



LAKE WHATCOM WATER AND SEWER DISTRICT  
1220 LAKEWAY DRIVE  
BELLINGHAM, WASHINGTON 98229

REGULAR MEETING  
OF THE BOARD OF COMMISSIONERS

AGENDA

*December 28, 2016*

8:00 a.m. – Regular Session

1. CALL TO ORDER
2. PUBLIC COMMENT OPPORTUNITY  
At this time, members of the public may address the Commission. Please state your name prior to making comments.
3. ADDITIONS, DELETIONS, OR CHANGES TO THE AGENDA
4. CONSENT AGENDA
5. SPECIFIC ITEMS OF BUSINESS:
  - A. Draft 2017 Budget
  - B. Non-union Staff COLA for 2017
  - C. Summary of Existing District Projects
  - D. Capital Improvement Project List
6. OTHER BUSINESS
7. MANAGER'S REPORT
8. PUBLIC COMMENT OPPORTUNITY
9. ADJOURNMENT



## LAKE WHATCOM WATER AND SEWER DISTRICT

### AGENDA BILL

DATE SUBMITTED:	December 19, 2016		
TO BOARD OF COMMISSIONERS			
FROM: Patrick Sorensen	MANAGER APPROVAL <i>Patrick Sorensen</i>		
MEETING AGENDA DATE:	December 28, 2016		
AGENDA ITEM NUMBER:	5.A.		
SUBJECT:	Draft 2017 Budget		
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL: _____	1. Draft 2017 Budget		
	2.		
	3.		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL/ OTHER <input checked="" type="checkbox"/>

#### **BACKGROUND / EXPLANATION OF IMPACT**

At the December 14, 2016 meeting, the Board discussed the proposed Budget for 2017 in depth and requested several changes. Attached is the Draft 2017 Budget with the requested changes.

#### **FISCAL IMPACT**

None at this time.

#### **RECOMMENDED BOARD ACTION**

Review and consider the proposed Budget for 2017.

#### **PROPOSED MOTION**

To adopt the 2017 Budget as presented.



**LAKE WHATCOM  
WATER AND SEWER  
DISTRICT**

**2017  
ANNUAL BUDGET**



## FY 2017 BUDGET

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# **FY 2017 Budget**

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

Approved: **December 14, 2016**

## **Board of Commissioners:**

**Laura Weide, President**

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**Todd Citron, Secretary**

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**John Carter, Commissioner**

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**Curt Casey, Commissioner**

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**Bruce Ford, Commissioner**

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**General Manager  
Patrick Sorensen**

**December 14, 2016**



LAKE WHATCOM WATER AND SEWER DISTRICT  
1220 LAKEWAY DRIVE  
BELLINGHAM, WASHINGTON 98229

(360) 734-9224  
FAX 738-8250

December 14, 2016

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

Re: Proposed 2017 Budget

Dear Commissioners:

Attached are a copy of the proposed 2017 budget and a summary of related topical issues for your consideration and discussion:

**Expenditure & Revenue Highlights**

Overall net expenditures are proposed to increase by approximately 3.75% over last year's approved 2016 Budget. One of the primary reasons for this includes labor cost increases. A cost of living increase of 2.4% and step increases for those qualified is provided for in the proposed budget. This is consistent with the terms of our labor agreement with AFSCME Local 114WD.

The District is entering into the second year of a three year contract in January. Another component of our labor costs includes an 11% increase in health and life insurance rates. The District purchases its insurance through the State's Public Employees Benefits Board (PEBB). This is the first significant increase in rates over the last three years. Rate increases in general within the private sector and with other public entities have increased by as much as 20% or more throughout the U.S. and this region. In addition, the employer cost to the State of Washington's retirement system (PERS) will be increasing by 3.3% in January.

In keeping with the District's succession plan in addressing upcoming employee retirements over the next three years we are recommending that a new full time Utility Systems Support Specialist position be added in mid-year 2017 in preparation of the pending retirement of our existing Specialist position in 2018. This is a critical position that will require training over a period of time in advance of the pending retirement. In addition, we are also budgeting for the planned promotion of an existing Maintenance Worker II position to a Maintenance Worker Lead position. This position was created in late 2016 in conjunction with our succession planning efforts and previously approved by the Board of Commissioners. General liability insurance will also be increasing by 7% in 2017. Because

of projected revenue increases Washington Department of Revenue business and occupation taxes (B&O Tax) will increase by 4%. Other operating expenses are projected to increase through the normal rate of inflation.

As described above, overall revenue in 2017 is projected to increase by approximately 4%. As called for within the District's adopted water and sewer rate plan, water rates will increase by 8.75% in January while sewer rates will increase by 2.5%. These rates are connected to projected operating and capital costs outlined in the previously adopted comprehensive planning process. The new rates were adopted previously in 2014 following a 5-year rate study. These rates were again re-evaluated this fall for their adequacy. In addition, we are conservatively budgeting for only 10 new connections in 2017. We planned for 5 connections in 2016 and realized 19. Remaining ULID No.18 payments, which are nearly paid off have been decreasing each year, and are projected to bring in approximately \$550,000 over 2017. Again, these funds are unrestricted in their use as the original loan has been paid off, and continue to be available for general operations.

#### **Operating Reserves (Working Capital)**

An operating reserve is designated to provide a liquidity cushion; it protects the utility from the risk of short-term variation in the timing of revenue collection or payment of expenses. Like other types of reserves, operating reserves also serve another purpose; they help smooth rate increases over time. In 2017 we are proposing 60 days of sewer and 90 days of water expenses which is within the industry standard of 45 - 60 days for sewer utilities and 60 - 90 days for water utilities. In 2016 our operating reserve was 45 days of sewer expenses. We are increasing this reserve by 15 days.

#### **Capital Contingencies (Water and Sewer/Stormwater)**

In addition to protecting against variations in the timing of operating costs and revenues, it is prudent to maintain a capital contingency reserve to meet unexpected emergency capital outlays. We have traditionally used replacement costs to derive the targeted reserve dollar amount which equates to 1% (up from .5% in FY 2016) of the replacement cost of fixed assets. In the 2017 budget we provide for a \$750,000 sewer reserve and a \$440,000 water reserve. Both exceed the minimum capital contingency requirement.

#### **Rate Fund System Reinvestment**

The District has a policy of setting aside a certain amount of rate revenue each year for system reinvestment. Funding depreciation expense meets several standards for responsible rates: financial integrity, rate equity, and adequacy of capital funding. For 2017 the District has budgeted system reinvestment at \$1,588,000.

#### **Projects and Significant Activities in 2016**

Each year the District initiates projects from its ongoing 6-year Capital Improvement Program that are critical to maintaining our existing water and sewer systems. These projects are identified within the District's Water and Wastewater Comprehensive Plan's and within the long-range financial and rate plan. The largest and most time consuming project over the last three years has been the Geneva AC Water Main Replacement Project. Initiated in 2015 the project was completed in 2016. Approximately 2.5 miles of water lines were replaced in the streets of the Geneva neighborhood.

Design and pre-bid preparation work for the new Division 22 water tank in Sudden Valley was also initiated in 2015. Though it will not be fully completed until 2017, much of the work was completed in 2016. The Strawberry Point Sewer Pump Station replacement project was also completed in 2016. Both the Geneva AC and the Division 22 projects were financed through a low interest \$3.3 million Washington State Department of Health (WDOH) loan received previously.

The District also completed a first time seismic assessment of its existing 5 steel water tank reservoirs. This effort will provide direction to us in the future as we plan for upgrading identified deficiencies within our comprehensive planning process. In 2016 the District also started design to the Country Club Sewer Pump Station. In addition, the District received a \$30,000 grant from the WDOH to study the financial feasibility of consolidating its Eagleridge and Agate Heights water systems along with a number of small private systems along the Northshore of Lake Whatcom. This work was initiated in the fall of 2016 and should be completed during the coming summer.

The District also initiated the Northshore Water Quality Sampling program in the late fall which will run into the summer of 2017 in order to evaluate the impact of existing onsite sewage disposal systems along the shore line. This commitment is an extension of the District's prior years goal to evaluate the value of connecting 80 + homes along Northshore Road and the shore line that are served by these existing older septic systems in an urbanized area. This is an evolutionary process of study and evaluation that will likely involve the City of Bellingham and Whatcom County. Finally, the District refunded its 2009 bond issue saving approximately \$1.1 million by issuing a 2016 bond at a lower rate and in turn paying off a \$2 million loan nearly 20 years early to the City of Bellingham for our share of required wastewater treatment plant improvements. Each of these is but a sample of the important work undertaken in 2016.

### Looking Forward Into 2017

In 2017 the District will move forward on completing and closing out the Division 22 Water Reservoir. In addition to moving forward to the North Shore water system consolidation study and the water quality study the District will also be updating our water comprehensive plan in the new year. In 2017 the District is scheduled to both design and upgrade the Country Club Sewer Pump Station. Potentially this may involve eliminating the pump station. We will also be initiating the permitting and design work associated with both the Lakewood and Geneva Sewer Pump Stations. Financially, we are scheduled to replace 3 older vehicles in 2017.

Each of these highlighted projects fall within the framework of the District's existing critical planning documents such as our Water and Sewer Comprehensive Plans and the previously adopted water and sewer rate schedule. Together these documents along with the policy direction provided by the Board of Commissioners serve the District in matching up needed resources to implement critical capital improvements and ongoing maintenance requirements.

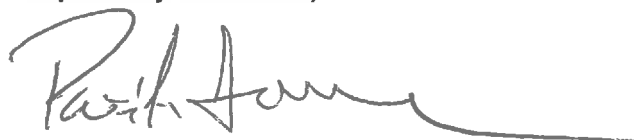
### In Conclusion

Again, the District's financial condition remains healthy and solvent. We follow long established conservative financial budgeting practices. Debt service requirements continue to be met. Resources are being saved for future capital requirements and unforeseen



emergencies. The on-going effort of planning and preparing for the future along with the operational maintenance requirements of the District are being met. This continues to be 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 are responsible for doing a great job in managing the resources we are entrusted with on behalf of the ratepayers.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Patrick Sorensen", with a long horizontal flourish extending to the right.

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 2017 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. The funding level is established at 1% of utility plant replacement cost.

## WATER CONTINGENCY FUND SUMMARY 426

The Water Contingency Fund was created to ensure that unforeseen projects related to the water system will have funding, as approved by the Board. The funding level is established at 1% of utility plant replacement cost.



## **2016 BOND CAPITAL PROJECTS FUND 431**

The 2016 Bond Capital Projects Fund was created to track the bond issue proceeds. Funds were utilized to refund the remaining 2009 issue, pay off the City of Bellingham Post Point portion and finance two capital projects.

## **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. These projects will be finalized during the 2017 budget year.



## DEBT SERVICE FUND SUMMARY 450

The Debt Service Fund serves to provide redemption of outstanding debt incurred. The 2016 Bond issue interest is paid semi-annually, and the principal is paid annually from General Fund revenues. This fund also serves to provide redemption of long term water project loans. Principal and interest are paid entirely from General Fund revenues. A "Revenue Bonds and Loan Funds Summary" is included in the budget document.

## BOND RESERVE FUND SUMMARY 460

This fund was established by the covenants of the 2016 bond sale and is restricted by definition. A reserve limitation is required to be held in the Reserve Fund until the outstanding 2016 bonds are paid in full. The bond reserve is fully funded.



