



**LAKE WHATCOM
WATER AND SEWER
DISTRICT**

**2015
ANNUAL BUDGET**



FY 2015 BUDGET
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FY 2015 Budget

Lake Whatcom Water & Sewer District
1220 Lakeway Drive
Bellingham, Washington
98229

Approved: December 10, 2014

Board of Commissioners:

Leslie McRoberts, President

Todd Citron, Secretary

Laura Weide, Commissioner

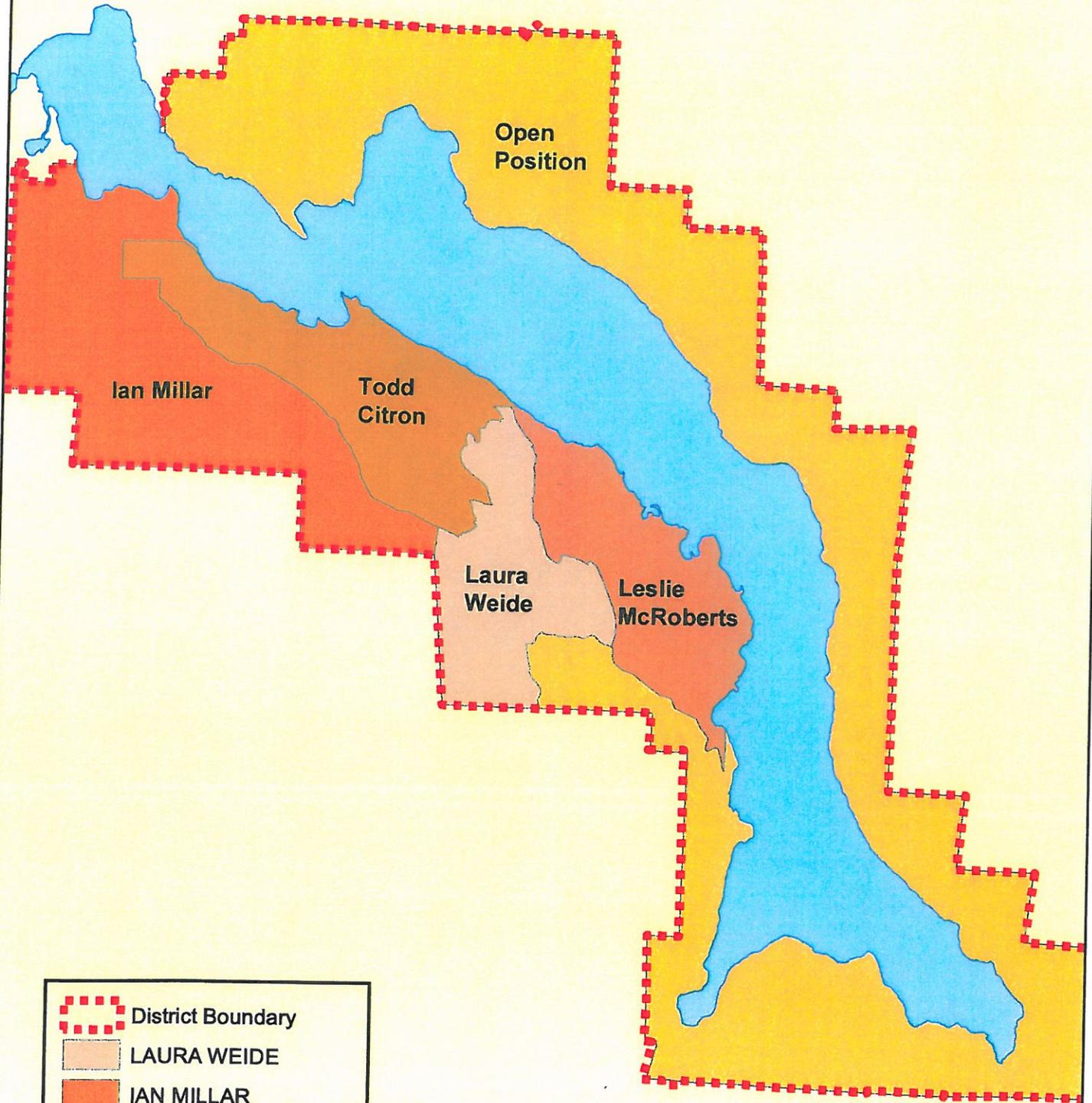
John Millar, Commissioner

General Manager
Patrick Sorensen

December 10, 2014



LAKE WHATCOM WATER & SEWER DISTRICT COMMISSIONER VOTING BOUNDARY



-  District Boundary
-  LAURA WEIDE
-  IAN MILLAR
-  OPEN POSITION
-  LESLIE MCROBERTS
-  TODD CITRON

December 10, 2014

Board of Commissioners
Lake Whatcom Water and Sewer District
1220 Lakeway Drive
Bellingham, WA 98229

Re: Proposed 2015 Budget

Dear Commissioners:

Attached is a copy of the proposed 2015 budget for your consideration and discussion. The following outlines the major accomplishments in 2014 and the proposed assumptions and goals for 2015.

Expenditure & Revenue Assumptions

As illustrated within the Operations section of the budget overall net expenditures are proposed to decrease by approximately 1% over last year's approved 2014 Budget. The primary reasons for this reduction are as follows: the Washington State Audit will now only be done bi-annually rather than every year, outside CPA costs have been reduced due to the newer financial software that is used, we are reducing outside professional service expenditures, the training and travel budget is being reduced by \$10,000 from the prior year, and the District will be reducing staffing levels after a careful review of future needs.

The 1% reduction is possible even after taking into account other requirements, including the impact of inflation on general operations, a 2% cost of living allowance per the terms of our labor agreement with AFSCME Local 114WD, along with required personnel benefit increases, and continued funding of our System Reinvestment program as recommended in the Comprehensive Sewer and Water Plans. Other increases include higher fees for general liability insurance, and our share of new annual payments associated with the District's portion of the WA State mandated City of Bellingham's Post Point Sewer Plant improvements.

Following the 2014 adopted water and sewer rate plan, water and sewer base rates will each increase by 5% in January. As done in the previous year, we are conservatively budgeting for only 5 new connections. A total of 15 connections were realized in 2014. Remaining ULID No. 18 payments, which are now unrestricted, are available for general operations.

2014 Capital Improvement Accomplishments

Each year the District initiates projects from its ongoing Capital Improvement Program that are critical to maintaining our existing water and sewer systems. Of noteworthy significance in 2014 the following projects were completed: the Sudden Valley Water Treatment Plant Generator Replacement, numerous water re-builds throughout the District, and the Polo Park Bridge Replacement water main relocation in Sudden Valley.

