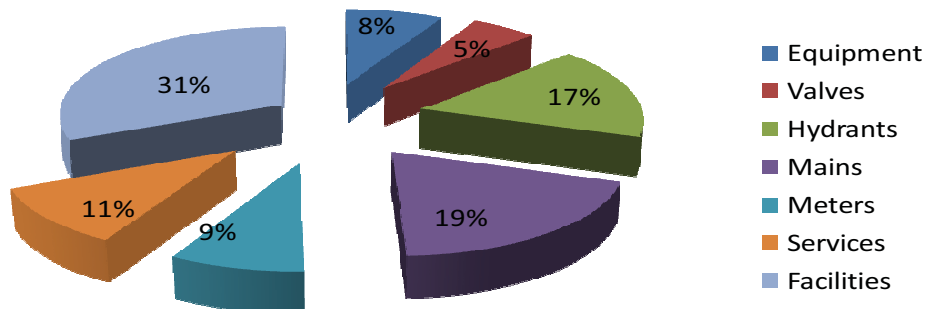


2011 Maintenance Report							
Facility	New	Repaired	Replaced	Inspected	Painted	Flushed	Leak Detection
Valves	1	8	0	2880			
Hydrants	-	222	55	715	702		
Meters	9	60	1156				
Services	4	84	97				
Mains	1	7	2			122 Miles	104 Miles
Dead ends						407	

Joshua Kessack worked for the District this summer helping the Operations/Field department with hydrant painting. Josh painted and inspected 702 hydrants in three months time. We are hoping that he will take a break from his studies at the University of Washington and come back next summer to work with us again.



**TOTAL MAINTENANCE**  
Percentage of Labor by Asset Type

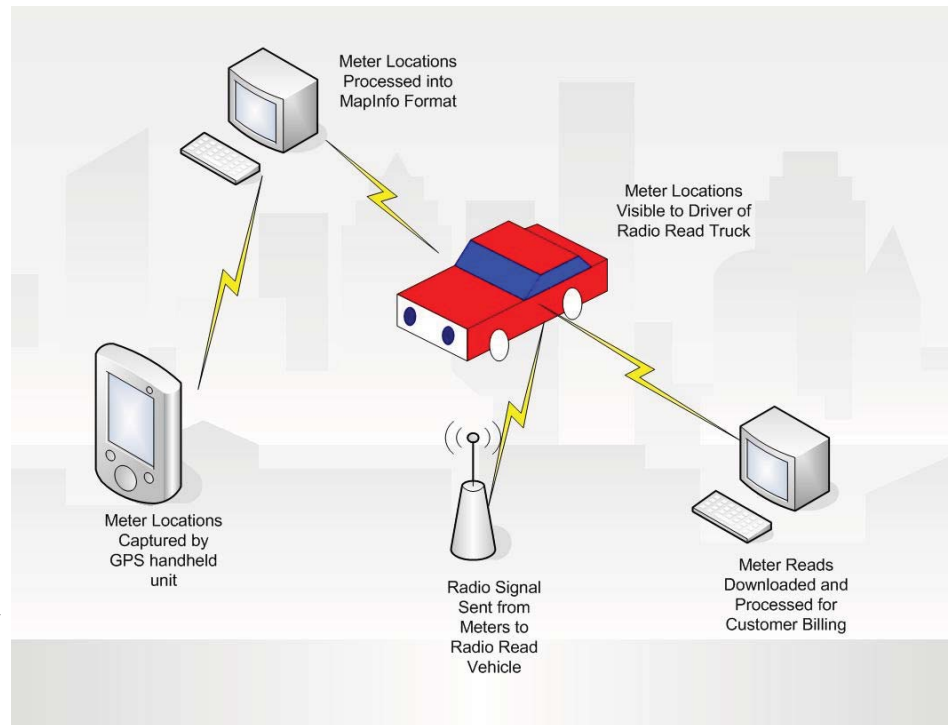


*Note: Labor Percentage calculated from the hours input on Lucy work orders*

## Asset Management

The location of over 2,500 meters was updated using our Trimble GPS unit. The positions of the meters were then uploaded to the asset management software and translated into a format that the Radio Read program could interpret. The meter locations were then exported into the Radio Read program so that field staff can see the meters physical location on their laptop computer as they drive through the District automatically collecting the meter readings using a radio signal. The meter readings are then downloaded to the office computers and bills are produced for the customers.

