



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

REGULAR MEETING
OF THE BOARD OF COMMISSIONERS

AGENDA

May 14, 2014

6:30 p.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. Rate Study Discussion
 - B. Monthly Budget Analysis
 - C. Summary of Existing District Projects
 - D. Adoption of 2014 Sewer Comprehensive Plan Update – Resolution 805
6. OTHER BUSINESS
7. MANAGER'S REPORT
8. PUBLIC COMMENT OPPORTUNITY
9. ADJOURNMENT



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	May 6, 2014
TO BOARD OF COMMISSIONERS	
FROM: Patrick Sorensen	MANAGER APPROVAL _____
MEETING AGENDA DATE:	May 14, 2014
AGENDA ITEM NUMBER:	5.A.
SUBJECT:	Rate Study Discussion
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL:	1. 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 April 30, 2014 meeting, FCS Group presented its District Rate Study Report. Following the presentation and discussion the Board agreed to follow-up on a handful of important next step policy issues brought up through the report. These questions are really the critical path that the Board needs to address so that the rate study can go forth.

SUMMARY

There are two sets of questions or policy issues that need addressed. Those listed under "1" are the most immediate in order for the consultant to move forward. They are as follows:

1.

- Creation of a low-income senior/disabled rate. Staff is putting together information on discounted rates used by other districts and cities and will have that information available at the meeting.
- Lowering the base water allocation from 600 cf. to 400 cf. Staff is verifying the potential number of accounts impacted and will have information available at the meeting.
- Rate Design alternatives & high usage charge. Following discussion at the April 30th meeting alternatives "D" and "E" were removed from consideration. Alternatives "A", "B", and "C" were retained for additional discussion. In addition, a hybrid alternative

“C+” was also included for consideration of high water usage, such as everything over 2,000 cf.

Within the report the consultant recommended alternative “C” for water. This includes a low-income senior/disabled rate and a lowered usage allowance of 400 cf. Likewise, the consultant recommended alternative “B” for sewer. This also included a low-income senior/disabled discount rate. In their proposal both the low-income senior/disabled water and sewer rates are discounted at 50%. Again, staff is verifying potential impacts financially, and will have information available at the meeting.

For future discussion are two additional policy questions:

2.

- Separating from an accounting standpoint the sewer and water utilities from each other.
- Establishing a higher fund reserve for the water utility.

FISCAL IMPACT

The potential fiscal impacts for all of the scenarios as developed by FCS Group are provided within the report you were given at the last meeting. The report can also be found on our web site. I have also emailed you a copy of the report.

RECOMMENDED BOARD ACTION

For discussion only.

PROPOSED MOTION

Not required at this time.



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	May 6, 2014		
TO BOARD OF COMMISSIONERS			
FROM: Debi Hill	MANAGER APPROVAL <i>Debi Hill</i>		
MEETING AGENDA DATE:	May 14, 2014		
AGENDA ITEM NUMBER:	5.B.		
SUBJECT:	Monthly Budget Analysis		
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL:	1. Monthly Budget Analysis as of 4/30/2014		
	2.		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input type="checkbox"/>	INFORMATIONAL/ OTHER <input checked="" type="checkbox"/>

BACKGROUND / EXPLANATION OF IMPACT

Information only

FISCAL IMPACT

n/a

RECOMMENDED BOARD ACTION

n/a

PROPOSED MOTION

n/a



MONTHLY BUDGET ANALYSIS

Description		2014 Budget	YTD 4/30/2014 33%	
OPERATING FUND - 401				
REVENUES				
401-343-40-10	Water Sales Metered (9% rate increase) *	1,701,326	536,570	32%
401-343-50-11	Sewer Service Residential (3% rate increase) *	3,537,394	1,139,075	32%
401-343-50-19	Sewer Service Other (Multi units)	9,500	2,091	22%
401-343-81-10	Combined Fees (Locks, Liens, Transfers, Suspensions)	33,000	9,500	29%
401-359-90-00	Late Charges	65,000	21,271	33%
401-361-11-00	Investment Interest	200	27	14%
401-369-10-00	Sale of scrap/junk recycle	-	6,430	
401-369-90-00	Bank Fees	3,000	1,047	35%
401-379-10-20	Permits Operation portion (5 new connection permits)	10,000	9,070	91%
401-398-20-00	Insurance Recoveries			
401-397-10-40	Transfers in from ULID 18 Fund 480	83,000	37,000	45%
TOTAL REVENUES		5,442,420	1,762,081	32.4%