The steel reservoir cathodic system protection program initiated in 2013 will be completed by the end of 2014. This work will assist in preventing corrosion and extending the life of our existing 5 steel reservoirs. The District in December will complete the construction of the Boulevard Sewer Pump Station Replacement project in Geneva. In addition design work was initiated for the Strawberry Point Sewer Pump Station replacement project in Geneva. Utilizing funds from a low interest \$3.6 million 20 year loan issued by the State in 2013, design and permitting on both the new Division 22 Reservoir in Sudden Valley and the 2.5 mile AC Water Main Replacement project in Geneva were started.

Finally, as described previously the City of Bellingham completed major improvements required by the State of Washington to its sewer treatment plant. By agreement, all of the Districts collected wastewater is treated by the City. The District's share of these improvements is approximately \$2.6 million of the overall \$58 million project, or 4% as based upon our usage of the treatment plant. We have budgeted \$215,000 in annual payments over the next 20 years in order to begin reimbursing the District's share of this WA state mandated project starting in 2015. This cost represents approximately 4% of the total expenditure budget.

Capital Projects in 2015

In 2015 the District will move forward on completing design and permitting on Division 22 Reservoir project with construction scheduled for the summer of 2016. The AC Water Main Replacement project including construction will be completed in 2015. In addition, the Strawberry Point Sewer Pump Station Replacement project will be put out to bid and constructed in 2015. This project is cash funded directly from sewer rates and will cost approximately \$620,000. The District will also be funding \$85,000 into the repair of sewer lines experiencing inflow and infiltration issues in the Sudden Valley community. These repairs will save the District from having to treat storm water that infiltrates into the sewer lines. The District will also be evaluating the condition of the 5 steel reservoirs in relation to their seismic condition. Each of these highlighted projects is described in detail within the 2015 budget and the District's Water and Sewer Comprehensive Plans.

Policy Issue Highlights

After working with the City of Bellingham over the last 3 years, a new 20-year sewer treatment agreement was approved earlier in 2014. The new treatment agreement complies with the WA State Auditor's recommendation to create a payment plan for

treatment costs on an actual basis paid monthly. Previously the District paid the City of Bellingham on an estimated basis with a reconciliation performed annually. The City and District had previously entered into contracts dated 1974 and 1977 so the desire to adopt a more efficient and predictable method of determining the District's proportionate share of sewer costs was achieved with the new agreement. The cost savings come about in the billing efficiency achieved as well as the monthly accountability.

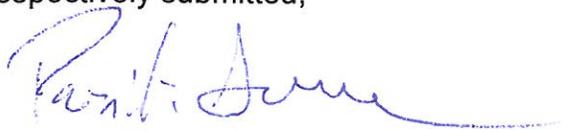
The Board of Commissioners updated and adopted the Sewer Comprehensive Plan which also included a storm water component for the very first time. With the help of Financial Consulting Services Group, the District's outside financial consultants, an updated 5-year sewer and water rate study started in 2013 was completed and presented to the public, and adopted by the Board following a public hearing during the summer.

New rates are going into effect in January 2015 and will be used to pay for needed capital improvements as previously described. The District will also be increasing its operating financial reserve for the water fund to 90 days and the sewer fund to 50 days in 2015 per industry standards.

In Conclusion

The District's overall financial condition remains healthy. We continue to follow well established conservative financial budgeting practices. Debt service requirements are being met. Resources are being saved for future capital requirements and unforeseen emergencies. The new 5-year rate structure matches our projected operating and capital improvements needs through 2019. The on-going effort of planning and preparing for the future along with the day-to-day financial and operational maintenance requirements of the District are being met. This is a result of the dedication and diligence exhibited by the Board of Commissioners in establishing governing policies and by the commitment and efficiency of staff in carrying out these policies. As always, recognition needs to be given to the employees of the District who, on a daily basis, are responsible for doing a great job in managing the resources we are entrusted with on behalf of the ratepayers.

Respectively submitted,



Patrick Sorensen
General Manager



OPERATING FUND SUMMARY 401

This fund is maintained as the primary operating fund of the District. The majority of the revenue is derived from rates charged to water and sewer customers. Other revenue sources are interest income, late payment fees, recording fees, permit fees and miscellaneous charges and fees. All fees and charges are set by the Board of Commissioners. Funds collected are used to pay for operating and maintenance expenditures in accordance with the annual operating budget.



SYSTEM REINVESTMENT FUND SUMMARY 420

The System Reinvestment Fund is a special fund intended to receive and disburse funds for capital construction projects. This fund is primarily funded through interfund income from the General Fund. It is additionally funded annually in an amount established through the rate study. Other income is in the form of grants, loans, latecomer fees and permits. The System Reinvestment Fund expenses are derived from the Capital Improvement and Maintenance Plan attached to the fiscal year 2015 budget.

SEWER/STORM WATER CONTINGENCY FUND SUMMARY 425

The Sewer/Storm Water Contingency Fund was created to ensure that unforeseen projects related to sewer system and storm water system expenses will have funding, as approved by the Board. This fund was established with the remaining ULID 18 Fund balance after paying off all Public Works Trust Fund and Department of Ecology loans associated with the ULID.

CAPITAL BOND PROJECTS FUND SUMMARY 430

The Capital Bond Projects Fund is a special fund for the utilization of the 2009 bond issuance funds. The bonds were issued for the purpose of constructing upgrades to water and sewer pump stations, replacing telemetry equipment, and reimbursing other projects contained within the District's Capital Improvement Plan dated December 10, 2008.

DWSRF PROJECTS FUND SUMMARY 440 (DRINKING WATER STATE REVOLVING FUND)

The DWSRF Projects Fund is a special fund for the utilization of two Drinking Water State Revolving Fund loans. One project replaces aging water mains including all of the asbestos concrete (AC) water mains in the Geneva service area with ductile iron (DI) water mains. The other project constructs a new .5 MG (million gallon) reservoir to keep up with population growth primarily due to infilling in Geneva and Sudden Valley.



DEBT SERVICE FUNDS

Debt Service describes all expenses in connection with the issuance and initial sale of evidences of debt, such as loans, the sale of revenue bonds, etc. The District has two debt service funds which are used to pay off loans and bonds. A Revenue Bonds and Loan Funds Summary is included in the budget document.

2009 BOND DEBT SERVICE FUND SUMMARY

450

The 2009 Bond Debt Service Fund serves to provide redemption of the 2009 Bond issue. Interest is paid semi-annually, and the principal is paid annually from General Fund revenues.