Hydrant and valve pressure zone data was populated in the Lucity asset management database. The pipe number that a hydrant is associated with was also added to the database. This is helpful to the field staff to identify the correct valve and avoid shutting off valves inadvertently interrupting service to the customers.



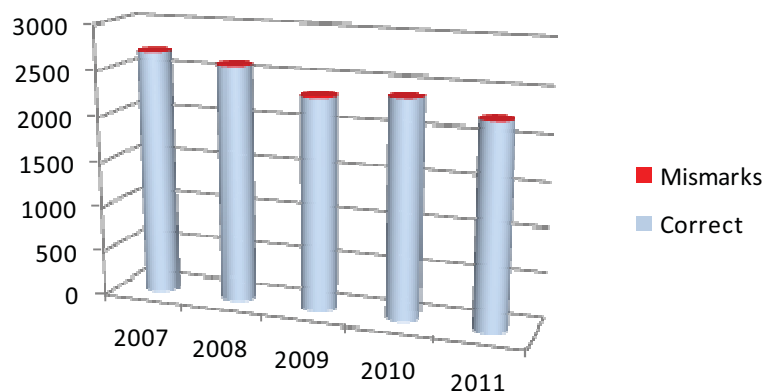
## Locates

In 2011 the District started recording the locate request number in our Work Order management system Lucity. Photos of the actual locate are attached to the Work Order for easy retrieval at a later date. The photos document the locate for any future disputes that may arise over the locate markings.

The District had a total of 2,209 line location requests. There were six mismarks in 2011 resulting in no significant damages to facilities or property..