# LAKE WHATCOM WATER AND SEWER FUND SUMMARY 2017

	401	420	425	426	431	440	460	460	
	OPERATING	SYSTEM REINVESTMENT	SEWER/STORM WATER CONTINGENCY	WATER CONTINGENCY	2016 BOND FUND	DHSRF PROJECTS	DEBT SERVICE	BOND RESERVE (RESTRICTED)	TOTAL
2017 REVENUES AND TRANSFERS IN	6,298,017	1,868,000	103,750	2,500	-	229,950	890,172	3,850	9,186,239
2017 EXPENDITURES AND TRANSFERS OUT	(6,928,728)	(1,868,000)	(210,200)	-	(156,923)	(1,058,100)	(913,162)	(200)	(10,935,313)
CASH/INVESTMENTS 2016 CARRYOVER	1,750,000	-	887,000	440,000	156,923	828,150	22,990	773,200	4,858,263
PROPOSED 2017 YEAR END BALANCE	\$1,119,289	\$0	\$780,550	\$442,500	\$0	\$0	\$0	\$776,850	\$3,118,189
ALLOCATED TO OPERATING RESERVES	-\$800,000								
AVAILABLE 2017 YEAR END BALANCE	\$319,289								

# LAKE WHATCOM WATER AND SEWER DISTRICT

## YEAR 2017 TRANSFERS

DESCRIPTION	FROM FUND	AMOUNT	TO FUND	AMOUNT
For System Reinvestment	401	1,598,000	420	1,598,000
For Debt Service	401	890,172	450	890,172
For Sewer/Storm Water Contingency	401	200,000	425	200,000
TOTAL TRANSFERS		<u>\$ 2,688,172</u>		<u>\$ 2,688,172</u>





	Description	Actual 2014	Actual 2015	Adopted 2016	Budget 2017
<b>OPERATING FUND - 401</b>					
<b>EXPENDITURES</b>					
401-53X-10-10	Admin Payroll (2.4% cost plus step increases - 2017)	1,437,711	544,028	629,294	639,252
401-53X-10-20	Admin Personnel Benefits (Medical Retirement etc)	507,598	191,599	207,280	269,830
401-53X-10-31	Gen Admin Supplies/Equipment	22,314	23,715	21,000	25,000
401-53X-10-31-01	Meetings/Team building	1,511	1,693	1,500	1,500
401-53X-10-40	Web pay/Bank Fees	17,405	27,760	20,000	20,000
	Interlocal - Lake Whatcom Management Program				
	Interlocal - Invasive Species				
401-534-10-41	Interlocal - Lake Whatcom Tributary Monitor				
	Water Quality Assurance Programs (TOTAL)	60,134	53,274	65,000	65,000
	County Auditor Filing Fees (Simplified)				4,500
	Delta Bar (Statement processing)				21,000
	Answering Service				1,700
	Data Pro (Time clock system)				1,500
	BIAS Financial Software				20,000
	Web Check services				5,000
	WA State Auditor				22,000
	CPA (Internal audit and Financial statements)				6,000
	Docuware/Web site maintenance and upgrade				5,000
	Legal Counsel				60,000
	3D - Computer support				20,000
	Watchguard				1,000
	Building security for offices				1,500
	Building custodial				7,700
	Pest control				600
	Landscaping service				5,500
	South Whatcom Fire (hydrant maintenance)				2,000
	GE Scada System Software Maintenance - Operations				7,500
	Wilson Engineering				7,000
	Camera Van Software				1,500
	SCADA/PLC Support - Engineering/Operations				5,000
	Cartograph - Engineering/Operations				8,000
	Auto Desk - Engineering				1,000
	GIS Partnership				1,000
	Rockwell - Engineering/Operations				500
	IT Pipes				1,500
	ESRI - ARC GIS				1,500
	Innovyze - Engineering				2,500
	Master Meter				2,000
	Generator Load Testing				22,000
	Cyberlock software				1,000
	Whatcom County Emergency Management				20,000
	Misc (Bid notices etc.)				3,000
401-53X-10-41-01	Professional Services (TOTAL)	300,258	227,893	231,500	270,000
401-53X-10-42	Communication	49,212	47,287	46,000	50,000
401-53X-10-43	Memberships/Dues	14,760	-	-	-
401-53X-10-44	WA State Dept of Revenue Taxes	166,468	-	-	-

	Description	Actual 2014	Actual 2015	Adopted 2016	Budget 2017
401-53X-10-45	Admin Lease	2,310	1,796	2,000	2,000
401-53X-10-46	Property Insurance	105,538	121,322	125,000	138,000
401-53X-10-49	Admin Misc.	800	712	1,000	1,000
401-53X-10-49-01	Memberships/Dues	-	11,077	12,000	15,000
401-53X-10-49-02	WA State Dept of Revenue Taxes/Permits	-	186,096	191,500	208,000
401-53X-40-43	Training & Travel	20,118	28,446	35,000	35,000
401-53X-40-43-01	Tuition reimbursement	-	-	1,000	1,000
401-53X-50-31	Maintenance Supplies	140,958	142,319	145,000	160,000
401-53X-50-48	Operations Repair/Maint	65,735	72,502	65,000	130,000
401-53X-50-49	Insurance Claims	5,360	11,633	5,000	5,000
401-53X-60-41	Operations Contracted	10,485	8,748	10,000	9,000
401-53X-60-47	Water City of Bellingham	34,595	37,083	40,000	40,000
401-53X-60-47	Sewer City of Bellingham Treatment Fee	674,017	564,405	600,000	615,000
401-53X-80-10	Operations Payroll (2.4% cola plus step increases - 2017)	-	967,141	908,270	951,544
401-53X-80-20	Operations Personnel Benefits (Medical Retirement etc)	-	349,954	355,900	414,930
401-53X-80-32	Fuel	32,839	27,817	30,000	20,000
401-53X-80-35	Safety Supplies	6,121	17,346	12,000	10,000
401-53X-80-35-01	Safety Supplies Boots	2,208	1,898	2,500	2,500
401-53X-80-35-02	Emergency Preparedness	202,182	188,528	195,000	208,000
401-53X-80-47	General Utilities	1,911	2,829	3,000	4,000
401-53X-80-49	Laundry	-	69,560	73,213	-
401-591-35-77	Post Point Principal Payments	-	124,080	120,426	-
401-592-35-83	Post Point Interest Payments	-	-	-	-
	<b>OPERATING EXPENDITURES</b>	<b>3,882,548</b>	<b>4,052,551</b>	<b>4,154,383</b>	<b>4,340,556</b>
<b>TRANSFERS</b>					
	Transfers Out to System Reinvestment Fund 420	947,000	392,000	530,000	1,598,000
	Transfers Out to Sewer/Storm Water Contingency Fund 425				100,000
	Transfers Out to Water Contingency Fund 426			600,000	-
	Transfers Out to DWSRF Projects Fund 440		85,095		-
	Transfers Out to Debt Service Fund 450	447,450	448,252	443,050	890,172
	Transfers Out to Bond Reserve Fund 460		250,000		-
	Transfers Out to Water Loan Debt Service Fund 470	65,339	117,185	215,470	-
	<b>TOTAL EXPENDITURES</b>	<b>5,342,337</b>	<b>5,095,083</b>	<b>6,192,903</b>	<b>6,928,728</b>
<b>OPERATING FUND</b>					
	<b>OPERATING REVENUES</b>	<b>5,470,742</b>	<b>5,470,741</b>	<b>6,049,026</b>	<b>6,298,017</b>
	<b>EXPENDITURES</b>	<b>(5,342,337)</b>	<b>(5,095,083)</b>	<b>(6,192,903)</b>	<b>(6,928,726)</b>
	<b>2016 BALANCE CARRYOVER</b>				<b>1,750,000</b>
	<b>2017 YEAR END ALLOCATED TO OPERATING RESERVES</b>				<b>(800,000)</b>
	<b>PROPOSED AVAILABLE 2017 YEAR END BALANCE</b>				<b>319,289</b>

	Description	Actual 2014	Actual 2015	Adopted 2016	Budget 2017
<b>SYSTEM REINVESTMENT FUND - 420</b>					
420-369-90-20	Prior Year Reimbursement				
420-343-40-19	DEA Permits	38,642	-		
420-379-10-30	Permits Capital Portion (10 new connection permits)	64,096	47,555	40,000	-
420-379-10-40	Latecomer Fees			-	70,000
420-397-10-00	Transfers In from Operating Fund 401	947,000	392,000	530,000	1,598,000
	<b>TOTAL REVENUES</b>	<b>1,049,738</b>	<b>439,555</b>	<b>570,000</b>	<b>1,668,000</b>
420-534-10-41	DEA Contracted Services				-
420-534-90-61	DEA Refunds	-		-	-
420-594-38-62	Capital Outlay - Structures	104,392	135,917	570,000	-
420-594-38-63	Capital Outlay - Water/Sewer Systems	750,766	290,788		-
420-594-38-64	Capital Outlay - Machinery/Equipment	194,215	12,493		-
	Active Projects to be completed in 2017				777,500
	New 2017 Capital Projects (see CIP detail - 2017)				890,500
	<b>TOTAL EXPENDITURES</b>	<b>1,049,373</b>	<b>439,198</b>	<b>570,000</b>	<b>1,668,000</b>
<b>SYSTEM REINVESTMENT FUND</b>					
	<b>REVENUES</b>	<b>1,049,738</b>	<b>439,555</b>	<b>570,000</b>	<b>1,668,000</b>
	<b>EXPENDITURES</b>	<b>(1,049,373)</b>	<b>(439,198)</b>	<b>(570,000)</b>	<b>(1,668,000)</b>
	<b>CASH/INVESTMENTS BALANCE CARRYOVER</b>				-
	<b>PROPOSED 2017 YEAR END BALANCE</b>				-

# Active Capital Improvement Projects

021

Category	Project #	Project Title / Tasks	(values updated 11/8/2016)			
			Projected Budget to Completion	Spent to Date	Amount Remaining	Notes

## Grant, Loan, and Bond Funded Projects

Water	C1401	Division 22 Reservoir Permit fees, advertising, legal, printing Engineering Consultant - Gray & Osborne Construction - T Bally DWSRF Loan Fee DWSRF Loan Fee - Amendment				
			\$ 35,000.00	\$ 32,934.58	\$ 2,065.42	
			\$ 288,414.00	\$ 185,652.27	\$ 102,761.73	Phase 1, 2, & 3
			\$ 1,402,525.00	\$ 594,580.00	\$ 807,945.00	Thru pay estimate #3
			\$ 9,850.00			
			\$ 3,000.00			
			Total Project Cost	\$ 1,736,789.00	\$ 813,166.85	\$ 912,772.15
						Amendment application in progress
			DWSRF Loan	\$ 994,850.00		
			DWSRF Loan Amendment	\$ 303,000.00		
Water	C1613	Northshore Water System Consolidation Balance Funded by 2016 Revenue Bond Total Project Funding				
			\$ 440,939.00			
			\$ 1,738,789.00			
						Amendment application in progress
						Bond planned for \$800k
Water	C1613	Northshore Water System Consolidation Funding by DOH Grant				
			\$ 30,000.00	\$ 304.00	\$ 29,696.00	

## Sewer/Storm Water Contingency Fund Projects

Sewer	C1607	Northshore Water Quality Sampling PH1 - Herrera Sampling & Analysis Plan PH2 - Herrera Implement Sampling & Analysis Project Total				
			\$ 19,052.00	\$ 11,956.80	\$ 7,095.20	
			\$ 68,295.00		\$ 68,295.00	
			\$ 87,347.00	\$ 11,956.80	\$ 75,390.20	
Storm	C1612	Cedar Hills Water Main Relocation Grand Total for Sewer/Storm Water Contingency Fund Projects				
			\$ 134,012.15	\$ -	\$ 134,012.15	County storm water treatment project
			\$ 221,358.15	\$ 11,956.80	\$ 209,402.35	

## Rate Funded Projects

Sewer	C1407	Low Sewer PS VFD Reservoir Site Security Reservoir Seismic Vulnerability Assessment BHC Consultants GeoTest				
			\$ 10,000.00	\$ 6,548.68	\$ 3,451.32	
			\$ 5,000.00		\$ 5,000.00	
			\$ 35,018.00	\$ 35,018.00		
			\$ 3,953.11	\$ 3,953.11		
Sewer	C1506B	Whatcom Falls MH Repair PH1 - Wilson Design CON - Construction - German Marina-Tomb Stationary Generator Water System Plan Update Replace SCADA Workstation Hardware Little Strawberry Water Leak on Bridge Country Club Sewer Pump Station PH1 - BHC Design, Permitting, Bidding Services During Construction - Estimate Construction - Estimate				
			\$ 35,228.00	\$ 23,724.55	\$ 11,503.45	
			\$ 126,866.39	\$ 121,039.09	\$ 5,847.30	Thru final pay estimate
			\$ 40,000.00	\$ 33,217.21	\$ 6,782.79	
			\$ 100,000.00		\$ 100,000.00	
			\$ 10,000.00	\$ 7,328.48	\$ 2,671.52	
			\$ 10,000.00		\$ 10,000.00	
Water	C1610	Grand Total for Rate Funded Projects				
			\$ 153,093.00	\$ 999.70	\$ 152,093.30	
			\$ 80,000.00		\$ 80,000.00	
			\$ 400,000.00		\$ 400,000.00	
			\$ 1,009,178.50	\$ 231,828.82	\$ 777,349.68	