2009 BOND RESERVE FUND SUMMARY 460

This fund was established by the covenants of the 2009 bond sale and is restricted by definition. A reserve limitation is required to be held in the Reserve Fund until the outstanding 2009 bonds are paid in full. The bond reserve is fully funded.

WATER LOANS DEBT SERVICE FUND SUMMARY

470

The Water Loans Debt Service Fund serves to provide redemption of two long term water project loans. Principal and interest are paid entirely from General Fund revenues.



ULID 18 FUND SUMMARY

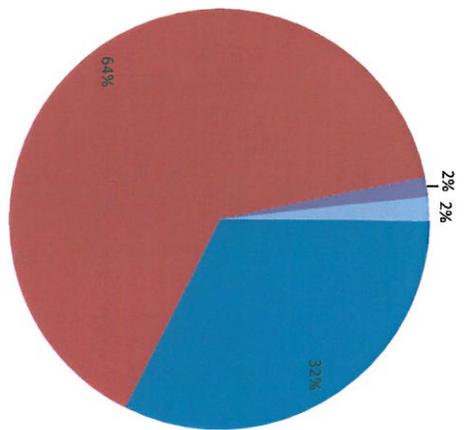
480

The ULID 18 Fund is to provide for the revenue which comes from assessments against the properties within the ULID service area, as well as the interest earned on assessments collected prior to bond payments. All debt has been satisfied for this project, and therefore funds are unrestricted. In 2013 the remaining fund balance was utilized to set up the 425 Sewer/Water Contingency Fund. This revenue source is transferred to the Operating Fund 401 monthly and will cease in 2023 upon satisfaction of all assessments by the customer base.

**LAKE WHATCOM WATER AND SEWER DISTRICT
YEAR 2015 TRANSFERS**

DESCRIPTION	FROM FUND	AMOUNT	TO FUND	AMOUNT
For System Reinvestment (per rate study)	001	700,000	420	700,000
For System Reinvestment (carryover)	001	115,000	420	115,000
For 2009 Bond Debt Service	001	448,050	450	448,050
For Water Loans Debt Service	001	63,700	470	63,700
From ULID 18 payments	480	73,000	401	73,000
TOTAL TRANSFERS		<u><u>\$ 1,399,750</u></u>		<u><u>\$ 1,399,750</u></u>

	Description	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Adopted 2014	Projected 2014	Budget 2015
OPERATING FUND - 401								
REVENUES								
401-343-20-00	Latecomer Fee	976	976	976	-	-	-	-
401-343-40-10	Water Sales Metered (5% rate increase) *	1,259,901	1,373,547	1,488,188	1,574,293	1,701,326	1,736,849	1,823,692
401-343-40-18	Water Sales Lock/Unlock	9,435	7,040	9,340	2,379	-	-	-
401-343-40-19	Water Sales Other	23,277	22,259	27,601	36,009	-	-	-
401-343-50-11	Sewer Service Residential (5% rate increase) *	2,918,830	3,074,699	3,212,626	3,408,634	3,537,394	3,446,368	3,618,687
401-343-50-19	Sewer Service Other	2,020	1,070	1,070	9,265	9,500	5,504	5,500
401-343-81-10	Combined Fees	-	-	-	-	33,000	39,933	40,000
401-359-90-00	Late fees	63,176	65,751	65,156	79,026	65,000	63,464	65,000
401-361-11-10	Investment Interest	2,353	4,709	-	246	200	1,600	2,000
401-369-10-00	Sale of scrap metal and surplus	1,028	11,283	652	20,736	3,000	1,671	-
401-369-90-00	Bank fees	229	1,421	2,165	2,808	10,000	1,545	-
401-379-10-20	Permits Operation portion (5 new connection permits)	40,390	16,134	25,607	28,225	10,000	34,558	10,000
401-395-20-00	Insurance recovery	-	-	-	6,380	-	-	-
401-395-40-00	Sale of Capital Assets	-	-	-	-	-	5,000	-
401-397-10-00-80	Transfer In from ULID 18 Fund 480	0	0	-	177,364	83,000	87,000	73,000
	TOTAL REVENUES	4,321,615	4,578,889	4,833,581	5,345,365	5,442,420	5,423,492	5,637,879



* Per Resolution 806 effective 1/1/2015
Scheduled annual rate increase

OPERATING FUND - 401		Description	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Adopted 2014	Projected 2014	Budget 2015
EXPENDITURES									
401-53X-10-10		Payroll (2% cola plus step increases - 2015)	1,072,233	1,210,935	1,370,178	1,437,609	1,450,000	1,433,967	1,451,250
401-53X-10-20		Personnel Benefits (Medical, Retirement etc)	401,827	470,142	487,173	518,800	570,000	539,666	550,000
401-53X-10-31		Gen Admn Supplies	72,150	48,808	45,187	22,827	25,000	21,620	21,000
401-53X-10-32		Meetings/Team building	-	500	978	2,087	2,500	1,550	1,500
401-53X-10-40		Bank Fees	-	5,269	9,432	11,203	9,500	16,690	18,000
		Interlocal - Lake Whatcom Management Program							
		Interlocal - Invasive Species							
		Interlocal - Lake Whatcom Tributary Monitor							
		Water Quality Assurance Programs (TOTAL)					80,000	35,297	80,000
		County Auditor Filing Fees (Simplified)							
		Data Bar (Statement processing)							
		Answering Service							
		Data Pro (Time clock system)							
		BIAS Financial Software							
		Web check services							
		GE Scada System Software Maintenance - Operations							
		WA State Auditor (next audit in 2016)							
		Wilson Engineering							
		Legal Counsel							
		3D - Computer support							
		CPA (Internal audit and Financial statements)							
		Salary Study per union contract							
		Camera Van Software							
		SCADA/PLC Support - Engineering/Operations							
		Cartograph - Engineering/Operations							
		Auto Desk - Engineering							
		Rockwell - Engineering/Operations							
		Inovise - Engineering							
		Master Meter							
		Custodial/Building maint. services/Security							
		Landscaping service							
		Docuware/Web site maintenance and upgrade							
		Generator Load Testing							
		Cyberlock software							
		Watchguard							
		Misc (Bid notices etc.)							
401-53X-10-41-01		Professional Services (TOTAL)	175,505	285,389	206,315	340,633	305,386	283,000	215,000
401-53X-10-42		Communication	48,596	53,040	42,784	44,375	40,000	47,714	50,000
401-53X-10-43		Memberships/Dues	13,401	16,313	10,755	12,204	16,000	14,609	15,000
401-53X-10-44		Advertising	3,679	-	-	-	-	-	-
401-53X-10-45		WA State Dept of Revenue Taxes (3% increase)	127,642	138,971	146,410	164,049	175,000	167,577	180,000
401-53X-10-46		Admin Lease	2,323	3,031	2,850	2,287	2,500	2,031	2,000
401-53X-10-49		Property Insurance	67,578	137,158	94,276	94,695	102,000	105,538	110,000
401-53X-10-43		Admin Misc.	38,816	(3,484)	-	2,631	6,000	873	1,000
401-53X-10-44		Training & Travel	12,659	27,518	28,136	26,707	30,000	21,190	20,000
401-53X-10-49		Tuition reimbursement	-	-	-	-	6,000	-	6,000
401-53X-10-49		Insurance Claims	-	5,000	7,455	-	-	5,000	-