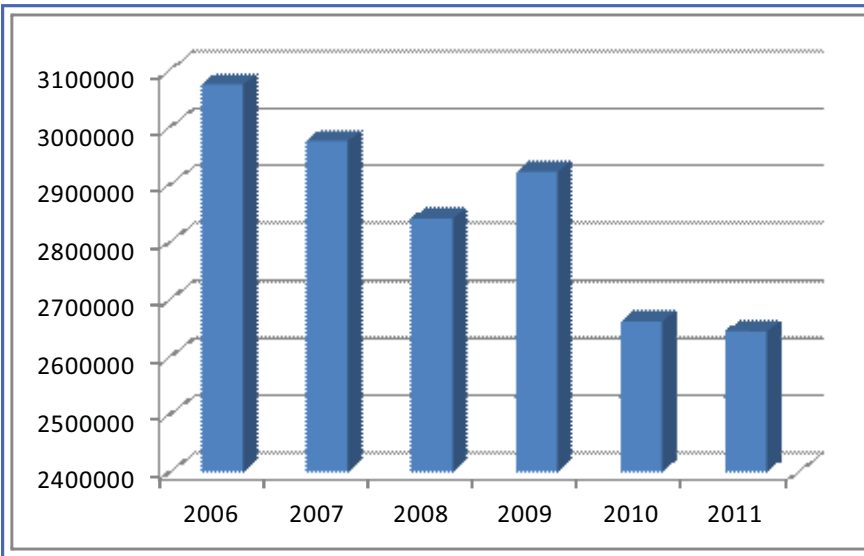
## Number of Locates vs Mismarks



**CALL 811  
BEFORE  
YOU DIG**



## Water Sales Data

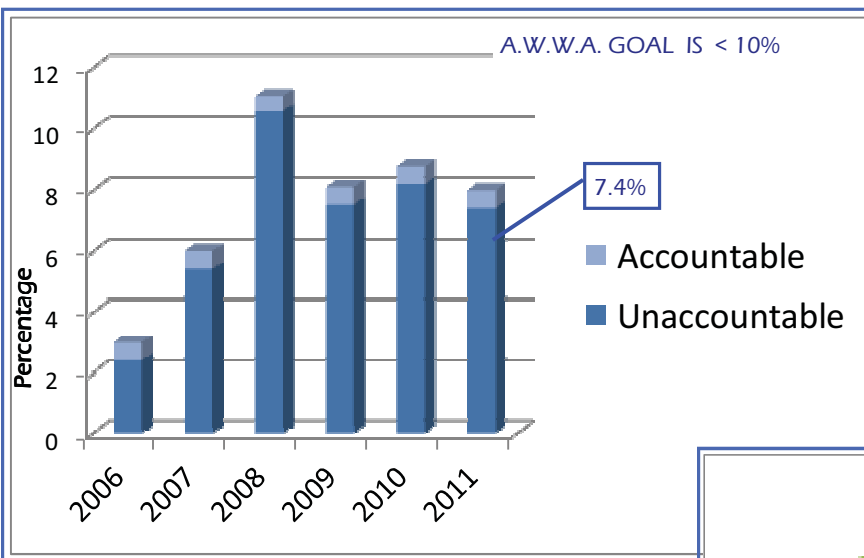


Water sales have been trending down for the last several years as the population continues to rise. This is in part due to conservation efforts and the bad economy. Consumption data is a very complex issue with many contributing factors including but not limited to weather, social pressures to conserve, and price.

Year	Number of Meters	Water Consumption Billed (CCF)
2006	17,905	3,074,431
2007	18,001	2,976,073
2008	18,050	2,840,910
2009	18,080	2,922,268
2010	18,116	2,661,812
2011	18,144	2,644,611