# Lake Whatcom Water and Sewer District - Capital Improvement Plan 2017 thru 2022

022

Program Area / CIP Project # / CIP Project Name		Fund	Total	2017	2018	2019	2020	2021	2022
<b>Both Water and Sewer</b>									
A0005	Accounting & Administration Server - Replace/Update Hardware, Network Security, & OS		30,000	15,000			15,000		
E0001	Replace Backhoe (budget estimate for new unit)		166,108				166,108		
V0001	Replace Tool Truck (6 tool trucks in fleet)		130,000	65,000			65,000		
V0002	Replace Administrative Staff Vehicle (3 cars in fleet)		26,000	26,000					
V0003	Replace Locator / Meter Reading Van		28,000	28,000					
V0004	Replace Light Truck		30,000				30,000		
	<b>Subtotal</b>		<b>410,108</b>	<b>134,000</b>		<b>30,000</b>	<b>246,108</b>		
<b>Sewer System</b>									
0032a	Agate Bay Pump Station - Predesign and Shorelines Permitting		100,000				100,000		
0032b	Agate Bay Pump Station - Design and Bidding		100,000					100,000	
0032c	Agate Bay Pump Station - Construction		500,000						500,000
0038a	Geneva Pump Station - Predesign and Shorelines Permitting		100,000	100,000					
0038b	Geneva Pump Station - Design and Bidding		100,000	100,000					
0038c	Geneva Pump Station - Construction		475,000		475,000				
0044a	Edgewater Pump Station - Predesign and Shorelines Permitting		100,000				100,000		
0044b	Edgewater Pump Station - Design and Bidding		100,000					100,000	
0044c	Edgewater Pump Station - Construction		475,000					475,000	
0050a	Par Lane Pump Station - Permitting, Design, Bidding		175,000			175,000			
0050b	Par Lane Pump Station - Construction		400,000				400,000		
0053a	Dellesta Pump Station - Predesign and Shorelines Permitting		100,000			100,000			
0053b	Dellesta Pump Station - Design and Bidding		100,000					100,000	
0053c	Dellesta Pump Station - Construction		475,000					475,000	
0055a	Rocky Ridge Pump Station - Predesign and Shorelines Permitting		100,000		100,000				
0055b	Rocky Ridge Pump Station - Design and Bidding		100,000		100,000				
0055c	Rocky Ridge Pump Station - Construction		500,000				500,000		
0056a	Lakewood Pump Station - Predesign and Shorelines Permitting		100,000	100,000					
0056b	Lakewood Pump Station - Design and Bidding		100,000	100,000					
0056c	Lakewood Pump Station - Construction		475,000		475,000				
0128b	Procure Additional Backup Generator - Strawberry Canyon Extension Cord		20,000	20,000					
0128c	Procure Additional Backup Generator - 82KW Portable Generator		61,800				61,800		
0150	Beaver and Flat Car Level Transmitter Replacement		50,000	50,000					
0157	Install Ball Check Valves at Cable, Ranch House, Flat Car, Beaver		103,000						103,000
0161	Stationary Generator Closed Loop Cooling Retrofit - North Point, SV, Flat Car, Beaver		206,000						206,000
0163	Euclid Sewer Pump Station - Replace Controls, Add Transfer Switch, and Stationary Generator		154,500						154,500
0174	Install Ball Check Valves - 2 at Airport, 1 at Beaver		10,000	10,000					
A0010	Update Sewer Comprehensive Plan (Current Plan Dated 6-14-2014)		68,959				68,959		

Program Area / CIP Project # / CIP Project Name		Fund	Total	2017	2018	2019	2020	2021	2022
S0001a	EPA Capacity, Management, Operations, & Maintenance (CMOM) Projects - Sewer 1&1		820,000		164,000	164,000	164,000	164,000	164,000
S0001b	EPA Capacity, Management, Operations, & Maintenance (CMOM) Projects - Sewer 1&1		25,000	25,000					
	<b>Subtotal</b>		<b>6,194,259</b>	<b>505,000</b>	<b>1,375,800</b>	<b>1,107,959</b>	<b>864,000</b>	<b>1,214,000</b>	<b>1,127,500</b>
<b>Water System</b>									
0060a	Eagleridge Fire Pump Control Upgrade - Develop project scope and estimate		5,000	5,000					
0060b	Eagleridge Fire Pump Control Upgrade - Construction		35,000		35,000				
0108	Replace SVWTP Booster Station Roof		30,000	30,000					
0125	Mechanical Staff Gauge for SVWTP Clearwell Reservoir		4,000	4,000					
0130	Eagleridge Booster Station Controls Reconfiguration and PLC Programming		50,000	50,000					
0141	SVWTP Floor Coating		5,000	5,000					
0149	SVWTP Chemical Feed Pumps, Benchtop Turbidimeter		7,500	7,500					
W0002a	Water System Rehab and Replacement Projects		400,000			100,000	100,000	100,000	100,000
W0002b	Water System Rehab and Replacement Projects		80,000	40,000	40,000				
W0002d	Water Meters - Radio Read Module Replacement		660,000	110,000	110,000	110,000	110,000	110,000	110,000
W0003	SVWTP Filter 3&4 Media - Replace		22,148				22,148		
W0005	Reservoirs - Inspection & Maintenance		25,000		25,000				
W0007	SVWTP Filter 1&2 Media - Replace		22,148					22,148	
	<b>Subtotal</b>		<b>1,345,795</b>	<b>251,500</b>	<b>210,000</b>	<b>210,000</b>	<b>232,148</b>	<b>232,148</b>	<b>210,000</b>
	<b>Grand Total</b>		<b>7,950,162</b>	<b>890,500</b>	<b>1,585,800</b>	<b>1,347,959</b>	<b>1,342,256</b>	<b>1,446,148</b>	<b>1,337,500</b>

\* Note: Cost Estimates in 2017 Dollars

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## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Geneva Pump Station Replacement
<b>CIP #:</b>	0038

Asset Register:	LWWSD → Sewer → Pump Stations → Geneva				
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency	
Business Risk Exposure:	30	= 10 x 3 x 1 (PoF x CoF x Redundancy)			
Remaining Life:	-2 years	Consumed Life:	42 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 7.5 HP pumps each have a design point of 100 GPM at 65-eet 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. The retrofit is part of a District wide pump station plan to replace all 30+ year old equipment.

This pump station is located adjacent to Lake Whatcom and pumps into the gravity collection system to be re-pumped by Cable St PS. The wet well level will be monitored via pressure transducer with backup high/low floats. Pumps can be single speed. The wet well diameter is six-feet and the power service is currently 3-phase/ 230V.

Budget Estimate (*Based on Boulevard, Strawberry Pt., & Country Club Costs*)

Phase A – begin 2 years before construction	
Predesign, Shoreline Permit:	\$100,000
Phase B – begin 1 year before construction	
Design, Bidding:	\$100,000
Phase C – construction year	
Services During Construction:	\$75,000
<u>Construction:</u>	<u>\$400,000</u>
Grand Project Total:	\$675,000



## CAPITAL PROJECT NARRATIVE

### Historical Pump Station Replacement Cost Data

#### Boulevard (2014)

Pre-design and Permitting	\$90k
Design and Bidding	\$100k
Services During Construction	\$90k
Construction	\$353k
Total	\$633k

#### Strawberry Pt (2016)

Pre-design and Permitting	\$103k
Design and Bidding	\$95k
Services During Construction	\$50k
Construction	\$400k
Total	\$648k

#### Country Club (2016)

Pre-design, Permitting, Design, Bidding	\$153k
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Cost estimate in 2017 dollars.

For further information about this project call Bill Hunter.

#### Revision History

- Created 8/1/2006.
- Revised 8/2/2006 by MMM: Revised project scope, added budget.
- Revised 8/3/2006 by BH: Added to purpose.
- Revised 8/28/2006 by MMM: Revised PS description.
- Revised 12/6/2007 by BH: Adjusted budget to reflect recent Plum/Strawberry Canyon project costs.
- Revised 8/6/2009 by BH: Adjusted budget to reflect recent Tomb PS project.
- Revised 10/4/2011 by BH: Updated budget numbers to be a bit more conservative.
- Revised 12/5/2016 by BH: Updated budget numbers base on recent pump station projects.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Lakewood Pump Station Replacement
<b>CIP #:</b>	0056

Asset Register:	LWWSD → Sewer → Pump Stations → Lakewood				
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency	
Business Risk Exposure:	30	= 10 x 3 x 1 (PoF x CoF x Redundancy)			
Remaining Life:	-2 years	Consumed Life:	42 years	Effective Life:	40 years

### PURPOSE and DESCRIPTION OF THE PROJECT

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

The existing pump station was installed in 1974. Two existing 15 HP pumps each have a design point of 100 GPM at 85-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. The retrofit is part of a District wide pump station plan to replace all 30+ year old equipment.

The wet well diameter is \_\_\_\_-feet and the power service is currently 3-phase/ 230V. The service area for this very small (about 5 residences and the WWU Lakewood facility). It is re-pumped by Airport PS.

**Budget Estimate (Based on Boulevard, Strawberry Pt., & Country Club Costs)**

Phase A – begin 2 years before construction	
Predesign, Shoreline Permit:	\$100,000
Phase B – begin 1 year before construction	
Design, Bidding:	\$100,000
Phase C – construction year	
Services During Construction:	\$75,000
<u>Construction:</u>	<u>\$400,000</u>
Grand Project Total:	\$675,000

Historical Pump Station Replacement Cost Data

## CAPITAL PROJECT NARRATIVE

### Boulevard (2014)

Pre-design and Permitting	\$90k
Design and Bidding	\$100k
Services During Construction	\$90k
Construction	\$353k
Total	\$633k

### Strawberry Pt (2016)

Pre-design and Permitting	\$103k
Design and Bidding	\$95k
Services During Construction	\$50k
Construction	\$400k
Total	\$648k

### Country Club (2016)

Pre-design, Permitting, Design, Bidding	\$153k
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Cost estimate in 2017 dollars.

For further information about this project call Bill Hunter.

### Revision History

- Created 8/2/2006.
- Revised 8/2/2006 by MMM: Revised project scope, added budget.
- Revised 8/3/2006 by BH: Added to purpose.
- Revised 12/6/2007 by BH: Adjusted budget up slightly.
- Revised 8/6/2009 by BH: Adjusted budget to reflect recent Tomb PS project.
- Revised 10/4/2011 by BH: Updated budget numbers to be a bit more conservative.
- Revised 12/5/2016 by BH: Updated budget numbers base on recent pump station projects.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Eagleridge Fire Pump Control Upgrade
<b>CIP #:</b>	0060

Asset Register:	LWWSD → Water → Pump Stations → Eagleridge				
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency	
Business Risk Exposure:	20	= 10 x 2 x 1 (PoF x CoF x Redundancy)			
Remaining Life:	-6	Consumed Life:	26	Effective Life:	20

### PURPOSE and DESCRIPTION OF THE PROJECT

Update fire pump controls and electrical service. The update increases reliability of the fire pumps to deliver fire fighting water, at the expense of operating to the point of fire pump/motor failure. Current electrical code values delivery of water to protect life and property more than protecting the mechanical/electrical components.

Existing fire pumps have starters that have automatic overload protection which is set very close to full load running amps. An automatic shutdown of fire pumps could occur during fire pump operation. Existing disconnects are not rated for use as service equipment. Disconnecting means must be lockable in the closed position. Existing overcurrent protective devices are 80 amp breakers. Current code calls for overcurrent protection for full lock rotor current. Each motor is approximately 218 amps. For detailed project information, see report by Ken Zangari dated April 24, 2006.

Project includes control and service updates to increase reliability of fire pumps per current electrical code.

#### Budget Estimate

##### **0060a - 2017**

Develop Scope and Cost Estimate: \$5,000

**0060b – 2018** (scope and cost estimates to be developed in 0060a, numbers below are order of magnitude estimates)

Construction: \$30,000

Contract Administration: \$5,000

Total: \$40,000

For further information about this project call Bill Hunter.

#### Revision History

- Created 7/21/2006 by BH.
- Updated 12/5/2016 by BH. Created initial action item to get a better handle on actual scope of work and a construction cost estimate)

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Sudden Valley WTP Pump Station Roof
<b>CIP #:</b>	0108

Asset Register:	LWWSO → Water → South Shore → Sudden Valley WTP				
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency	
Business Risk Exposure:	90	= 9 x 10 x 1 (PoF x CoF x Redundancy)			
Remaining Life:	6	Consumed Life:	24	Effective Life:	30

### PURPOSE and DESCRIPTION OF THE PROJECT

The SVWTP Pump Station roof needs to be upgraded. The existing roof is approximately 2000 square feet in area, and constructed of asphalt shingles. The replacement roof will be constructed of a 26 gauge metal with a corrosion resistant coating. The benefits of a metal roof compared to a composition shingle roof include, withstanding high winds, less weight putting less stress on the structure, fire proof resulting in lower insurance rates and increased safety, environmentally friendly, 100% recyclable, and longevity.

### Budget Estimate

Phase 1 - Engineering	
Engineering (Plans, Specs & Est.):	\$0
Phase 2 - Construction	
Bid & Contract Administration & Inspection:	\$0
Construction:	<u>\$30,000</u>
Subtotal:	\$30,000
Total:	\$30,000

Cost in 2012 dollars.

For further information about this project contact Carl Hathcock.

### Revision History

- Created 11/19/2012 by CH.
- Updated 12/5/2016 by BH. Adjusted cost estimate to account for inflation from 2012.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Staff Gauge at SVWTP Contact Tank
<b>CIP #:</b>	0125

Asset Register:	LWWSO → Water → Treatment Plant → Sudden Valley				
Failure Mode:	<u>Capacity</u>	Level of Service	Mortality	Efficiency	
Business Risk Exposure:		= _ x _ x _ (PoF x CoF x Redundancy)			
Remaining Life:	N/A	Consumed Life:	N/A	Effective Life:	60

### **PURPOSE and DESCRIPTION OF THE PROJECT**

Install a staff gauge, liquid level indicator, at the Sudden Valley Water Treatment Plant to provide a visual indicator of the stored water level.

The water level at the SVWTP contact tank is currently measured and monitored through the District's SCADA system. The installation of a staff gauge at the reservoir will provide a way to quickly determine the water level without use of a computer. Changes in the water level of the tank will raise or lower a float, which will move an indicator cable to display a level on a gaugeboard mounted to the exterior of the tank. The gauge will be visible from the treatment plant parking lot so that all staff can see the gauge and will be able to easily identify a water storage issue.