SYSTEM REINVESTMENT FUND - 420		Description	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Adopted 2014	Projected 2014	Budget 2015
420-369-90-20		Prior Year Reimbursement							
420-343-40-19		DEA Permits	40,015	2,250	59,996	-	2,500	38,642	-
420-361-1-1-00		Investment Interest	17,685		-	-		-	-
420-379-10-10		CTED Grant	26,946						
420-379-10-30		Permits Capital Portion (5 new connection permits)	74,932	30,561	46,676	55,508	40,000	65,000	40,000
420-379-10-40		Latecomer Fees	300	10,389	19,074	346,806	500	-	-
420-397-10-00		Transfers In from Operating Fund 401	205,060	1,140,000			900,000	1,050,000	815,000
		Transfers In from Geneva Reserve Fund 410		138,823				-	-
		Transfers In from System Replacement Fund 415		100,000		13,538		-	-
		TOTAL REVENUES	364,938	1,422,023	125,746	415,852	943,000	1,153,642	855,000
420-534-10-41		DEA Contracted Services		29,865	6,586	3,429	2,500	-	-
420-534-90-61		DEA Refunds		4,211	-	-		-	-
420-534-60-41		Contracted Professional Services		19,617					
420-594-38-62		Capital Outlay - Structures	71,351	1,005,927	45,065	14,367	943,000	1,01,080	851,000
420-594-38-63		Capital Outlay - Water/Sewer Systems	137,366		465,860	167,684		851,000	
420-594-38-64		Capital Outlay - Machinery/Equipment		240,881	106,158	282,785		194,215	
		Active Projects					231,933		90,000
		2015 Capital Projects (see CIP detail - 2015)					944,000		765,000
		TOTAL EXPENDITURES	242,793	1,279,913	623,669	468,265	1,178,433	1,146,295	855,000
		REVENUES	364,938	1,422,023	125,746	415,852	943,000	1,153,642	855,000
		EXPENDITURES	(242,793)	(1,279,913)	(623,669)	(468,265)	(1,178,433)	(1,146,295)	(855,000)
		CASH/INVESTMENTS BALANCE CARRYOVER							
		PROPOSED 2015 YEAR END BALANCE							
		SYSTEM REINVESTMENT FUND							

	Description	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Adopted 2014	Projected 2014	Budget 2015
DWSRF PROJECTS FUND - 440								
440-333-66-46-40	Division 22 Reservoir (Permits and Design)						-	100,000
444-333-66-46-41	Geneva AC Mains (Permits, Design and Construction)						175,000	2,500,000
	TOTAL REVENUES						175,000	2,600,000
440-594-34-62	Division 22 Reservoir (Permits and Design)						35,000	100,000
440-594-34-63	Geneva AC Mains (Permits, Design and Construction)						175,000	2,500,000
	TOTAL EXPENDITURES						210,000	2,600,000
DWSRF PROJECTS FUND							175,000	2,600,000
	REVENUES						175,000	2,600,000
	EXPENDITURES						(210,000)	(2,600,000)
	CASH/INVESTMENTS BALANCE CARRYOVER							
	PROPOSED 2015 YEAR END BALANCE							-
Expenditures offset by draws as projects progress.								-

DWSRF Loan Funded Projects

FUND 440		Original	Projected Budget	Spent to Date	Amount
Category	Project #	Budget for 2013	to Completion	(11/18/2014)	Remaining
Water	C1401	160,000.00	149,734.00	32,645.81	92,088.19
		Design/Permitting/Bidding			
		ADM - Admin, Permits, Fees, Etc	35,000.00	25,000.00	
		PH1 - Pre-design Report, CUP	45,000.00	44,734.00	12,088.19
		PH2 - Design, Bidding	80,000.00	80,000.00	80,000.00
		Construction	825,000.00	835,266.00	835,266.00
		PH2 - Construction Admin/Testing/Inspection	100,000.00	100,000.00	100,000.00
		CON - Construction Contract	700,000.00	700,000.00	700,000.00
		Contingency	25,000.00	35,266.00	35,266.00
		Total	985,000.00	985,000.00	32,645.81
		Loan Fee (1% of the Total)	9,850.00	9,850.00	9,850.00
		Total Funding Request	994,850.00	994,850.00	42,495.81
Water	C1402	280,000.00	287,990.00	163,675.50	104,314.50
		Design/Permitting/Bidding			
		ADM - Admin, Permits, Fees, Etc	40,000.00	20,000.00	
		PH1 - Pre-design, Design, Bidding	240,000.00	267,990.00	163,675.50
		Construction	2,095,000.00	2,087,010.00	2,087,010.00
		PH2 - Construction Admin/Testing/Inspection	150,000.00	150,000.00	150,000.00
		CON - Construction Contract	1,845,000.00	1,845,000.00	1,845,000.00
		Contingency	100,000.00	92,010.00	92,010.00
		Total	2,375,000.00	2,375,000.00	163,675.50
		Loan Fee (1% of the Total)	23,750.00	23,750.00	2,191,324.50
		Total Funding Request	2,398,750.00	2,398,750.00	2,191,324.50
		Total for DWSRF Loan Projects	\$ 3,393,600.00	\$ 3,393,600.00	\$ 229,921.31
					\$ 3,118,678.69