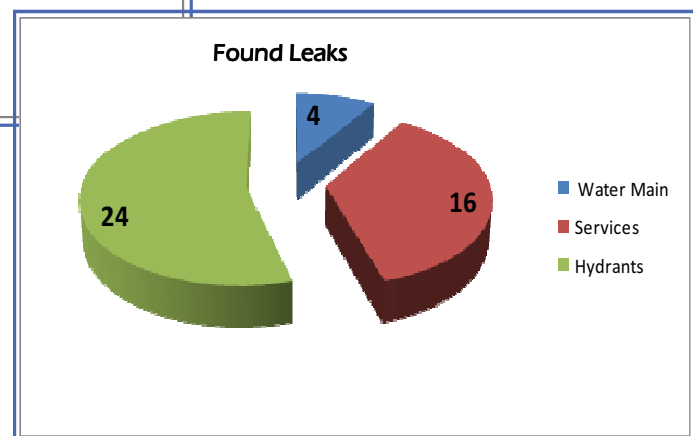
## Non-Revenue Water



## Where does the water go?

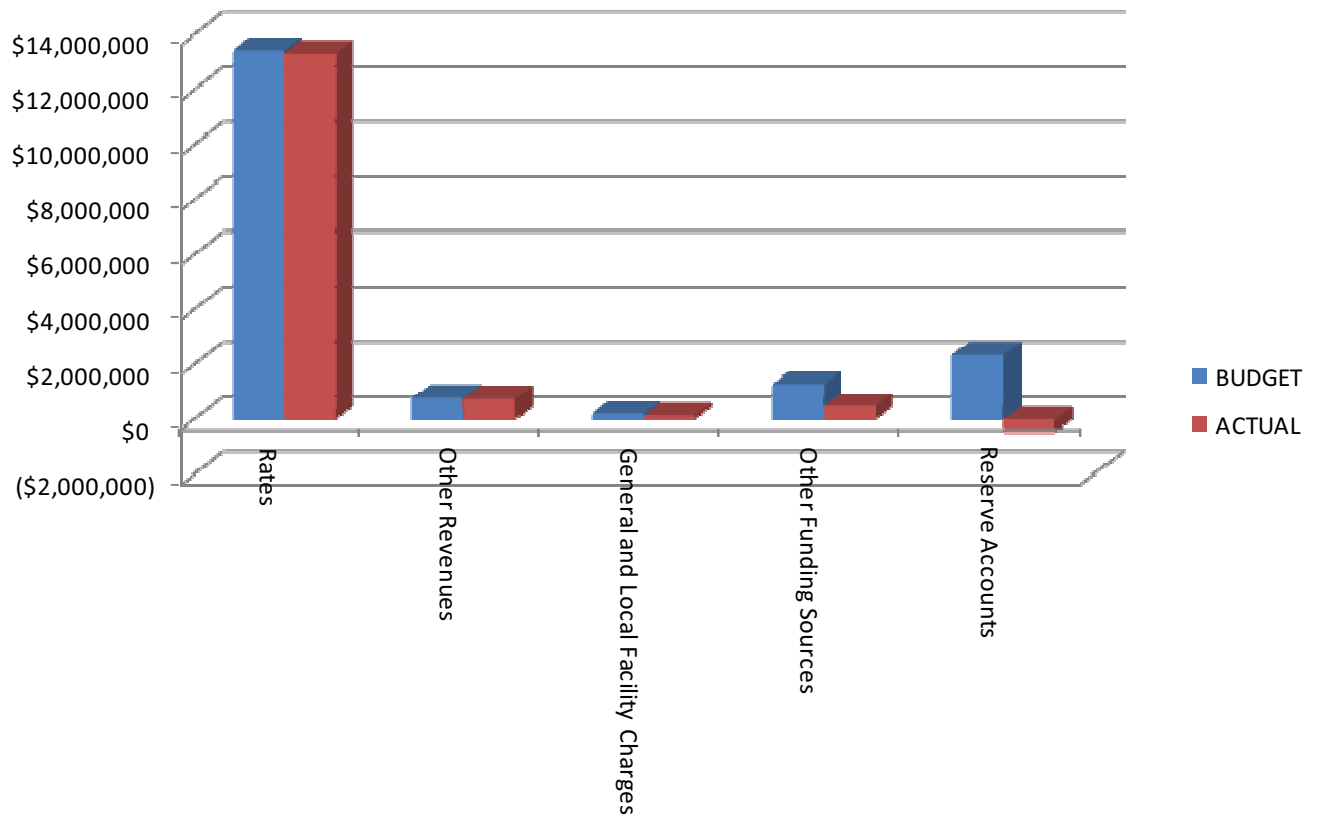
Highline Water has spent a lot of time and resources trying to answer that question. There are two types of Non-Revenue water. Accountable and Unaccountable. Accountable types include, known leaks and breaks, flushing and tank cleaning for example. Unaccounted for water may be attributed to meter discrepancies, fire department uses, unknown leaks, hydrants draining and outright theft.

This year alone District crews leak detected over 104 miles of water main to look for leaks in the system. As a result of these efforts, leaks on 4 mains, 16 services and 24 hydrants were found and fixed before they became bigger problems.



## 2011 Sources of Funds

(Unaudited Recap)