**Budget Estimate: \$4,000 (2017 dollars)**

Assumes installation by District crew.

For further information about this project call Bill Hunter

#### **Revision History**

- Created 12/6/2015 by KH.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Procure Additional Backup Generators
<b>CIP #:</b>	0128

Asset Register:	LWWSD → Sewer → Pump Stations				
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency	
Business Risk Exposure:	9	= 3 x 3 x 1 (PoF x CoF x Redundancy)			
Remaining Life:	N/A	Consumed Life:	N/A	Effective Life:	30

### PURPOSE and DESCRIPTION OF THE PROJECT

Several recent wind storm and wide spread power outage events (August 29<sup>th</sup> storm and a couple in October/November 2015) highlighted a challenge and urgency for District crews to get portable generators to several smaller but critical sewer pump stations.

Staff recommends procuring an additional generator, installing a permanent extension cord at Strawberry Canyon, and installing a stationary generator to serve both Marin and Tomb.

Phase A (2016): Completed in 2016

Phase B (2017): The station is situated at the end of a long narrow dead end cul-de-sac in Sudden Valley. Maneuvering a generator into position is difficult. The original concept was to install a permanent extension cord at Strawberry Canyon sewer pump station with a receptacle at a location to simplify and expedite portable generator hookup. As staff looked into the details of this concept, the possible receptacle locations did not provide the benefit originally thought. The pump motors run off a typical single phase 240v system similar to that of a residence. Staff explored a different solution that installs a small propane generator and auto transfer switch. The alternate solution is a little more capital, but provides a huge benefit of a permanent stationary generator and frees up a larger and more expensive portable generator for use at other stations.

Phase C (2018): Procure an additional portable generator.

#### Budget Estimate

Phase B (2017):	
\$15,000	Propane powered stationary generator
\$ 5,000	Slab, site work, field wiring
\$20,000	Total estimate

Phase C (2018): \$60,000 (82KW trailered generator from GSA)

## CAPITAL PROJECT NARRATIVE

Assumes site prep and installation by District crews. Cost estimate in 2017 dollars. For further information about this project call Bill Hunter

### Revision History

- Created 12/2/2015 by BH.
- Updated 12/5/2016 by BH. Revised Phase C scope of work.



## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Eagleridge Booster Station Controls Reconfiguration and PLC Programming
<b>CIP #:</b>	0130

Asset Register:	LWWSD → Water → Pump Stations → Eagleridge				
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency	
Business Risk Exposure:	20	= 10 x 2 x 1 (PoF x CoF x Redundancy)			
Remaining Life:	-6	Consumed Life:	26	Effective Life:	20

### PURPOSE and DESCRIPTION OF THE PROJECT

Eagleridge Booster Station, installed in 1990, is a closed-zone, packaged booster pump station, which includes pumps, control panels, and instrumentation. LWWSD does not currently have the ability to monitor and control the booster pump station through its on-site telemetry system and remote Supervisory Control and Data Acquisition System (SCADA) as the packaged pump station is a standalone system, which does not interface with the SCADA system. This project involves preparing schematic electrical plans for interfacing the packaged pump station control system with the existing telemetry system, and to provide control system software development services for the on-site telemetry system.

LWWSD will be performing the electrical construction work associated with the control system upgrades, in-house. A controls engineering consultant will provide on-site field assistance with testing, implementing, and commissioning the control system software upgrades.

#### Budget Estimate

Controls Engineering and Programming	
Design Schematics:	\$8,000
PLC Programming, O&M Manuals:	\$35,000
<u>Electrical Permits, Materials, Etc:</u>	<u>\$7,000</u>
Total:	\$50,000

For further information about this project call Bill Hunter.

#### Revision History

- Created 1/22/2015 by BH.
- Updated 12/6/2016 by BH. Updated budget estimate based on consultant estimate for proposed scope of work.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	SWWTP Floor Coating
<b>CIP #:</b>	0141

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

### PURPOSE and DESCRIPTION OF THE PROJECT

Clean, repair and coat concrete floor surfaces in the Sudden Valley Water Treatment Plant with an epoxy based concrete floor paint and urethane top coat.

The existing concrete floor in the treatment plant is the original concrete from the early 1970's construction of the plant. The existing concrete floor is degrading with moderate amounts of cracking and peeling. The aged surface is difficult to clean, slippery when wet and the cracks are an avenue for pests within the treatment plant. The proposed epoxy floor coating project will begin with crack sealing and surface preparation and rehabilitation of the peeled areas. The proposed epoxy based floor coating will contain an aggregate to provide surface traction and a chemical resistant urethane coating for durability, resistance to chemicals and for ease in cleaning and maintaining the coating.

**Budget Estimate: \$5,000 (2017 dollars)**

Assumes work to be done by District crew.

#### Revision History

- Created 12/18/2015 by BH.
- Updated 12/6/2016 by KH.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	SVWTP Benchtop Turbidimeter and Spare Chemical Feed Pumps
<b>CIP #:</b>	0149

Asset Register:	LWWSD → Water → Treatment Plants → SWWTP				
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency	
Business Risk Exposure:	N/A	= _ x _ x _1 (PoF x CoF x Redundancy)			
Remaining Life:	N/A	Consumed Life:	N/A	Effective Life:	N/A

### PURPOSE and DESCRIPTION OF THE PROJECT

This project procures spare chemical feed pumps for Sudden Valley and Agate Water Treatment Plants. It also includes purchasing a benchtop turbidimeter which will be required by the Washington State Department of Health to grab sample verify readings from the continuous turbidimeters.

#### Budget Estimate:

SVWTP Spare Chemical Feed Pumps	\$3,500
Agate WTP Spare Chemical Feed Pumps	\$2,000
SVWTP Benchtop Turbidimeter	<u>\$2,000</u>
<b>Total</b>	<b>\$7,500</b>

Cost estimate in 2017 dollars.

For further information about this project call Bill Hunter or Kevin Cook.

#### Revision History

- Created 12/6/2016 by BH.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Beaver and Flat Car Level Transmitter Replacement
<b>CIP #:</b>	0150

Asset Register:	LWWSD → Sewer → Pump Stations → Lakewood				
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency	
Business Risk Exposure:	20	= 10 x 2 x 1 (PoF x CoF x Redundancy)			
Remaining Life:	1 year	Consumed Life:	14 years	Effective Life:	15 years

### PURPOSE and DESCRIPTION OF THE PROJECT

Three pump stations installed with the Lake Louise Road Sewer Interceptor Project in 2002 are all controlled using ultra-sonic level transmitters. In early 2016 the level transmitter at Sudden Valley Sewer Pump Station began to fail requiring an emergency construction contract to make repairs. This project replaces similar transmitters at the two other stations - Flat Car and Beaver.

#### Budget Estimate

The cost for the C1609 Sudden Valley Pump Station Emergency Repair Project was about \$25,000.

The estimate for Flat Car and Beaver is 2 x \$25k = \$50k

Cost estimate in 2017 dollars.

For further information about this project call Bill Hunter.

#### Revision History

- Created 12/5/2016 by BH.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Accounting & Administrative Server – Replace/Update Hardware, Network Security, & OS
<b>CIP #:</b>	A0005

Asset Register:	LWWSD → General → Admin Building → IT				
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency	
Business Risk Exposure:	30	= 10 x 3 x 1 (PoF x CoF x Redundancy)			
Remaining Life:	0 years	Consumed Life:	3 years	Effective Life:	3 years

### PURPOSE and DESCRIPTION OF THE PROJECT

Replace/update accounting and administrative server, network security firewalls, and operating systems. Information technology professionals typically recommend a server hardware refresh cycle every 3 to 4 years as best practice.

The District currently utilizes a single server running several virtualized servers. The servers are essential to daily operations including accounting and customer service (BIAS), electronic document management of district archive files (Docuware), computerize maintenance management system (Cartegraph), geographic information system (GIS), data files, and shared calendars.

District customers, Board of Commissioners, and management expect a very high level of service delivered by the server. Continuous service with no more than one 4-hour or longer unplanned outage during business hours per year is management's level of service goal. To meet this level of service, replacement of server hardware should follow industry best practice of a 3-year replacement cycle.

Budget Estimate:      \$15,000.00      (2017 dollars)

For further information about this project call Bill Hunter.

#### Revision History

- Created 7/19/2006.
- Update 8/2/2006.
- Update description 11/7/2012. Bill Hunter.
- Updated 12/5/2016 by BH. Updated budget estimate.

## CAPITAL PROJECT NARRATIVE

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

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

### 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>\$164,800 (annual target)</u>

**Annual Budget:**      **2017 Reduced to \$25,000 to allocate more \$ for other major sewer projects (Geneva and Lakewood Pump stations)**

**2018 and beyond = \$164,000**

Cost estimate in 2017 dollars.

For further information about this project call Bill Hunter.

#### 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.
- 12/6/2016. Updated budget for year 2017. BH.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Replace Tool Trucks
<b>CIP #:</b>	V0001

Asset Register:	LWWSD → General → Vehicles and Equipment → Tool Truck				
Failure Mode:	Capacity	<u>Level of Service</u>	<u>Mortality</u>	Efficiency	
Business Risk Exposure:	N/A	= _ x _ x _ (PoF x CoF x Redundancy)			
Remaining Life:	N/A	Consumed Life:	N/A	Effective Life:	N/A

### PURPOSE and DESCRIPTION OF THE PROJECT

Project includes replacing a Tool Truck approximately every 3 years. There are 6 Tool trucks currently in the fleet.

The District has targeted a 15 to 18 year replacement schedule. The trucks are well maintained and should last their targeted service life. The replacement cycle assumes trucks may need to have a few major repairs but the overall cost is less than purchasing trucks on a more frequent schedule.

Existing tool trucks average 12,000 – 15,000 miles per year. After 15-years of service a truck would have 180,000 to 225,000 miles.

**Budget Estimate : \$65,000 (2017 dollars)**

#### Revision History

- Updated 12/5/2016 by BH. Updated description and budget estimate based on current state bid prices.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Replace Administrative Staff Vehicle
<b>CIP #:</b>	V0002

Asset Register:	LWWSD → General → Vehicles and Equipment → Staff Vehicle				
Failure Mode:	Capacity	<u>Level of Service</u>	<u>Mortality</u>	Efficiency	
Business Risk Exposure:	N/A	= _ x _ x _ (PoF x CoF x Redundancy)			
Remaining Life:	N/A	Consumed Life:	N/A	Effective Life:	N/A

### **PURPOSE and DESCRIPTION OF THE PROJECT**

Project includes replacement of Administrative Staff passenger vehicles

As of 12/6/2016 there are 3 administrative staff vehicles. The target service life is 12 years. One replacement vehicle every 4 years will meet this target. The oldest vehicle will be taken out of service and auctioned as surplus.

Vehicles in Service	Age	Mileage as of 12/6/2016	Average Annual Mileage
2000 Mazda Protégé	16	60,590	3,788
2006 Chevrolet Impala	10	42,685	4,268
2011 Ford Escape	5	33,178	6,636

Budget Estimate: \$26,000 (2017 dollars)

#### Revision History

- Created 7/19/2006. RM.
- Updated 9/20/2010. Revised cost estimate based on 2010 State Bid price for Ford Escape. Revised replacement frequency. BH.
- Updated 12/6/2016 by BH. Updated description, vehicle list and stats, estimate based on state bid prices for a Ford Escape.



## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Replace Meter Reading Van
<b>CIP #:</b>	V0003

Asset Register:	LWWSD → General → Vehicles and Equipment → Meter Reading Van				
Failure Mode:	Capacity	<u>Level of Service</u>	<u>Mortality</u>	Efficiency	
Business Risk Exposure:	N/A	= _ x _ x _ (PoF x CoF x Redundancy)			
Remaining Life:	N/A	Consumed Life:	N/A	Effective Life:	N/A

### PURPOSE and DESCRIPTION OF THE PROJECT

Project includes replacement of the Meter Reading Van. The van is utilized every day and all day by the Utility System Support Specialist to perform field customer service, meter reading, maintenance, and utility locates.

The existing van purchased in June 2006 is starting to exhibit heavy wear and tear along with increased repairs and maintenance requirements. A 10-year target service life appears to be about the sweet spot in terms of getting the best value out of the asset before reliability becomes an issue.

Budget Estimate:      \$28,000 (2017 dollars)

For further information about this project call Rich Munson.

#### Revision History

- Created 7/19/2006.
- Updated 12/5/2016 by BH. Updated description and budget estimate based on state bid prices.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Water System Rehabilitation and Replacement Projects
<b>CIP #:</b>	W0002

<b>Asset Register:</b>	LWWSD → Water → Distribution System			
<b>Failure Mode:</b>	Capacity	<u>Level of Service</u>	<u>Mortality</u>	Efficiency
<b>Business Risk Exposure:</b>	18	= 9 x 2 x 1 (PoF x CoF x Redundancy)		
<b>Remaining Life:</b>		<b>Consumed Life:</b>		<b>Effective Life:</b>

### PURPOSE and DESCRIPTION OF THE PROJECT

Combines several separate District projects into one recurring annual project. The intent is to rehabilitate or replace aging water distribution system mains, service lines, hydrants, and valves.