Rate Funded Active Projects

FUND 420		Original	Projected Budget	Projected	Amount
Category	Project #	Project Budget	to Completion	Expenditures	Remaining
Water	C1207	13,000.00	13,000.00	-	13,000.00
		Reservoir Drains to Daylight			
		ENG - Engineering - Estimate	-	-	-
		CON - Construction - Estimate	13,000.00	13,000.00	13,000.00
General	C1214-ADM	37,960.00	37,960.00	-	37,960.00
Water	C1304-ADM	75,000.00	40,000.00	40,000.00	-
Sewer	C1316				
		Dead End Blow Offs			
		Steel Reservoir Cathodic Protection			
		Boulevard Sewer Pump Station			
		PH1 - Pre-design	89,771.00	84,771.00	84,771.00
		PH2 & 3 - Design, Services During Construction	240,000.00	188,474.00	188,474.00
		CON - Construction - Interwest Inc.	330,000.00	385,000.00	385,000.00
Water	C1403	100,000.00	99,893.78	99,893.78	-
Sewer	C1404	103,000.00	145,741.90	145,741.90	-
Sewer	C1405	100,000.00	103,411.00	98,000.00	5,411.00
Sewer	C1406	7,000.00	7,000.00	7,000.00	-
Sewer	C1407	7,000.00	7,000.00	7,000.00	-
Water	C1408	5,000.00	5,000.00	5,000.00	-
General	C1411	5,000.00	5,000.00	5,000.00	-
General	C1412	10,000.00	10,000.00	656.20	4,343.80
		Admin Building Irrigation			
		Total for Active Projects	\$ 1,122,731.00	\$ 1,132,251.68	\$ 1,042,536.88
					\$ 89,714.80

Lake Whatcom Water and Sewer District - Capital Improvement Plan 2015 thru 2020

Program Area / CIP Project # / CIP Project Name		Total	2015	2016	2017	2018	2019	2020
Both Water and Sewer								
A0005	Accounting & Administration Server - Replace/Update Hardware, Network Security, & OS	40,000					20,000	20,000
E0001	Replace Backhoe (budget estimate for new unit)	156,573						156,573
V0001	Replace Tool Truck (6 tool trucks in fleet)	106,090		53,045				53,045
V0002	Replace Administrative Staff Vehicle (3 cars in fleet)	25,887					25,887	
V0003	Replace Locator / Meter Reading Van	26,095				26,095		
V0004	Replace Light Truck	32,619				32,619		
	Subtotal	387,264	53,045	53,045	78,715	25,887	53,045	176,573
Sewer System								
0032	Agate Bay Pump Station Replacement	650,000				650,000		
0033b	Strawberry Point Pump Station Replacement (Design, Bid, Construction)	620,000	620,000					
0038	Geneva Pump Station Replacement	650,000					650,000	
0049	Country Club Pump Station Replacement	650,000				650,000		
0050	Par Lane Pump Station Replacement	650,000						650,000
0055	Rocky Ridge Pump Station Replacement	700,000						700,000
0124	Rehabilitate Old Flat Car Sewer Pump Station - Construction	75,000					75,000	
A0010	Update Sewer Comprehensive Plan (Current Plan Dated 6-14-2014)	65,000						65,000
S0001a	EPA Capacity, Management, Operations, & Maintenance (CMOM) Projects - Sewer I&I	85,000	85,000					
S0001b	EPA Capacity, Management, Operations, & Maintenance (CMOM) Projects - Sewer I&I	85,000		85,000				
S0001c	EPA Capacity, Management, Operations, & Maintenance (CMOM) Projects - Sewer I&I	640,000				160,000	160,000	160,000
	Subtotal	4,870,000	705,000	735,000	810,000	885,000	925,000	810,000
Water System								
0060	Eagleridge Fire Pump Control Upgrade	50,000				50,000		
0072	SVWTP Clearwell Overflow Drain	5,000	5,000					
0108	Replace SVWTP Booster Station Roof	25,000				25,000		
0110	Security - Intrusion Alarms at Reservoirs, Cameras at SVWTP AHWTP	10,000				10,000		
0118	Leak Locator Equipment	9,426				9,426		
0122	Security - Intrusion Alarms at Reservoirs (install pilot system at 1 site)	5,000		5,000				
0125	Mechanical Staff Gauge for SVWTP Clearwell Reservoir	10,000				10,000		
0126	SVWTP Chlorine Analyzer - Replace	5,000	5,000					
0127	Reservoir Condition Assessment - Seismic, Structural Repairs, Coatings	35,000	35,000					
A0007	Update Water Comprehensive Plan (Current Plan Dated October 2010)	100,000			100,000			
W0001	Water Service Rebuilds	20,000	10,000		10,000			
W0002	Water System Rehab and Replacement Projects	600,000					200,000	200,000
W0002b	Water System Rehab and Replacement Projects	100,000					100,000	
W0003	SVWTP Filter 3&4 Media - Replace	20,876						20,876
W0005	Reservoirs - Inspection & Maintenance	25,000				25,000		

Water System - Funding by Loan or Bond

0115	Division 7 and Geneva Reservoir Coating and Structural Repairs (Place-Holder. Need to develop cost est.)	500,000					500,000		
0116	Reservoir Seismic Restraints (Place-Holder. Need to develop cost est.)	500,000							500,000

* Note: Cost Estimates in 2015 Dollars

Subtotal	1,020,302	60,000	110,000	229,426	200,000	200,000	220,876
Subtotal	1,000,000				500,000	500,000	
Grand Total	7,277,567	765,000	898,045	1,118,141	1,110,887	1,678,045	1,707,449

CAPITAL PROJECT NARRATIVE

Project Name:	Strawberry Point Pump Station Replacement
CIP #:	0033

Asset Register:	LWWSD → Sewer → Pump Stations → Strawberry Point				
Failure Mode:	Capacity	Level of Service	<u>Mortality</u>	Efficiency	
Business Risk Exposure:	32	= 8 x 4 x 1 (PoF x CoF x Redundancy)			
Remaining Life:	0 years	Consumed Life:	40 years	Effective Life:	40 years

PURPOSE and DESCRIPTION OF THE PROJECT

Project includes retrofitting existing Smith & Loveless wet well mounted pump station with new pumps, controls, telemetry, and pole mounted work light manually switched at control panel.

The existing pump station was installed in 1974. Two existing 3 HP pumps each have a design point of 100 GPM at 23-feet TDH. Check valves are inaccessible for maintenance or cleaning; if a check valve ever jams, it would be a major project to access them for service. This station has problems keeping prime. The wet well diameter is 6-feet and the power service is currently 3-phase/ 230V. Access is off of Lake Whatcom Blvd. and pump station is surrounded by concrete walls on three sides and overhead. The retrofit is part of a District wide pump station plan to replace all 30+ year old equipment.

This pump station is a critical station located adjacent to Lake Whatcom. As part of the Lake Whatcom Boulevard Interceptor pump upgrade plan, the wet well level will be monitored via pressure transducer with backup high/low floats and the pumps will be controlled via VFD. Wet well levels and VFD control will allow the District to better manage and control pumping from the office SCADA computer during high flow wet weather events.