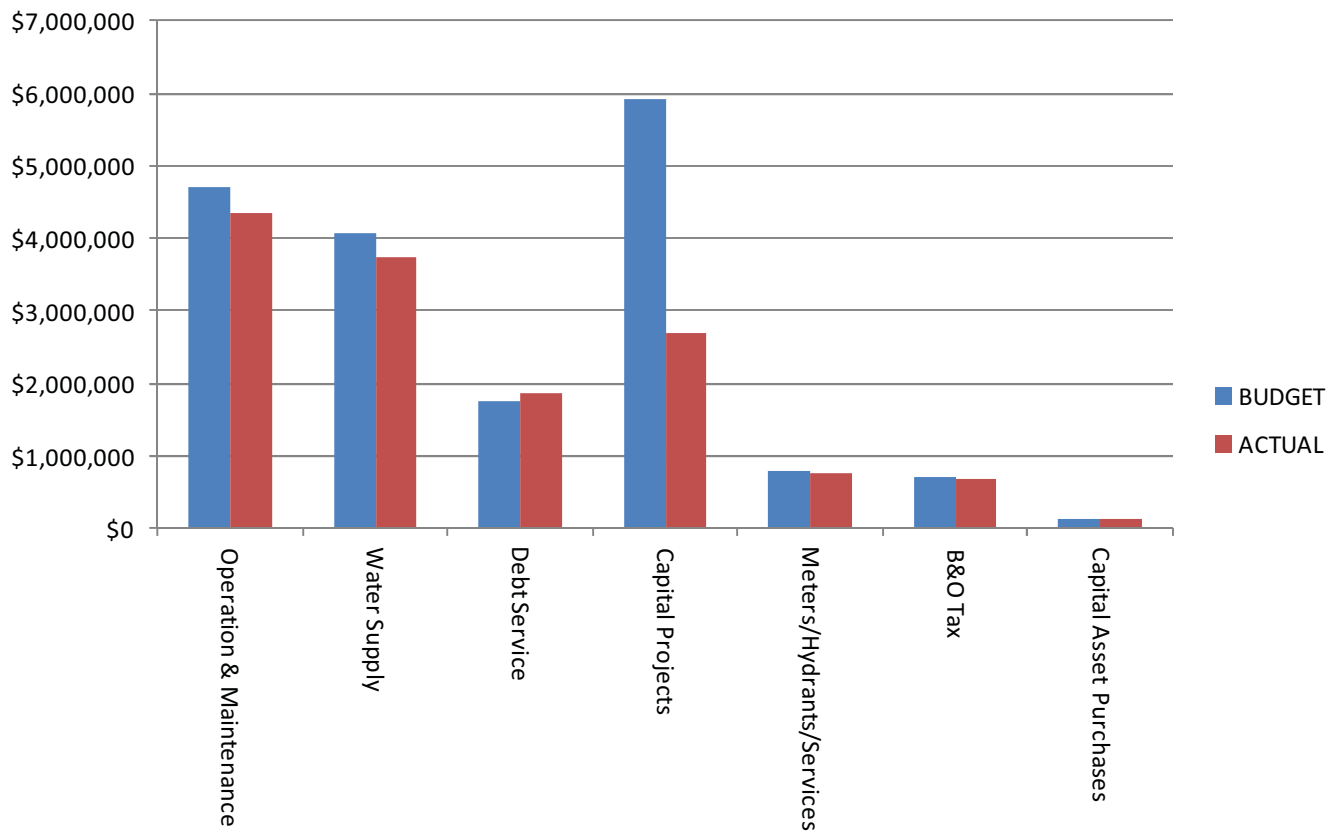


SOURCES OF FUNDS			
	BUDGET	ACTUAL	% OF TOTAL
Rates	\$13,432,571	\$13,320,536	93.65%
Other Revenues	\$790,081	\$755,283	5.31%
General and Local Facility Charges	\$200,000	\$128,567	0.90%
Other Funding Sources	\$1,273,363	\$485,990	3.42%
Reserve Accounts	\$2,345,616	(\$466,110)	-3.28%
<b>TOTAL SOURCES OF FUNDS</b>	<b>\$18,041,631</b>	<b>\$14,224,266</b>	<b>100.00%</b>