As infrastructure is assessed and found nearing end of useful life, it will be scheduled for renewal using this annual project budget. The annual project scope and focus will vary based on the type of high priority items discovered during the previous year.

Target Water System Reinvestment (per 2016 rate study)

2017	\$200k
2018	\$210k
2019	\$220k
2020	\$230k
2021	\$240k
2022	\$250k

For 2017, the Water System Rehab and Replacement Projects include:

\$110,000 for Water Meter Radio Read Module Replacement (assumes 667 new units at \$165/each)

\$40,000 for additional water main blow off assemblies, repair and maintenance to existing blow off assemblies, capping and abandoning dead-end water mains without current service connections, maintenance and addition of water main gate valves, and replacement of Lakeway/Scenic booster pumps with pressure reducing valves.

The 2017 Capital Improvement Plan utilizes the balance of the annual target water system reinvestment for specific water system improvement projects that are individually named and described in the 2017 Capital Improvement Plan.

## **CAPITAL PROJECT NARRATIVE**

Cost estimates in 2017 dollars.

For further information about this project call Bill Hunter.

### **Revision History**

- Created 8/2/2006.
- 11/20/2013. Combined separate water related projects into one recurring annual project budget. Bill Hunter.
- Updated 12/5/2016 by BH. Revised target amounts and updated scope for 2017.

## CAPITAL PROJECT NARRATIVE

<b>Project Name:</b>	Install Ball Check Valves – 2 at Airport, 1 at Beaver
<b>CIP #:</b>	0174

Asset Register:	LWWSD → Sewer → Pump Stations → Airport & Beaver				
Failure Mode:	Capacity	Level of Service	Mortality	Efficiency	
Business Risk Exposure:	12	= 6 x 2 x 1 (PoF x CoF x Redundancy)			
Remaining Life:	6 year	Consumed Life:	14 years	Effective Life:	20 years

### PURPOSE and DESCRIPTION OF THE PROJECT

Replace 2 existing 4" swing check valves and switches at Airport Sewer Pump Station and 1 10" switch check valve and switch at Beaver Sewer Pump Station.

The switches on the Airport swing check valves are causing nuisance alarms for District crew. The amount of motion the swing check moves is small and sometimes is not enough to trip a switch that verifies pumps are operating causing an alarm.

The swing checks at Beaver sewer pump station require biannual cleaning and maintenance. Crew would like to test a ball check to see if they are nearly maintenance free as in applications on smaller stations.

#### Budget Estimate:

(2) 4" Ball Check Valves	\$3,000
(1) 10" Ball Check Valve	\$7,000
<b>Total</b>	<b>\$10,000</b>

Cost estimate in 2017 dollars.

For further information about this project call Bill Hunter.

#### Revision History

- Created 12/20/2016 by BH.

	Description	Actual 2014	Actual 2015	Adopted 2016	Budget 2017
<b>SEWER/STORM WATER CONTINGENCY FUND - 425</b>					
425-361-11-00-25	Investment Interest .5%				
425-397-10-00-10	Transfers In from Operating Fund 401	869	4345	5,020	3,750
					100,000
	<b>TOTAL REVENUES</b>	869	4,345	5,020	103,750
425-535-10-41	Stormwater Comp Plan (See Active Projects C1315 PH2)				
425-535-10-42	Investment Service Charges	9,654	-	-	-
	SVCA Culverts	190	197	200	200
	SV Sewer Pump Station Emergency Repairs			10,000	
	North Shore Sampling			25,000	
	Cedar Hills Storm Drain Relocate			20,000	75,000
				135,000	135,000
425-594-38-64	Machinery/Equipment		1,300		
	<b>TOTAL EXPENDITURES</b>	9,844	1,497	190,200	210,200
	<b>REVENUES</b>				
	<b>EXPENDITURES</b>	869	4,345	5,020	103,750
	<b>CASH/INVESTMENTS BALANCE CARRYOVER</b>	(9,844)	(1,497)	(190,200)	(210,200)
	<b>PROPOSED 2017 YEAR END BALANCE</b>				887,000
					760,550
<b>WATER CONTINGENCY FUND 426</b>					
426-361-11-00-26	Investment Interest .5%				
426-397-10-00-26	Transfers In from Operating Fund 401			-	2,500
	<b>TOTAL REVENUES</b>	-	-	600,000	-
				600,000	2,500
426-535-10-41-26	Investment Service Charges				
426-594-38-63-26	Capital Outlay - Water Systems			-	-
426-597-10-00-26	Transfer Out to Operating Fund 101			160,000	
	<b>TOTAL EXPENDITURES</b>	-	-	160,000	-
<b>WATER CONTINGENCY FUND</b>					
	<b>REVENUES</b>				
	<b>EXPENDITURES</b>			600,000	2,500
	<b>CASH/INVESTMENTS BALANCE CARRYOVER</b>			(160,000)	-
	<b>PROPOSED 2017 YEAR END BALANCE</b>				440,000
					442,500

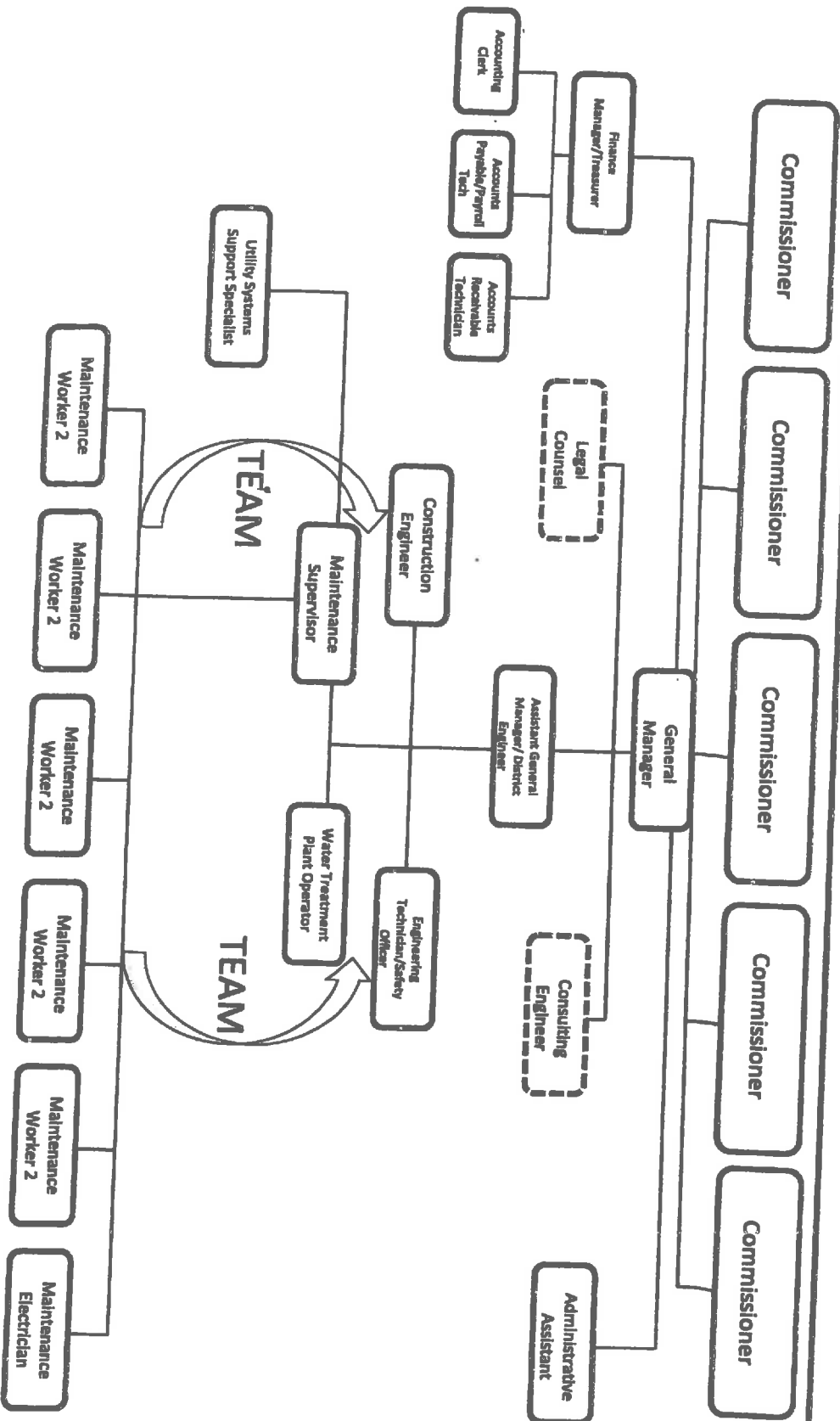
	Description	Actual 2014	Actual 2015	Adopted 2016	Budget 2017
<b>2016 BOND CAPITAL PROJECTS FUND 431</b>					
431-391-20-00-00	Bond proceeds			6,409,492	
431-392-00-00-00	Bond premium			923,843	
	<b>TOTAL REVENUES</b>			<b>7,333,335</b>	-
431-691-35-77-31	City of Bellingham Post Point Principal			2,219,691	
431-692-35-83-31	City of Bellingham Post Point Interest			8,570	
431-692-38-00-00	2016 Bond Issuance Costs			101,783	
431-699-38-00-00	2009 Refunded Bonds			3,803,391	
431-694-38-63-31	Capital Outlay - Strawberry Point Pump Station			371,850	156,923
431-697-10-00-36	Transfer Out to Division 22 Reservoir Project Fund 440			828,150	
	<b>TOTAL EXPENDITURES</b>			<b>7,333,335</b>	<b>156,923</b>
<b>2016 BOND CAPITAL PROJECTS FUND</b>					
	<b>REVENUES</b>			<b>7,333,335</b>	-
	<b>EXPENDITURES</b>			<b>7,333,335</b>	<b>(156,923)</b>
	<b>CASH/INVESTMENTS BALANCE CARRYOVER</b>				<b>156,923</b>
	<b>PROPOSED 2017 YEAR END BALANCE</b>				-
<b>DWSRF PROJECTS FUND - 440</b>					
440-333-66-46-41	Geneva AC Mains				
440-333-66-46-42	Division 22 Reservoir	175,649	1,844,943		-
			44,718	994,850	229,950
440-397-10-40	Transfers In from 2016 Bond Fund 431			828,150	
	Transfers In from Operating Fund 401 for Div 22		4,585		-
	Transfers In from Operating Fund 401 For Geneva AC Mains		80,510		
	<b>TOTAL REVENUES</b>	<b>175,649</b>	<b>1,974,756</b>	<b>1,823,000</b>	<b>229,950</b>
440-594-34-62	Division 22 Reservoir	42,048	13,441	1,823,000	1,058,100
440-594-34-63	Geneva AC Mains	175,649	2,279,861		-
	<b>TOTAL EXPENDITURES</b>	<b>217,697</b>	<b>2,293,302</b>	<b>1,823,000</b>	<b>1,058,100</b>
<b>DWSRF PROJECTS FUND</b>					
	<b>REVENUES</b>	<b>175,649</b>	<b>1,974,756</b>	<b>1,823,000</b>	<b>229,950</b>
	<b>EXPENDITURES</b>	<b>(217,697)</b>	<b>(2,293,302)</b>	<b>(1,823,000)</b>	<b>(1,058,100)</b>
	<b>CASH/INVESTMENTS BALANCE CARRYOVER</b>				<b>828,150</b>
	<b>PROPOSED 2017 YEAR END BALANCE</b>				-
<b>Expenditures offset by draws as projects progress.</b>					

	Description	Actual 2014	Actual 2015	Adopted 2016	Budget 2017
<b>DEBT SERVICE FUND - 450</b>					
450-391-20-00-50	2016 Bond Proceeds				
450-397-10-00-70	Transfers in from Operating Fund 401 - Water loan projects	65,339	117,185	5,508	264,987
450-397-10-00-50	Transfers in from Operating Fund 401 - Bond payments	447,450	448,252	443,050	625,185
	<b>TOTAL REVENUES</b>	<b>512,789</b>	<b>565,437</b>	<b>664,028</b>	<b>890,172</b>
450-535-10-41-50	Bond Admin Fee		503	100	100
450-591-34-77-41	Redemption of Long Term Debt Geneva AC Mains				43,023
450-591-34-77-42	Redemption of Long Term Debt Div 22 Reservoir				119,937
450-591-34-77-72	Redemption of Long Term Debt Loan 119	8,940	62,583	47,252	-
450-592-34-83-41	Debt Service Interest Geneva AC Mains	47,252	47,252	41,624	47,252
450-592-34-83-42	Debt Service Interest Div 22 Reservoir				14,923
450-592-34-83-72	Debt Service Interest Loan 119	715	417	-	34,182
450-592-34-83-73	Debt Service Interest Loan 064	8,505	6,930	6,615	5,670
450-591-35-72-50	2009 Bond Principal Payments				265,000
450-591-35-72-51	2016 Bond Principal Payments	235,000	245,000	250,000	125,000
450-592-35-83-50	2009 Bond Interest Payments				30,900
450-592-35-83-51	2016 Bond Interest Payments	212,150	202,750	192,950	227,175
	<b>TOTAL EXPENDITURES</b>	<b>512,562</b>	<b>565,435</b>	<b>538,541</b>	<b>913,162</b>
<b>DEBT SERVICE FUND</b>					
	<b>REVENUES</b>	<b>512,789</b>	<b>565,437</b>	<b>664,028</b>	<b>890,172</b>
	<b>EXPENDITURES</b>	<b>(512,562)</b>	<b>(565,435)</b>	<b>(538,541)</b>	<b>(913,162)</b>
	<b>CASH/INVESTMENT'S BALANCE CARRYOVER</b>				<b>22,990</b>
	<b>PROPOSED 2017 YEAR END BALANCE</b>				<b>-</b>