Budget Estimate

Work in 2014 (0033a)	
Pre-Design and Permitting (RH2):	\$103,411.00
Work in 2015 (0033b)	
Design (RH2):	\$90,000.00
Contract Admin & Inspection (RH2):	\$80,000.00
<u>Construction:</u>	<u>\$450,000.00</u>
2015 Subtotal:	\$620,000.00
Grand Total:	\$723,411.00

Cost estimate in 2015 dollars.

CAPITAL PROJECT NARRATIVE

Revision History

- Created 8/1/2006.
- Revised 8/2/2006 by MMM: Revised project scope, added budget.
- Revised 8/3/2006 by BH: Added minor note to purpose, added VFD budget.
- Revised 12/6/2007 by BH: Adjusted budget to reflect recent Plum/Strawberry Canyon PS project costs.
- Revised 8/6/2009 by BH: Adjusted budget to reflect recent Tomb PS project.
- Revised 9/28/2010 by BH: Adjusted budget.
- Revised 10/18/2013 by BH: Adjusted budget and separated work into 2 years.
- Revised 11/4/2014 by BH: Updated costs for 2015 work.

CAPITAL PROJECT NARRATIVE

Project Name:	EPA Capacity, Management, Operations, & Maintenance (CMOM) Projects – Sewer I&I
CIP #:	S0001

Asset Register:	LWWSD → Sewer → Collection System			
Failure Mode:	<u>Capacity</u>	Level of Service	Mortality	<u>Efficiency</u>
Business Risk Exposure:	15	= 3 x 5 x 1 (PoF x CoF x Redundancy)		
Remaining Life:		Consumed Life:		Effective Life:

PURPOSE and DESCRIPTION OF THE PROJECT

Combines several separate District projects into one annual project. The goal is to find and repair inflow and infiltration (I&I) sources. District crews camera sewer mains during wet season months searching for I&I.

The annual project scope and focus will vary based on the type of high priority items discovered during the previous wet season. Types of work include: sewer main slip lining (spot repairs and full lengths), pressure grouting service tees, pressure grouting manhole leaks/voids, rebuild/seal manholes, smoke testing, and other efforts to reduce I&I.

Engineering (Plans, Specs & Est.):	District Staff
Bid & Contract Administration:	District Staff
<u>Construction:</u>	<u>\$160,000 (annual target)</u>

2015 Budget: **\$85,000 available for two specific projects:**

- (1) Finish smoke testing in Sudden Valley along with various pipe and manhole repairs. Approximate budget is \$50,000.
- (2) Refurbish LLRI Whatcom Fall Park Outlet Manhole. The City's manhole has been damaged due to H₂S and erosion from District's interceptor outlet pipe. Approximate budget is \$35,000.

2016 Budget: **\$85,000 available for 3 projects:**

- (1) CIP #0124 Rehabilitate Old Flat Car Sewer Pump Station – Design Phase. Approximate budget is \$25,000 for design.
- (2) CIP #0128 Flow Meter for SVSP Drywell Pumps. Approximately \$10,000 to install a flow meter.
- (3) I&I pipe and manhole repairs. Approximate budget \$50,000.

2017 and beyond: **\$160,000 pipe, manhole, etc. repairs to reduce I&I.**

Cost estimate in 2015 dollars.

For further information about this project call Bill Hunter.

CAPITAL PROJECT NARRATIVE

Revision History

- 10/26/2011. Combined separate I&I related projects into one annual project budget. Bill Hunter. Footnote: October 2011 Pro-Vac Estimate (Hank) for Smoke Testing: \$0.65/LF and can test approximately 10,000 LF per day.
- 11/18/2013. Minor budget updates. Bill Hunter.
- 11/4/2014. Minor budget updates. Bill Hunter.

CAPITAL PROJECT NARRATIVE

Project Name:	SVWTP Clearwell Overflow Drain
CIP #:	0072

Asset Register:	LWWSD → Water → Treatment Plant			
Failure Mode:	Capacity	<u>Level of Service</u>	Mortality	Efficiency
Business Risk Exposure:	N/A	= _ x _ x _ (PoF x CoF x Redundancy)		
Remaining Life:		Consumed Life:		Effective Life:

PURPOSE and DESCRIPTION OF THE PROJECT

Project includes modifying the existing clearwell drain to provide an air gap for cross connection control. Currently the overflow drain discharges to a stormwater manhole which discharges to Lake Whatcom. The overflow drain from the backwash tank also discharges to the stormwater manhole.

Based on initial site visit observations it appears, there should be enough vertical elevation difference from the clearwell outlet to drainage swale near the gravel access road going down to Morning Beach and still get a sufficient air gap.

This project will look at realigning the overflow pipe to obtain an air gap at the drainage swale using District crew and staff to design and install the modifications. The project will also look at providing a screen air vent for the clearwell.

Materials: \$5,000

Revision History

- Created 12/6/2007 by BH.
- Revised 3/31/2008 by BH. Developed order of magnitude estimate.
- Revised 11/4/2014 by BH. Reduce scope to realign about 100-feet of outlet pipe using district forces and equipment.

CAPITAL PROJECT NARRATIVE

Project Name:	SWWTP Reagentless Chlorine Analyzer
CIP #:	0126

Asset Register:	LWWSD → Water → Treatment Plant				
Failure Mode:	Capacity	Level of Service	<u>Mortality</u>	Efficiency	
Business Risk Exposure:	9	= 9 x 1 x1 (PoF x CoF x Redundancy)			
Remaining Life:	1-Year	Consumed Life:	9-Years	Effective Life:	10-Years

PURPOSE and DESCRIPTION OF THE PROJECT

The District has 3 chlorine analyzers; 2 installed at the Sudden Valley Water Treatment Plant (SWWTP), and 1 at the Agate Heights Water Treatment. The existing units are Hach Model 9180 with the 9184 acidification unit that uses vinegar to adjust the pH in order to measure chlorine content. The units are approximate 8 to 9 years old.

Replacement parts are becoming extremely expensive. Most of the repair expense is associated with the acidification unit that requires a replacement motor every 2 to 3 years at \$1900/each. They also require 2 tubing kits per year at \$100/each along with 3 pH membranes per year at \$60/each. Operators also must keep a constant supply of vinegar in stock which is consumed at a rate of 1 gallon per week.

The project replaces 1 existing analyzer with a reagentless chlorine analyzer as a pilot test before replacing the 2 remaining units. The District should see an overall cost savings as the new units do not require all the extra parts, repairs, and vinegar associated with the acidification unit.

The proposed new unit is a Hach CL10sc Amperometric Chlorine Analyzer or similar. District crews will install the new unit.

Budget Estimate

Materials: \$5,000.00

Cost estimate in 2015 dollars.

For further information about this project call Bill Hunter

Revision History

- Created 11/4/2014 by BH.