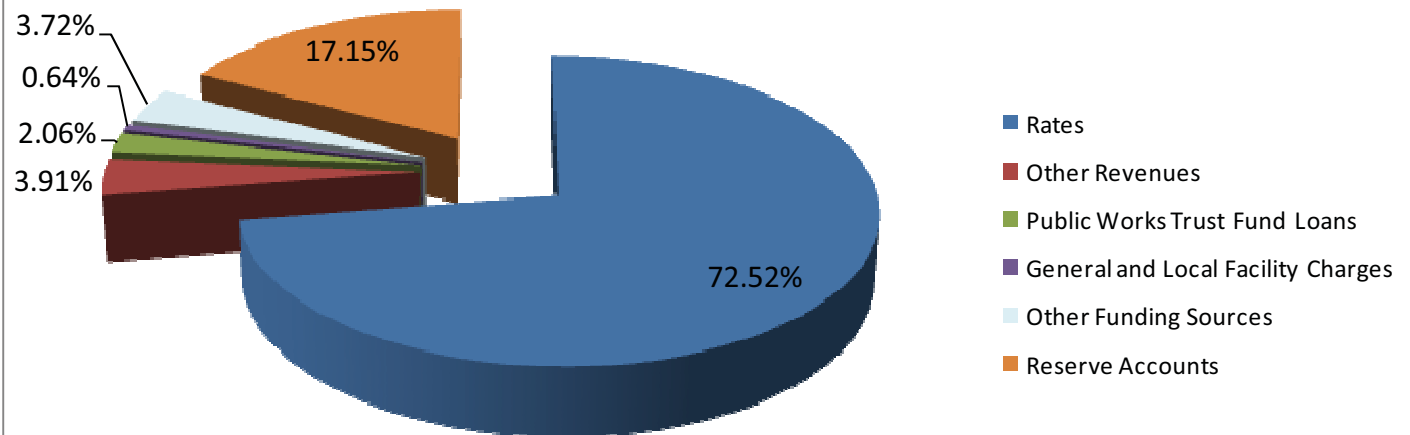
## 2011 Uses of Funds

(Unaudited Recap)



USES OF FUNDS			
	BUDGET	ACTUAL	% OF TOTAL
Operation & Maintenance	\$4,695,855	\$4,341,004	30.52%
Water Supply	\$4,064,815	\$3,752,472	26.38%
Debt Service	\$1,742,211	\$1,869,229	13.14%
Capital Projects	\$5,905,484	\$2,691,454	18.92%
Meters/Hydrants/Services	\$785,000	\$768,712	5.40%
B&O Tax	\$716,266	\$675,851	4.75%
Capital Asset Purchases	\$132,000	\$125,544	0.88%
<b>TOTAL USES OF FUNDS</b>	<b>\$18,041,631</b>	<b>\$14,224,266</b>	<b>100.00%</b>

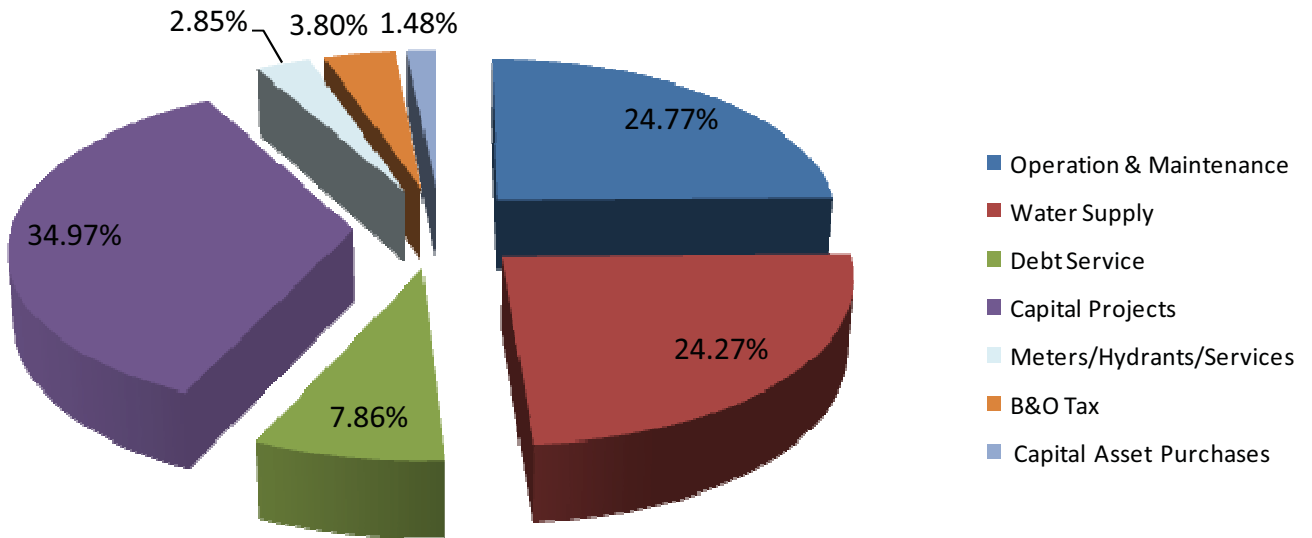
## 2012 Board Approved Budget Sources of Funds