	Description	Actual 2014	Actual 2015	Adopted 2016	Budget 2017
<b>BOND RESERVE FUND (RESTRICTED) - 460</b>					
460-361-11-00	Investment Interest .5%				
460-397-10-00-60	Transfers In from Operating Fund 401	2,860	9,813	10,000	3,850
				250,000	
	<b>TOTAL REVENUES</b>				
460-535-10-41	Investment Service Charges	2,860	9,813	260,000	3,850
		205	197	200	200
	<b>TOTAL EXPENDITURES</b>				
		205	197	200	200
<b>BOND RESERVE FUND (RESTRICTED)</b>					
	<b>REVENUES</b>				
	<b>EXPENDITURES</b>	2,860	9,813	260,000	3,850
	<b>CASH/INVESTMENTS BALANCE CARRYOVER</b>	(205)	(197)	(200)	(200)
	<b>PROPOSED 2017 YEAR END BALANCE</b>				773,200
					776,850



# Lake Whatcom Water & Sewer District Organization Chart



Effective July 11, 2012

# LAKE WHATCOM WATER AND SEWER DISTRICT

## PERSONNEL SUMMARY


2017 BUDGET DATA

POSITION	NO. OF EMPLOYEES	ANNUAL GROSS	ADMINISTRATION	OPERATIONS
General Manager	1	\$ 150,436	\$ 150,436	
Asst. Manager/Engineer	1	128,860	128,860	
Finance Manager/Treasurer	1	108,370	108,370	
Administrative Assistant	1	77,018	77,018	
Accounts Receivable	1	63,365	63,365	
Accounts Payable/Payroll	1	63,365	63,365	
Accounting Clerk	0.5	22,838	22,838	
Commissioners		25,000	25,000	
Construction Engineer	1	93,642		\$ 93,642
Engineering Tech/Safety Officer	1	77,018		77,018
Utility Systems Specialist	1	69,861		69,861
Water Treatment Plant Operator	1	80,873		80,873
Maintenance Supervisor	1	98,317		98,317
Maintenance Worker 2	4.5	310,842		310,842
Maintenance Worker 1	1	51,854		51,854
Maintenance Electrician	1	89,137		89,137
Overtime		40,000		40,000
Stand-By		40,000		40,000
Sub-Totals	18	\$1,590,796	\$ 639,252	\$ 951,544
Social Security		\$ 121,696	\$ 48,903	\$ 72,793
PERS		196,038	76,904	119,133
Unemployment		6,175	2,275	3,900
Worker's Comp (L&I)		27,066	5,046	22,020
Medical/Dental Benefits		299,934	123,274	176,660
Def Comp Match		21,937	8,346	13,591
Sick Leave Buy Out		4,594	2,982	1,612
Longevity		1,920		1,920
HRA VEBA		5,400	2,100	3,300
Sub-Totals		\$ 684,760	\$ 269,830	\$ 414,929
GRAND TOTALS		<u>\$2,275,556</u>	<u>\$ 909,082</u>	<u>\$ 1,366,473</u>



## LAKE WHATCOM WATER AND SEWER DISTRICT

### AGENDA BILL

DATE SUBMITTED:	December 20, 2016		
TO BOARD OF COMMISSIONERS			
FROM: Patrick Sorensen	MANAGER APPROVAL 		
MEETING AGENDA DATE:	December 28, 2016		
AGENDA ITEM NUMBER:	5.B.		
SUBJECT:	Non-union Staff COLA for 2017		
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL: _____	1.		
	2.		
	3.		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL/ OTHER <input type="checkbox"/>

#### **BACKGROUND / EXPLANATION OF IMPACT**

Traditionally the non-represented employees have received the same annual COLA increase as the represented (union) employees. Non-union employees include the District Engineer/Assistant General Manager, Finance Manager/Treasurer, General Manager, Administrative Assistant and the Maintenance Supervisor. For 2017 the represented employee's COLA will be 2.4%.

#### **FISCAL IMPACT**

Based upon the proposed 2.4% COLA increase for the five non-represented employees the cost is \$13,195.36. This amount like the COLA for the represented employees is allowed for in the 2017 Budget.

#### **RECOMMENDED BOARD ACTION**

That the five non-represented employees receive the same COLA increase for 2017 as the represented employees will receive, which is 2.4%.

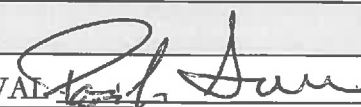
#### **PROPOSED MOTION**

To authorize a 2.4% COLA for the five non-represented employees, effective January 1, 2017.



## LAKE WHATCOM WATER AND SEWER DISTRICT

### AGENDA BILL

DATE SUBMITTED:	December 19, 2016		
TO BOARD OF COMMISSIONERS			
FROM: Bill Hunter and Staff	MANAGER APPROVAL 		
MEETING AGENDA DATE:	December 28, 2016		
AGENDA ITEM NUMBER:	5.C.		
SUBJECT:	Summary of Existing District Projects		
LIST DOCUMENTS PROVIDED ⇒	1. December 2016 Summary of Existing District Projects		
NUMBER OF PAGES	2.		
INCLUDING AGENDA BILL:	3.		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input type="checkbox"/>	INFORMATIONAL/ OTHER <input checked="" type="checkbox"/>

#### **BACKGROUND / EXPLANATION OF IMPACT**

Staff presentation of Summary of Existing District Projects and priorities.

#### **FISCAL IMPACT**

Not applicable at this time.

#### **RECOMMENDED BOARD ACTION**

Review and discuss

#### **PROPOSED MOTION**

Not applicable at this time.

# LAKE WHATCOM WATER AND SEWER DISTRICT

## Summary of Existing District Projects

Meeting Date	Effective Date		Prepared by	
December 28, 2016	December 20, 2016		LE/BH	
Status of Water and System Capacities				
	South Shore ID# 95910	Eagleridge ID #08118	Agate Heights ID# 52957	Johnson Well ID# 04782
DOH Approved #	3935	85	54	2
Connected ERUs	3807	68	44	2
Remaining Capacity (ERUs)	128	17	10	0
Commitments – Not yet connected				
Permitted ERUs Under Construction	10	0	0	0
Pre-paid Connection Certificates and Expired Permits	11	2	5	0
Water Availabilities (trailing 12 months)	17	0	0	0
Subtotal	38	2	5	0
Available ERUs	90	15	5	0

<b>**Completed Capital Projects in 2016**</b>	
C1207	Reservoir Overflow Drains to Daylight
C1402	Geneva Area A/C Mains
C1405	Strawberry Point Sewer Pump Station Improvements
C1412	Facility Improvements
C1502	Sudden Valley Water Treatment Plant Spare Acidification Unit
C1503	SVWTP Clear well Overflow
C1505	Reservoir Seismic Vulnerability Assessment
C1601	General Engineering Services
C1602	Asset Management System Upgrade
C1609	Sudden Valley Sewer Pump Station Emergency Repairs
C1604a	LWB/Airport Isolation Valve
C1604b	Detention Basin Gate Valve Extension
C1608	SVCA Culvert Replacements

<b>**State Required Report Status**</b>								
Reporting	Name of Report & Preparer	Completed						When Due
MONTHLY	Chlorination Report Agate Heights (Kevin)	Jan	Feb	Mar	Apr	May	June	Postmarked by 10 <sup>th</sup> of month
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
		July	Aug	Sept	Oct	Nov	Dec	
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Surface Water Treatment Rule Report (SVWTP) (Kevin)	Jan	Feb	Mar	Apr	May	June	Postmarked by 10 <sup>th</sup> of month
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
ANNUALLY	Department of Revenue (Debi)	Jan	Feb	Mar	Apr	May	June	Due end of following month
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
		July	Aug	Sept	Oct	Nov	Dec	
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Community Right to Know (Hazardous Materials) (Rich)	January 25, 2016						Due by March 31st
	WA State Cross Connection Report (Rich)	May 5, 2016						Due Annually May

Reporting	Name of Report & Preparer	Completed						When Due
MONTHLY	Chlorination Report Agate Heights (Kevin)	Jan	Feb	Mar	Apr	May	June	Postmarked by 10 <sup>th</sup> of month
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	OSHA 300 Log (Rich)	July	Aug	Sept	Oct	Nov	Dec	Due by Feb 1st
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Completed January 27, 2016

<b>**State Required Report Status**</b>			
Reporting	Name of Report & Preparer	Completed	When Due
ANNUALLY	Water Use Efficiency Performance Report (Kevin)	June 30, 2016	Due by July 1st
	Consumer Confidence Reports (Kevin)	May 2016	<ul style="list-style-type: none"> <li>• Geneva- 5/16</li> <li>• Sudden Valley 5/16</li> <li>• Eagleridge – 5/16</li> <li>• Agate Hghts – 5/16</li> </ul>
	Hazardous Waste Activity Report (Rich)	February 29, 2016	Due by March 31st
	Report Number of Sewer ERUs to City of Bellingham	Completed 1/15/2016	Due by January 15th
OTHER	CPR/First Aid Training (Rich)	Completed 6/10/2015	Due Biennially Next Due 2017
	Flagging Card Training (Rich)	Completed 8/3/2016	Due Triennially Next Due 2019

## SAFETY PROGRAM SUMMARY

*Completed by Rich Munson*

Summary of Annual Safety Training					
	Enrollments	Completions	% Complete		
Engineering - Managers	34	34	100%		
Engineering - Staff	19	19	100%		
Field Crew	182	182	100%		
Field Crew - Managers	26	26	100%		
Office Managers	20	11	55%		
Office - Staff	48	48	100%		
Weekly Crew Safety Meetings					
Safety meetings for the field crew take place every Tuesday or Wednesday at 5:00 p.m.					
Dates of Safety Committee Meetings					
January 14, 2016		October 13, 2016			
February 11, 2016		November 15, 2016			
March 9, 2016		December 15, 2016			
April 11, 2016					
May 12, 2016					
June 9, 2016					
Summary of Work-Related Injuries & Illnesses					
Year		2016	2015	2014	2013
Total Number of Work Related Injuries Defined as a work related injury or illness that results in:		0	1	1	11
• Death					
• Medical treatment beyond first aid					
• Loss of consciousness					
• Significant injury or illness diagnosed by a licensed health care professional					

<ul style="list-style-type: none"> <li>Days away from work (off work)</li> <li>Restricted work or job transfer</li> </ul>				
<b>Total Number of Work Related Injuries</b> Defined as a work related injury or illness that results in: <ul style="list-style-type: none"> <li>Death</li> <li>Medical treatment beyond first aid</li> <li>Loss of consciousness</li> <li>Significant injury or illness diagnosed by a licensed health care professional</li> <li>Days away from work (off work)</li> <li>Restricted work or job transfer</li> </ul>	0	1	1	11
<b>Total Number of Days of Job Transfer or Restriction</b> (Light duty or other medical restriction)	0	0	0	5
<b>Total Number of Days Away From Work</b> (At home, in hospital, not at work)	0	0	0	13
<b>Near misses</b>	0			

### **Developer Extension Agreements**

<b>D1601</b>	<b>Geneva Woods Developer Extension Agreement</b>		
<b>SCOPE</b>	Water and sewer improvements for 6 water and sewer connections.		
<b>SIGN DATE</b>	7/27/2016	<b>EXPIRATION DATE</b>	7/27/2019
<b>Prior to Commencing Construction</b>		<b>Prior to Final Acceptance</b>	
<input type="checkbox"/> 1. District Engineer approves design <input type="checkbox"/> 2. Reimbursement of District Engineer review costs <input type="checkbox"/> 3. Copy of insurance policy <input type="checkbox"/> 4. Pay guarantee deposit <input type="checkbox"/> 5. Copies of recorded easement <input type="checkbox"/> 6. Copies of permits <input type="checkbox"/> 7. Pay conformance deposit <input type="checkbox"/> 8. Payment and performance bond <input type="checkbox"/> 9. Pay 25% general facilities fees <input type="checkbox"/> 10. Pays initial facilities inspection deposit <input type="checkbox"/> 11. District issue Notice to Proceed w/Construction		<input type="checkbox"/> 1. District inspects & approves facilities as complete. <input type="checkbox"/> 2. Record drawings <input type="checkbox"/> 3. Easements and title insurance <input type="checkbox"/> 4. Maintenance Bond <input type="checkbox"/> 5. Bill of Sale <input type="checkbox"/> 6. Latecomers Fees <input type="checkbox"/> 7. Supplemental, processing, or administrative fees <input type="checkbox"/> 8. Deliver water meters to District	
<b>Tasks/Notes:</b>			
<ul style="list-style-type: none"> <li>4/11/2016 Board approves DEA Application for 5 lots.</li> <li>4/14/2016 District Legal Counsel reviewing master developer extension agreement prior to delivering to the developer.</li> <li>5/25/2016 Board approved addition of 6<sup>th</sup> lot to DEA. Staff and Legal Counsel preparing DEA documents.</li> <li>7/14/2016 Plans received from developer.</li> <li>7/28/2016 DEA executed and recorded at Auditor's office</li> <li>7/28/2016 Plans transmitted to Wilson for review and comment.</li> <li>8/1/2016 Wilson completed fire flow analysis – no issues. About 3030 GPM fire flow available after improvements.</li> <li>8/16/2016 District received revised plans from developer.</li> <li>8/17/2016 Wilson reviews plans and requests copy of proposed easements for review.</li> <li>8/22/2016 District returns plan review comments and easement comments to developer.</li> <li>9/7/2016 Draft easements are good to record. Returned originals to developer for recording.</li> </ul>			

# Lake Whatcom Water & Sewer District Capital Improvement Projects Staff Report

## C1214 Dead End Blow Offs

*Install blow offs at water main dead ends.*

### 01 Administration

- 11/28/2012 Crews researching and inspecting dead end mains. Compiling list of dead ends with proposed installation sketches.
- 1/5/2016 Staff and field crew researched, compiled, and prioritized a list of approximately 32 sites that need modifications. The top 15 sites are scheduled and budgeted to be completed in 2016. Work will be performed by District crews.
- 3/1/2016 Installation of fire hydrant storz adapters in vicinity of Geneva School complete.
- 8/9/2016 Crews completed work at 2 locations. (Alder Ct. and Arrow Root Pl.)