CAPITAL PROJECT NARRATIVE

Project Name:	Reservoir Condition Assessment – Seismic, Structural, Coatings
CIP #:	0127

Asset Register:	LWWSD → Water → Distribution System → Steel Reservoirs			
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency
Business Risk Exposure:	N/A	= _ x _ x _ (PoF x CoF x Redundancy)		
Remaining Life:		Consumed Life:		Effective Life:

PURPOSE and DESCRIPTION OF THE PROJECT

Develop steel reservoir condition assessment addressing seismic resilience, known structural deficiencies/needed repairs, and condition of internal and external coatings. Policy guidance from the Board of Commissioners will assist staff to prioritize, schedule and secure funding for future reservoir capital improvements.

Tentative scope of work assignment:

District Staff:

1. Interior and exterior coating conditions, recommendations, and recoating cost estimates.
2. How are reservoirs going to be taken out of service to perform structural and coating repairs while still maintaining service to customers? (Possible assistance from consultant).
3. Should the District consider more site security (such as fences, cameras, etc...)? What are the costs of adding more layers of security? What are the consequences of not adding security? Prepare staff recommendation for consideration by Board of Commissioners.

Specialty Consultant:

1. What can the District expect if a severe earthquake occurs? Which reservoirs are likely to be out of service? What are the risks to life and property if a reservoir fails seismically?
2. What are the estimated costs for structural repairs?
3. What are the costs of seismic upgrades? Are upgrades the most economical option or should the District construct new reservoirs next to existing ones (provide redundancy to take one out of service for repairs/maintenance)?
4. What are the risks of not performing seismic upgrades?

Board of Commissioners:

1. Should the District seismically upgrade existing reservoirs?
2. Should the District add more layers of reservoir site security?

CAPITAL PROJECT NARRATIVE

Reservoir Name Plate Data

	SVWTP	Division 7	Division 22	Division 30	Geneva
Manufacturer		Union Tank Works Inc, Seattle, WA	Union Tank Works Inc, Seattle, WA	Union Tank Works Inc, Seattle, WA	Reliable Steel Fabricators, Inc., Olympia, WA
Year	1992	1971	1971	1973 (8?)	1979
Diameter (ft)		70	50	25.33	52
Height (ft)		35	35	40	32.67
Capacity (gal)		1,000,000	500,000	150,000	500,000
Engineer	Wilson Engineering	Horton Dennis & Assoc	Horton Dennis & Assoc	Horton Dennis & Assoc	
Serial #		UTW 9311	UTW 9314	UTW 9931	368
Notes:					Bottom: 1/4" Shell: 11/32", 9/32", 1/4" Top: 3/16"

Business Risk Exposure

	SVWTP	Division 7	Division 22	Division 30	Geneva
Consequence of Failure (CoF)	10 Total System Failure. Affects 100% of system.	7 Medium System Failure. Affects 40-60% of system.	7 Medium System Failure. Affects 40-60% of system.	6 Minor System Failure. Affects 20-40% of system.	6 Minor System Failure. Affects 20-40% of system.
Effective Life (years)	75	75	75	75	75
Years in Service (as of 2014)	22	43	43	36	35
% Life Consumed (as of 2014)	29%	57%	57%	48%	47%
Probability of Failure Rating (PoF)	4	7	7	6	6
Business Risk Exposure (CoF x PoF)	40	49	49	36	36
Notes:					

CAPITAL PROJECT NARRATIVE

Exterior Coating Conditions

	SWWTP	Division 7	Division 22	Division 30	Geneva
Inspection Notes	Existing paint is 12 to 15 mil. Overall, the coating is in good condition. Tnemec Rep will provide recommended products. Rep can perform color match at time of product order.	Based on the year built, it is likely a vinyl coating. Average coating thickness is 5 to 6-1/2 mils. It is the original coating. Overall doing well, but could be upgraded. Good quality original coating application evident by thorough wire brushing at the weld seams.	Based on the year built, existing coating is likely a vinyl coating. Thickness is 8 to 9 mils. Has 4 layers; topcoat, gray primer for the 2nd coat, original coat, and a first, red primer base coat. Exhibiting signs of inner coat delamination and failure of overcoat. Tnemec Rep did not think reservoir is a candidate for spot repairs, but rather an entire recoat after new Div 22 reservoir is in operation. Rep suggested "Eagle Blasting", a Zinc primer, and a modern epoxy-urethane finish.	Average thickness at 7 mils. 2 coats of paint are present. Condition is decent.	Existing thickness is 4 mils and appears to be the original finish, an old, alkyd enamel. The coating is showing signs of deterioration, which is evident through chalking of the paint, wearing at seams and evidence of sun damage. Due to the year built, this existing paint is likely lead-based. Testing needed.
Recommendation	Spot repair as needed.	Wash, grind, and apply an epoxy coat primer with an epoxy urethane topcoat.	Total recoat after new Div 22 Reservoir in operation.	Spot repair as needed.	Test paint for lead. Total recoat.

On 10/2/14, Bill Hunter and Kristin Hemenway met with Scott McConnell, TNW Inc., and visited each of the District's five steel water reservoirs to examine the condition of the coatings and for advisement on products suitable for coating repair at each reservoir. Exterior coating notes and recommendations are documented in the above table.

Tnemec Rep contact information: Scott McConnell, 7929 2nd Avenue South, Seattle, WA 98108, 206-762-5755, smcconnell@tnemec.com.

CAPITAL PROJECT NARRATIVE

Budget Estimate

Seismic/Structural Engineering Consultant: \$35,000.00

Covington Water District did condition assessment for \$60k which included 3 tanks. They also did a seismic assessment for \$20k for 2 tanks. BHC did the work.

Cost estimate in 2015 dollars.

For further information about this project call Bill Hunter

Revision History

- Created 11/18/2014 by BH.

CAPITAL PROJECT NARRATIVE

Project Name:	Water Service Rebuilds
CIP #:	W0001

Asset Register:	LWWSD → Water → Distribution System → Services			
Failure Mode:	Capacity	Level of Service	<u>Mortality</u>	Efficiency
Business Risk Exposure:	N/A	= _ x _ x _ (PoF x CoF x Redundancy)		
Remaining Life:		Consumed Life:		Effective Life:

PURPOSE and DESCRIPTION OF THE PROJECT

Rebuild old water services that do not meet District standards. Rebuilds include new brass fittings, check valves, shut off valves and meter boxes. There are approximately 85 water services that have been identified to be rebuilt.

Target is for 40 to 50 rebuilds per year

Budget Estimate

Materials: \$10,000.00

Cost estimate in 2015 dollars.