SOURCES OF FUNDS			
	Rates	\$14,121,952	72.52%
	Other Revenues	\$760,653	3.91%
	Public Works Trust Fund Loans	\$401,513	2.06%
	General and Local Facility Charges	\$125,000	0.64%
	Other Funding Sources	\$723,908	3.72%
	Reserve Accounts	\$3,339,221	17.15%
	TOTAL SOURCES OF FUNDS	\$19,472,247	100.00%

## 2012 Board Approved Budget

### Uses of Funds



USES OF FUNDS			
	Operation & Maintenance	\$4,823,761	24.77%
	Water Supply	\$4,725,486	24.27%
	Debt Service	\$1,530,090	7.86%
	Capital Projects	\$6,809,665	34.97%
	Meters/Hydrants/Services	\$555,000	2.85%
	B&O Tax	\$739,165	3.80%
	Capital Asset Purchases	\$289,080	1.48%
	TOTAL USES OF FUNDS	\$19,472,247	100.00%



## Administration/Customer Service

- Successfully negotiated four year labor agreement with UA Local 32 field employees.
- Completed the installation of 1,156 radio read meters; all 18,144 meters are now radio read.
- We had another clean financial audit this year.
- Answered 29,000 Customer Service Calls
- Automated payment processing to allow Pay By Phone 24hours a day 7days a week was implemented.
- Set up new storage room in the center of the building after the fountain was removed.
- Successfully replaced accounting specialist position.



## Water Quality

Safe and reliable drinking water continues to be one of the most important services that the District provides. The District staff make every effort to respond quickly and positively to the customers that we serve.

Over 840 samples were taken to comply with the Total Coliform Rule, 8 samples were taken for the Disinfection/Disinfection By-product Stage 1 Rule and 12 monthly split-samples for Fluoride. Annual Nitrate testing was done for the wells and an update of the Wellhead Protection Program was completed during this first year of the 3 year compliance period.

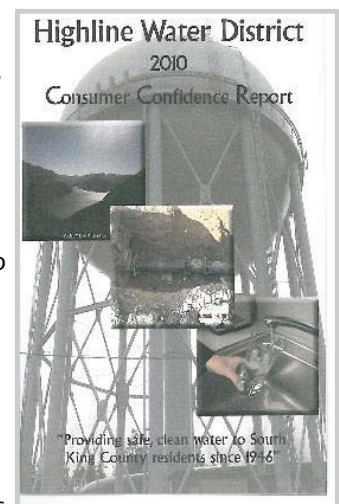
District staff responded to 51 water quality inquiries from customers in 2011. The breakdown is as follows: 13 odor, 4 taste, 13 color, 2 feel and 19 miscellaneous. Our goal is to contact the customer who has a quality concern within 1 hour to schedule a site visit and to evaluate their concern with remedial action undertaken if necessary.