## C1306 LLR Sewer Air-Vac Valve Replacement

*Replace iron/steel air-vac valves with nylon valves.*

### 01 Administration

- 4/3/2013 Staff solicited quotes from local suppliers. Ordered and received 9 valves from HD Supply (low quote). There are a total of 14 valves on the force main. Remaining 5 valves will be budgeted and purchased in 2014. Crews will begin installing new valves this spring.
- 10/2/2013 Crews have replaced a couple valves that failed on other forcemains using this inventory.

## C1401 Division 22 Reservoir

*Add new Division 22 Reservoir. Funded by DWSRF Loan. Loan Amount = \$994,850 at 1.5% for 20 years + 4 years for construction.*

### 04 Predesign and Permitting

- 10/2/2013 DWSRF loan contract will be executed by State on 10/8/2013. Staff will work with Grey and Osborne to prepare scope of work and fee. Scope/fee will be presented to Board tentatively at 11/13/2013 meeting for review/approval.
- 11/6/2013 Loan contract is executed. Execution date was 10/9/2013.
- 1/29/2014 Board approved scope of work and fee for Predesign work.
- 2/4/2014 Staff and G&O compiling AE agreement and exhibits for execution.
- 3/6/2014 Signed AE agreements received from consultant. District attorney doing final review. Agreements will then be executed by Patrick.
- 4/1/2014 G&O and staff had project kick-off meeting. G&O compiling list of information/data to begin predesign work. Topo survey will begin in a couple weeks.
- 5/7/2014 Consultant has performed topographic/boundary survey. Staff compiling water system data needed for consultants predesign work.
- 8/5/2014 G&O working on reservoir sizing after receiving water system data/info from staff. DOH cultural review in progress.
- 8/23/2014 Published Notice to the Public of Intent to Request Release of Funds in Bellingham Herald. This is required as part of the cultural review process. Have to wait 30 days before beginning test pits or geotechnical borings.
- 9/23/2014 Predesign progress meeting with G&O and District staff. Staff reviewed first 3 chapters of predesign report. G&O will update few minor items and continue final predesign tasks. Set goal to present predesign report to at 1st Board meeting in November.
- 3/3/2015 Staff provided G&O remaining data and info in February to complete the predesign report. G&O is scheduled to make a presentation to the Board at the 3/25/2015 meeting.



- 3/25/2015 G&O presented predesign report to board. There was overall consensus with the plan. Staff and G&O will proceed with permitting and coordination with SCVA.
- 4/30/2015 District submitted pre-application meeting packet to Whatcom County. Pre-App meeting scheduled for 11am on 5/21/2015.
- 5/21/2015 Pre-Application Meeting at Whatcom County - 11am. District and G&O attended. Reviewed permitting requirements with County staff.
- 6/1/2015 Received County's Pre-Application Meeting Findings. Staff and G&O working on Conditional Use Permit application. Staff will coordinate with County for onsite critical areas review (look for wetlands).
- 7/1/2015 Received comments from DOH on project report. G&O and staff will respond to comments. G&O and staff are working on the conditional use permit application.
- 7/29/2015 Conditional Use Permit and Variance Permit applications submitted to Whatcom County.
- 8/4/2015 Staff working with G&O on scope of work for next project phase - detailed design, plans, specs, estimates, and bidding.
- 9/2/2015 Whatcom County is processing Condition Use and Variance Permit application.
- 9/2/2015 G&O working to address DOH project report comments.
- 10/8/2015 County still processing CUP and Variance permits. G&O is working with State DOH to address minor comments on pre-design report.
- 12/9/2015 Hearing for CUP and Variance at 130pm in County Council Chambers.
- 12/30/2015 A Memorandum in Support of CUP and Variance Applications and a Declaration by G&O were submitted to the Whatcom County Hearing Examiner. The documents were prepared by Bob Carmichael with assistance from G&O and District staff.

#### **07 Design thru Bidding**

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- 9/30/2015 2nd Advertisement for Bids published in Bellingham Herald and Seattle DJC
- 11/3/2015 G&O working on updated construction cost estimates and steel vs concrete technical memorandum.
- 11/24/2015 Technical memo review at Board meeting. Verified steel reservoir as original decided in the pre-design report is still the preferred alternative.
- 12/2/2015 G&O working on detailed design and plans.
- 1/5/2016 G&O continues development of detailed plans and specs.
- 2/5/2016 50% plan review with G&O and District staff/crew.
- 2/25/2016 G&O submitted revised pre-design report with updated ERU tables and responses to DOH review comments. G&O working on detailed plans and specs.
- 3/29/2016 90% plan and spec review done. Plans submitted to DOH for review. G&O working on final documents.
- 3/31/2016 Conference call with DOH indicates pre-design report for requested capacity will be approved. DOH is working on approval letter.
- 4/6/2016 G&O working on final documents. Pending completion of Commerce Dept and DOH reviews, bid advertisement dates will be set.
- 5/5/2016 1st Advertisement for Bids published in Bellingham Herald and Seattle DJC
- 5/12/2016 Advertisement for Bids published in Bellingham Herald and Seattle DJC
- 5/18/2016 Pre-bid meeting 10am
- 6/2/2016 Bid Opening 11am
- 6/8/2016 Tentative Contract Award at Board Meeting

#### **10 Construction**

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- 8/8/2016 Contractor has begun construction work. Trees have been cut. Timber will be delivered to Sudden Valley. Contractor will remove stumps this week.
- 9/8/2016 Contractor has excavated down to footing subgrade. Geotechnical engineer reviewed site conditions. Contractor working on ring-wall footings.
- 10/17/2016 Concrete ring wall and asphalt floor pad complete. Contractor beginning to layout steel floor panels.
- 11/21/2016 Contractor is close to finishing steel work and welding.
- 12/21/2016 Tank structure fabrication and welding is done. Next task is interior coatings.

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*Replace rotophase with VFD.*

#### **01 Administration**

- |           |   |
|-----------|---|
| 1/5/2015  | Staff obtaining quotes for VFD's from vendor. District electrician reviewing electrical panel space requirements and proposed VFD dimensions. |
| 1/22/2015 | VFD's received by District. District crew will install in pump station.   |

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### **C1504 Reservoir Site Security**

*Install site security system as 1 reservoir site. Pilot project to evaluate equipment, configuration, and telemetry options.*

#### **01 Administration**

- |            |   |
|------------|---|
| 5/4/2015   | District staff have done initial research on available security camera systems and motion detection. List of equipment and options is in development. Initial pilot site will be the SVWTP.         |
| 12/21/2016 | Staff ordered equipment. Should arrive soon. Equipment will be installed at SVWTP. Motion detection from camera system will be integrated into SCADA system for alarm monitoring by District crews. |

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### **C1506B 2015 Sewer System Rehab**

*Recurring annual project that aims to rehabilitate or replace aging sewer system mains and manholes, and search for inflow and infiltration. Work includes smoke testing, manhole and main repairs.  
C1506B = Whatcom Falls Manhole.*

#### **01 Administration**

- |           |   |
|-----------|---|
| 3/19/2015 | Staff, Wilson, and City of Bellingham met onsite to review project objectives. The manhole located near the entrance of Whatcom Fall park is severely corroded by H2S from the District LLRI outfall. The manole is made of brick and need to be replaced.                                      |
| 3/26/2015 | District executes task order with Wilson to assist with developing detailed plans and notes for the manhole replacement. District staff will advertise, and contract the work, as well as perform contract administration. Wilson will provide technical assistance/submittal review as needed. |
| 3/31/2015 | Staff working on a solution to get old-Flat Car sewer pump station going. Flow must be diverted from the LLRI in order to install the new manhole at Whatcom Falls park later this summer.  |
| 4/1/2015  | Wilson proceeding with topo and manhole structure survey and design.  |
| 5/4/2015  | District staff, Wilson, and City have been coordinating for replacement of Whatcom Falls Park manhole replacement.  |
| 8/4/2015  | Wilson finalizing plans, details, and notes for submittal to City of Bellingham for review and approval.  |
| 9/2/2015  | Bellingham is requiring formal project submittal for review. Staff and Wilson are preparing application and documents for submittal to City. Project will not be ready for construction this year.  |
| 1/5/2016  | District staff working with City operations Department to review manhole rehabilitation plans and specs.  |
| 4/6/2016  | Wilson is refining design to accomodate temporary bypass pumping that will be needed during construction.   |
| 4/18/2016 | Plans have been accepted by City and are in review.   |

#### **10 Construction**

- 8/9/2016 Contractor is building pre-cast manhole. Submittals are in progress. Work tentativley to begin later half of August.
- 9/8/2016 New manhole has been installed. New District forcemain alignment has been installed. Contractor working on backfilling excavation and site restoration.
- 10/6/2016 Punch list inspection with City, District, and Contractor. Two minor items noted: Contractor needs to redo the asphalt patch and regrade around manhole rim to accommodate City mowers.
- 11/21/2016 Last two punch list items are schedule for week of November 28.
- 12/21/2016 District received notice from City that all punch list items have been completed to their satisfaction.

## **C1603 Marina-Tomb Stationary Generator**

*Install stationary emergency backup generator to serve both Marina and Tomb sewer pump stations.*

### **01 Administration**

- 4/5/2016 Issued purchase order to RH2 to assist District with sizing and selecting stationary generator from GSA. Scope also includes PLC programming to incorporation generator alarms.
- 4/6/2016 Staff coordinating with SVCA on site requirements, landscaping, screening, etc.
- 4/12/2016 District staff met onsite with SVCA staff to coordinate location, siting, and screening of stationary generator.
- 4/28/2016 RH2 finished sizing generator. Recommended generator size is 100kw. District staff is selecting generator, components, and options for purchase through GSA.
- 6/2/2016 Staff finalizing generator options and quote with GSA vendor.
- 8/4/2016 Generator and transfer switch ordered. Scheduled arrive in about 2 months.
- 10/10/2016 Generator delivered to site.
- 10/18/2016 Staff obtained permit from County for concrete slab. Crews installed transfer switch on electrical rack. Crews preparing to start on excavation and concrete forms.
- 11/21/2016 Underground electrical work done, auto-transfer switch installed, concrete slab has been poured and is curing. District crews plan to set generator on slab week of November 28.
- 12/21/2016 Generator has been installed on slab. Site work has been stabilized for winter. District crews working on completing electrical wiring and startup of generator.

## **C1605 Water System Plan Update**

*Update District's Water System Plan. Current edition expires 3-15-2017.*

### **01 Administration**

- 4/6/2016 Selection of consultant is part of the general engineering services RFQ.

- 5/3/2016 State DOH would like to meet with the District and consultant to coordinate the water system plan update prior to beginning work. The intent is to coordinate the scope of work for the plan update.
- 8/16/2016 Meeting with Wilson and DOH to coordination scope of work. Wilson developing scope and fee for task order.
- 9/8/2016 Wilson developed scope of work after coordination with District staff and DOH. Scope/fee will be present at next board meeting for approval.
- 9/20/2016 Task Order with Wilson Engineering executed. Wilson will start work soon.

## **C1606 Replace SCADA Workstation Hardware**

*Replace computer hardware the runs SCADA system at shop and SVWTP.*

### **01 Administration**

- 2/4/2016 Hardware has been ordered and received. Staff working on configuration and setup of new hardware.
- 2/29/2016 Integration of the 1st of 4 replacement computers is done. Staff is in process of integrating other machines.