For further information about this project call Rich Munson.

Revision History

- Created 8/2/2006.
- Revised 1/5/2010 by BH: Adjusted materials cost to closer match recent brass bids. Deleted labor since it is already in the general budget.
- Revised 10/26/2011 by BH: Reduced annual budget from \$30k (85 rebuilds/year) to 15k (40-50 rebuilds/year) to better match available District labor resources.
- Revised 11/20/2013 by BH. Updated number of remaining rebuilds and annual budget.
- Revised 11/10/2014 by BH. Updated number of remaining rebuilds and annual budget.

Revenue Bonds and Loans Summary

The District has obtained publicly funded loans to construct projects. The project title, loan remaining, agency loan number, payment number and interest rates are noted as follows:

Project Title/Loan Source	Loan Balance Remaining 1/1/2015	Funding Source	Agency, Loan Number	End Date	Interest on Loan
Geneva/Sudden Valley Water Distribution Pre-Construction costs	62,583	Rates	PWTF-#PW-01-691-PRE-119	2021	1.0%
Geneva/Sudden Valley Water Distribution Construction	<u>378,016</u>	Rates	PWTF #PW-02-691-064	2022	2.0%
Total Loans Outstanding – 1/1/2015	\$440,600				
09 Rev Bonds Outstanding – 1/1/2015	\$4,860,000	Rates		2029	4.0%
Total Combined Debt Outstanding – 1/1/2015	\$5,360,000				

PWTF – Public Works Trust Fund

	Description	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Adopted 2014	Projected 2014	Budget 2015
2009 BOND DEBT SERVICE FUND - 450								
450-361-11-00	Investment Interest							
450-397-10-00	Transfers In from Operating Fund 401	434,175	447,250	295,500	443,875	447,450	447,450	448,050
	Transfers In from Bond Capital Projects Fund 430			150,000				-
	TOTAL REVENUES	434,175	447,250	445,500	443,875	447,450	447,450	448,050
450-535-10-41	Bond Admin Fee	305	303	-	-	300	300	300
450-591-35-72	Redemption of Long Term Debt	205,000	215,000	220,000	225,000	235,000	235,000	245,000
450-592-35-83	Bond Interest Payments	238,100	231,950	225,500	218,900	212,150	212,150	202,750
	TOTAL EXPENDITURES	443,405	447,253	445,500	443,900	447,450	447,450	448,050
2009 BOND DEBT SERVICE FUND								
	REVENUES	434,175	447,250	445,500	443,875	447,450	447,450	448,050
	EXPENDITURES	(443,405)	(447,253)	(445,500)	(443,900)	(447,450)	(447,450)	(448,050)
	CASH/INVESTMENTS BALANCE CARRYOVER							
	PROPOSED 2015 YEAR END BALANCE							-

ULID 18 FUND - 480	Description	Actual	Actual	Actual	Actual	Adopted	Projected	Budget
		2010	2011	2012	2013	2014	2014	2015
480-361-11-00	Investment Interest	63,026	59,793	50,356	18,136	-	-	-
480-361-40-00	ULID 18 Interest/Penalties	51,045	47,834	39,218	39,475	30,000	29,000	23,000
480-368-10-00	Current ULID 18 Principal Payments	63,948	66,417	53,041	75,197	50,000	53,000	50,000
480-379-10-30	Latecomers Fee	2,808	5,181	5,446	5,711	3,000	-	-
480-397-10-00	Transfers In from Operating Fund 401 (re-payment)	113,335	113,335	113,335	-	-	-	-
	TOTAL REVENUES	294,162	292,560	261,396	138,519	83,000	82,000	73,000
480-535-10-89	Sewer Debt Service Charges	425	400	1,221	158	-	-	-
480-591-35-73	Redemption of Long Term Debt Loan 063	232,237	236,683	241,383	2,663,577	-	294	-
480-592-35-81	Debt Service Interest Loan 44A	7,633	7,029	6,386	1,449	-	-	-
480-592-35-82	Debt Service Interest Loan 44B	64,054	60,212	58,227	8,372	-	-	-
480-592-35-83	Debt Service Interest Loan 063	8,599	7,938	7,276	6,321	-	2	-
480-597-10-00	Transfers Out to Sewer/Storm Water Contingency Fund 425				1,000,000	-	-	-
	Transfers Out to Operating Fund 401				177,364	83,000	81,500	73,000
	TOTAL EXPENDITURES	312,948	312,262	314,503	3,857,241	83,000	81,796	73,000
	REVENUES	294,162	292,560	261,396	138,519	83,000	82,000	73,000
	EXPENDITURES	(312,948)	(312,262)	(314,503)	(3,857,241)	(83,000)	(81,796)	(73,000)
	CASH/INVESTMENTS BALANCE CARRYOVER							
	PROPOSED 2015 YEAR END BALANCE							

LAKE WHATCOM WATER AND SEWER DISTRICT

PERSONNEL SUMMARY

2015 BUDGET DATA

POSITION	NO. OF EMPLOYEES	ANNUAL GROSS	ADMINISTRATION	OPERATIONS
General Manager	1	\$ 137,013	\$ 137,013	
Asst. Manager/Engineer	1	119,998	119,998	
Finance Manager/Treasurer	1	103,661	103,661	
Administrative Assistant	1	73,661	73,661	
Accounts Receivable	1	60,614	60,614	
Accounts Payable/Payroll	1	60,614	60,614	
Accounting Clerk	0.75	39,265	39,265	
Construction Engineer	1	75,826	75,826	
Engineering Tech/Safety Officer	1	66,830	66,830	
Utility Systems Specialist	1	66,830		\$ 66,830
Water Treatment Plant Operator	1	73,662		73,662
Maintenance Supervisor	1	94,029		94,029
Maintenance Worker 2	5	328,977		328,977
Maintenance Worker 1	0	-		-
Maintenance Electrician	1	85,267		85,267
Sub-Totals	17.75	<u>\$1,386,247</u>	<u>\$ 737,482</u>	<u>\$ 648,765</u>
Social Security		\$ 106,048	\$ 56,417	\$ 49,631
PERS		127,673	67,923	59,750
Unemployment		5,850	2,925	2,925
Worker's Comp (L&I)		24,990	8,745	16,245
Medical/Dental Benefits		271,821	132,260	139,561
HRA VEBA		5,400	2,700	2,700
Sub-Totals		<u>\$ 541,782</u>	<u>\$ 270,970</u>	<u>\$ 270,812</u>
GRAND TOTALS		<u><u>\$1,928,029</u></u>	<u><u>\$ 1,008,452</u></u>	<u><u>\$ 919,577</u></u>