*Tolt River Supply*

Preventative maintenance programs such as high velocity, perimeter and dead-end flushing continued to aid in providing safe water and decreased costs.

Consumer confidence and water use efficiency reports were provided to each customer early last summer. The report explains the results of the District's water quality monitoring and conservation efforts for the previous year.



Overall, the District continued to provide high quality drinking water that meets applicable State and Federal standards.

## Service Awards

Steve McReynolds was honored at a lunch in August to commend him for 30 years of service. Steve started at the District in 1981 as a meter reader. During his career, Steve has served in many capacities. For the last 10 years, Steve has been leading a major project to convert the water meters in the District from manual read to radio read. He and his team successfully completed the task this summer. He is currently leading the Meter Reading Department. Steve is one of the few employees who has an encyclopedic volume of knowledge about the District. He is a valued asset to the Highline Team.



Steve McReynolds 2011

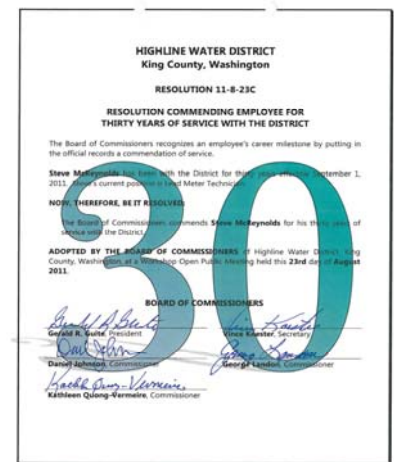


Steve McReynolds & Scott Lowe  
early 1990's

Gregg (Spanky) Williams, also a valued member of the meter reading staff for over 23 years retired this fall. We will miss his great enthusiasm.



Gregg Williams



### 25 Years

Dan Sleeth is the Preventative Maintenance Lead in charge of High Velocity Flushing, Leak Detection and hydrant maintenance among his many other duties.



### 25 Years

Scott Davis has worked many different positions during his 25 year career at the District. Currently he is our Field Locator and Construction Observer.



### 20 Years

Polly Daigle is currently an Admin. Assistant/ Developer Extension Coordinator. She continues to give excellent customer service to all.



### 5 Years

Carryn Frye, Customer Service/Billing  
Nick Palmer, Senior Utility Worker  
Howard Pom, Part Time Custodian

## Employee of Year



Congratulations to Nick Palmer who was chosen as Employee of the Year for 2011. He was chosen for his many positive qualities. Nick has a great personality and is well liked by all the other employees. He has received several compliments from customers throughout the year for a job well done. Nick is very good at keeping up with his reports and is very competent with using our work order system. He takes safety seriously and looks out for his fellow employees. Nick has matured into a good leader and has filled in as a lead numerous times this year.

In the field, Nick has become a very good operator and has talent when it comes to restoration.

Nick requests the opportunity to be assigned the most difficult tasks in order to advance his skills.

## Contact Information

**Highline Water District**  
**23828 30th Ave. S.**  
**Kent, WA 98032**

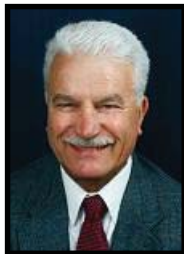
PHONE: 206-824-0375  
 FAX: 206-824-0806  
[WWW.highlinewater.org](http://WWW.highlinewater.org)

Matt Everett General Manager <a href="mailto:meverett@highlinewater.org">meverett@highlinewater.org</a>	(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
Water Quality	(206) 592-8920



## Board of Commissioners

2011 President



Jerry Guite



George Landon



Vince Koester



Kathleen Quong-Vermiere



Daniel Johnson

### MISSION STATEMENT

**"The Board of Commissioners and employees of Highline Water District take seriously our duties to deliver the highest quality water available at the most economical price. We pledge to continue our aggressive policy of maintaining and protecting your investment in District facilities and equipment"**