## **C1607 Northshore Water Quality Sampling**

*Water quality sampling plan to evaluate impact of existing onsite sewage disposal system at the end of Northshore road.*

### **01 Administration**

- 3/30/2016 Request for Proposals advertised in Seattle Daily Journal of Commerce
- 4/28/2016 Request for Proposal advertised in Seattle Daily Journal of Commerce
- 5/1/2016 Request for Proposals advertised in Bellingham Herald
- 5/24/2016 Proposals due 4pm. Received one proposal.
- 7/27/2016 Agreement with consultant has been executed.
- 9/8/2016 Staff received preliminary draft plan from consultant and will share with board
- 10/3/2016 Workshop with County and City to review draft sampling plan.
- 10/19/2016 Consultant working on sampling plan revisions based on workshop comments with City and County.
- 11/21/2016 Consultant will start sampling during next good rain event.

## **C1610 Little Strawberry Water Leak on Bridge**

*Water main has small leak. Leak is in a section of main that is mounted to a bridge on Little Strawberry.*

### **01 Administration**

4/6/2016 Staff evaluating alternatives to get within reach of pipe to find and repair leak.

## **C1611 Country Club Sewer Pump Station**

*Rehabilitation of Country Club Sewer Pump Station.*

### **01 Administration**

4/6/2016 Selection of consultant is in conjunction with general engineering services RFQ.

8/9/2016 Staff working with BHC to develop scope of work

9/8/2016 AE agreement finalized and being routed for execution. Scope/fee was approved by board on 8/31/2016. Work to begin as soon as agreement is executed.

11/2/2016 District attended Center Condo Owner's Association board meeting to present and coordinate the project. Association gave District needed letter of authorization to pursue Whatcom County permits for construction - of either option (pump station or direction drill).

12/21/2016 AE Agreement Amendment being routed for execution that includes scope for geotech test borings to determine directional drilling feasibility. BHC and GeoEngineers are scheduling work and preparing permit applications.

### **02 Predesign**

10/11/2016 Held predesign meeting with BHC and District staff. BHC beginning preliminary design.

11/21/2016 Staff and BHC working on scope amendment to investigate horizontal direction drilling as the primary option. This option has the potential to eliminate the need for the pump station.

### **03 Permitting**

10/20/2016 Pre-Application meeting with Whatcom County to review anticipated permitting requirements.

11/7/2016 District and GeoEngineers met with Whatcom County Critical Areas Biologist to review potential critical areas.

## **C1612 Cedar Hills Water Main Relocate**

*Relocate water main for Whatcom County. County is installing stormwater treatment systems to remove phosphorus.*

### **01 Administration**

4/6/2016 Staff coordinating with County and Wilson to relocate water main to accommodate stormwater treatment system.

5/3/2016 District working with County to execute an interlocal agreement to establish cost sharing terms. Agreement will be similar to recent Cable Street reconstruction project.

5/25/2016 Board authorizes interlocal agreement with County and fund project using the storm/sewer contingency fund.

6/2/2016 Staff coordinating with County and Wilson as needed.

#### 10 Construction

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8/9/2016 Water utility relocated are done. County contractor is now working on the storm water filter systems.

9/8/2016 Contractor still working on stormwater facilities.

11/21/2016 County's construction appears complete. District waiting for invoice from County.

### C1613 Northshore Water System Consolidation

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*DOH water system consolidation feasibility grant to explore opportunity to consolidate small water systems.*

#### 01 Administration

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4/6/2016 District received notice that grant funding was approved for the feasibility study. Staff coordinating with DOH for grant contracts.

8/9/2016 Staff working with Wilson on a task order scope of work.

9/8/2016 Task order scope/fee approved by board on 8/31/2016. Once task order has been executed, Wilson will begin work.

10/19/2016 Wilson working on study.

12/15/2016 Staff met with Wilson to review conceptual designs, options, and costs. Staff gave Wilson feedback for them to continue with the feasibility study.

**Number of Projects      14**



## LAKE WHATCOM WATER AND SEWER DISTRICT

### AGENDA BILL

DATE SUBMITTED:	December 19, 2016		
TO BOARD OF COMMISSIONERS			
FROM: Bill Hunter	MANAGER APPROVAL <i>Paul Hunter</i>		
MEETING AGENDA DATE:	December 28, 2016		
AGENDA ITEM NUMBER:	5.D.		
SUBJECT:	Capital Improvement Project List		
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL: _____	1. Capital Improvement Project List		
	2.		
	3.		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input type="checkbox"/>	INFORMATIONAL/ OTHER <input checked="" type="checkbox"/>

### **BACKGROUND / EXPLANATION OF IMPACT**

At the December 14, 2016 meeting, the Board asked for more information regarding future and unfunded capital improvement projects that are beyond the 6-year Capital Improvement Plan (CIP) presented in the 2017 budget.

Attached is a Capital Improvement Project List. They are unscheduled projects, meaning the projects have not been assigned a target year for construction or a specific funding source. The District funds most projects by rate revenue at approximately \$1.1 million per year. Larger project funding has historically been through low-interest state loans, revenue bonds, grants, and utility local improvement districts.

Note the "Business Risk Exposure" column on the right. The District is utilizing this asset management concept to compare the relative importance of a project to all other District projects. It is a scale from 100 (having the most risk) to 1 (having the least risk).

Staff utilizes this list several different ways:

1. Each year during budget preparation, all projects are discussed with engineering, maintenance and operations staff to assess project importance and priority relative to all other projects.
2. During water and sewer comprehensive plan updates, larger projects are scheduled and included these plans.

**FISCAL IMPACT**

None.

**RECOMMENDED BOARD ACTION**

None.

**PROPOSED MOTION**

None.





# Capital Improvement Project List

## Unscheduled Projects

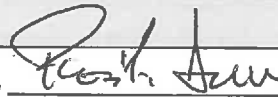
CIP #	Project Name	Cost Est in Year \$		Business Risk Exposure
Both Water and Sewer				
0169	Centimeter-Grade GPS Receiver	\$15,000.00	in 2015	1
0167	Front Loader with Forks to Replace Old Backhoe	\$100,000.00	in 2016	1
0134	Kubota Jack Hammer Attachment (need to get quote)	\$10,000.00	in 2016	1
0168	Genie Lift T250 - Trailer Mounted	\$30,000.00	in 2015	1
0143	Public Art at Cable Street (need to develop scope/fee and see if Board is interested)	\$10,000.00	in 2016	1
0142	Upgrade Shop Security Cameras and Coverage	\$15,000.00	in 2016	1
0100	Car-Port Along Fence to Cover District Vehicles/Equipment	\$250,000.00	in 2012	1
	Subtotal	\$430,000.00		
Sewer System				
0124	Rehabilitate Old Flat Car Sewer Pump Station - Construction	\$75,000.00	in 2015	42
0151	Pigging - Lake Whatcom Boulevard Interceptor	\$50,000.00	in 2016	21
0152	Pigging - Lake Louise Road Interceptor	\$40,000.00	in 2016	21
0153	Pigging - Cable Street Force Main	\$35,000.00	in 2016	21
0171	Sudden Valley Sewer Pump Station - Recondition Electrical Controls	\$150,000.00	in 0	18
0154	Pigging - Plum Basin Gravity Outlet at Lake Whatcom Boulevard Interceptor	\$20,000.00	in 2016	18
0172	Flat Car Sewer Pump Station - Recondition Electrical Controls	\$150,000.00	in 0	16
0173	Beaver Sewer Pump Station- Recondition Electrical Controls	\$150,000.00	in 0	16
0160	Sudden Valley Sewer Pump Station - Recondition Drywell Pumps and Motors	\$20,000.00	in 2016	14
0170	Telemetry-SCADA Reconfiguration between Beaver and Flat Car	\$25,000.00	in 2015	14
0162	Lowe Sewer Pump Station - Retrofit Overhead Power to Underground Power	\$50,000.00	in 2016	12
0156	Austin Sewer Pump Station - Install Ball Check Valves and Flow Meter	\$15,000.00	in 2016	12
0155	Lake Whatcom Boulevard - Replace ~200LF at Gravity Outlet	\$50,000.00	in 2016	9
0158	Airport Sewer Pump Station - Stationary Generator	\$40,000.00	in 2016	9
0159	Airport Sewer Pump Station - Increase Pump Capacity (higher head pumps)	\$30,000.00	in 2016	4
	Subtotal	\$900,000.00		
Water System				
0146	1971 Division 22 0.5MG Reservoir Seismic Retrofit - Priority 3	\$367,000.00	in 2016	70
0144	1992 SVWTP 0.235MG Chlorine Contact Tank Seismic Retrofit - Priority 2	\$156,000.00	in 2016	70
0145	1971 Division 7 1.0MG Reservoir Seismic Retrofit - Priority 1	\$721,000.00	in 2016	70
0147	1973 Division 30 0.15MG Reservoir Seismic Retrofit - Priority 4	\$541,000.00	in 2016	60
0148	1979 Geneva 0.5MG Reservoir Seismic Retrofit - Priority 5	\$505,000.00	in 2016	50
0084	Agate Heights Treatment Plant Additional Capacity	\$485,000.00	in 2013	40
0164	1010 Lakeview Street - Demo Old Concrete Reservoir	\$100,000.00	in 2016	30
0110	Security - Intrusion Alarms at Reserviors, Cameras as SVWTP AHWTP	\$10,000.00	in 2015	18
0083	SVWTP - Transfer and Transmission Pump VFD's	\$425,000.00	in 2009	15
0115	Division 7 and Geneva Reservoir Coating and Structural Repairs (Place-Holder. Need to develop cost est.)	\$500,000.00	in 2015	12

CIP #	Project Name	Cost Est in Year \$		Business Risk Exposure
0166	SVWTP - Convert from Chlorine Gas to Liquid	\$100,000.00	in 2016	1
0165	SVWTP - Spare Transfer Pump	\$10,000.00	in 2016	1
0136	Guillotine Pipe Saw for Ductile Iron (need to get quote)	\$10,000.00	in 2016	1
0135	Automatic Valve Exerciser (need to get quote)	\$25,000.00	in 2016	1
		Subtotal	\$3,955,000.00	



## LAKE WHATCOM WATER AND SEWER DISTRICT

### AGENDA BILL

DATE SUBMITTED:	December 19, 2016		
TO BOARD OF COMMISSIONERS			
FROM: Patrick Sorensen	MANAGER APPROVAL 		
MEETING AGENDA DATE:	December 28, 2016		
AGENDA ITEM NUMBER:	7.0		
SUBJECT:	Manager's Report		
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL: _____	1. Manager's Report		
	2.		
	3.		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input type="checkbox"/>	INFORMATIONAL/ OTHER <input checked="" type="checkbox"/>

#### **BACKGROUND / EXPLANATION OF IMPACT**

Updated information from the General Manager in advance of the Board meeting.

#### **FISCAL IMPACT**

None

#### **RECOMMENDED BOARD ACTION**

None required.

#### **PROPOSED MOTION**

None

## **General Manager Comments**

**December 28, 2016**

**Board Meeting**

**8:00 a.m.**

### **Important Upcoming Dates:**

- **Meetings Associated with the Lake Whatcom Management Program:**
  - **Policy Group Meeting:** The next meeting will be held in February 2017. The date and location has not been officially set, though I expect it to be in the same location and at the same time.
  - **Management Meeting:** A meeting between the Mayor, County Executive and the General Manager is scheduled for January 19, 2017 at 1:30 p.m. in City Hall. The topic will be to reconcile city, county, and district budgets as they relate to our responsibilities for Lake Whatcom. We will also be addressing the potential for City and County participation in the District's North Shore water testing project.
- **Next Regular Board Meeting:** The next regular meeting will be held on **Wednesday, January 11, 2017** at 6:30 p.m.
- **Employee Staff Meeting:** The next staff meeting is set for **Thursday, January 12, 2017** at **8:00 a.m.** in the Board Room. Commissioner Carter is scheduled to attend this meeting.
- **Employee Safety Committee Meeting:** The next meeting is set for **January 12, 2017** at **9:00 a.m.** in the small conference room.
- **Washington Association of Sewer & Water Districts (WASWD) Section III Meeting:** The next Section III meeting will be held at Bob's Burger & Brew in Tulalip off I-5 at **6:15 p.m.** on **January 10, 2017**.
- **Whatcom Water District's Caucus Meeting:** The next Caucus meeting is set for **January 18, 2017** at 1:00 p.m. in the Board Room.

### **Other:**

- **Committee Meeting Reports as Needed:** This is a place holder for Board and staff members to report on recent committee meetings, such as the Lake Whatcom Policy Group, since the last Board Meeting.
- **2017 Commissioners Workshop:** The Washington Association of Sewer & Water District's 2017 Commissioner's Workshop is scheduled for Saturday February 4, 2017 in Lynwood at the Embassy Suites. This is an all-day activity. A copy of the announcement is attached along with a link to the agenda and topics. Please let either Lyn or I know if you are interested in attending.