MONTHLY BUDGET ANALYSIS			2014	YTD	
	Description		Budget	4/30/2014	
OPERATING FUND - 401				33%	
401-53X-10-10	Payroll (1% cola plus step increases - 2014)		1,450,000	438,144	30%
401-53X-10-20	Personnel Benefits		570,000	169,377	30%
401-53X-10-31	Gen Admin Supplies		25,000	7,750	31%
401-53X-10-32	Meetings/Team building		2,500	820	33%
401-53X-10-40	Bank Fees (BofA, AFTS, Expect)		9,500	3,669	39%
	Interlocal - Lake Whatcom Management Program		25,000		
	Interlocal - Invasive Species		50,000		
	Interlocal - Lake Whatcom Tributary Monitor		5,000		
401-534-10-41-00	Water Quality Assurance Programs (TOTAL)		80,000	4,171	
	County Auditor filing fees (Simplifile)		6,000		
	DataBar (Statement processing)		20,000		
	Answering Service		1,500		
	BIAS Financial Software		20,000		
	Webcheck (Title company transactions)		2,000		
	GE Scada System Software Maintenance		7,500		
	WA State Auditor (2 year audit)		18,500		
	Wilson Engineering		10,000		
	Sewer Comp Plan Update C13-15		20,886		
	Legal counsel		38,000		
	FCS Rate Study		48,500		
	3D - Computer support (includes new server install)		30,000		
	Docu Ware annual maint/support		5,000		
	Data Pro - Time clock system		1,500		
	Watchguard		1,000		
	CPA firm		10,000		
	ESRI (ARC GIS)		2,000		
	Cartegraph		8,000		
	SCADA/PLC Support (Engineering)		5,000		
	Auto Desk (Engineering)		1,000		
	Rockwell (Engineering)		500		
	Inovise (Engineering)		2,000		
	Master Meter		2,000		
	Custodial/Building maint. services/Security		11,000		
	Landscaping service		4,000		
	GIS with Whatcom County		1,000		
	Camera Van software		1,500		
	Oasys (Docuware/copy machine contract)		5,000		
	Generator Load Testing		20,000		
	Cyberlock software		1,000		
	Misc (Bid notices etc.)		1,000		
401-53X-10-41-01	Professional Services (TOTAL)		385,386	116,250	30%
401-53X-10-42	Communication		40,000	16,503	41%
401-53X-10-43	Memberships/Dues		18,000	20,152	126%
401-53X-10-44	B&O Taxes		175,000	45,872	26%
401-53X-10-45	Admin Lease		2,500	898	36%
401-53X-10-46	Insurance		102,000	-	0%
401-53X-10-49	Admin Misc.		1,000	576	58%
401-53X-40-43	Training & Travel		30,000	8,124	27%
401-53X-40-44	Tuition reimbursement		6,000	-	0%
401-53X-40-49	Insurance claims		5,000	-	
401-53X-50-31	Maintenance Supplies		145,000	51,276	35%
401-53X-50-48	Oper Repair/Maint (Includes Asset Mgmnt tools)		35,000	13,110	37%
	Edge Analytical - water		7,000		
	Emergency Response - sewer tank trucks		5,000		
401-53X-80-41	Operations Contracted (TOTAL)		12,000	4,794	40%
401-534-60-47	Water Ops City of Bellingham		30,000	9,658	32%
401-535-60-47	Sewer Ops City of Bellingham		800,000	177,282	22%
401-53X-80-32	Operations Fuel		30,000	14,204	47%
401-53X-80-34	Safety supplies		12,000	-	0%
401-53X-80-47	General Utilities		210,000	73,283	35%
401-53X-80-49	Laundry		2,000	622	31%
	TOTAL OPERATING EXPENSES		4,095,886	1,176,535	28.7%
	Transfers Out to Capital Projects Fund 420		900,000	184,000	
	Transfers Out to 2009 Bond Debt Service Fund 450		447,450	106,375	
	Transfers Out to Water Loan Debt Service Fund 470		65,500	-	
	TOTAL EXPENDITURES		5,508,836	1,466,910	26.6%
OPERATING FUND					
	REVENUES		5,442,420	1,762,081	
	EXPENDITURES		(5,508,836)	(1,466,910)	
	BEGINNING BALANCE		500,000	1,073,881	
	CASH/INVESTMENTS BALANCE		433,584	1,356,861	
SYSTEM REINVESTMENT FUND - 420					

MONTHLY BUDGET ANALYSIS	Description		2014	YTD	
			Budget	4/30/2014	
420-343-40-19	DEA Permits		2,500	-	
420-361-11-00	Investment Interest		-		
420-379-10-30	Permits Capital Portion (5 permits for 2012)		40,000	16,896	
420-379-10-40	Latecomer Fees		500		
420-397-10-00	Transfers In from Operating Fund 401		900,000	184,000	
	TOTAL REVENUES		943,000	200,896	
420-534-10-41	DEA Contracted Services		2,500		
420-534-80-41	Contracted Operations		-		
420-534-90-61	DEA Refunds		-		
420-594-38-60	Capital Outlay				
	Previous Projects		231,933		
	C12-07 Reservoir Drains to Daylight	13,000			
	C12-14 Dead end blow offs	37,960			
	C12-16 Polo Park Bridge	49,351		29,063	
	C13-03 SVWTP Generator			81,338	
	C13-04 Cathodic Corrosion protection	75,000			
	C13-08 Backup benchtop analyzer	3,000			
	C13-13 Safety Grates at Pump Stations	9,376		3,262	
	C13-14 Server upgrade	15,000		14,755	
	C13-16 Boulevard Sewer Pump Station	39,246		60,902	
	New Projects		944,000		
	C 13-16 Boulevard Sewer Pump Station	570,000			
	C 14-03 Water System Rehab/Replacement projects	120,000			
	C 14-04 CMOM - Sewer I&I	103,000			
	C 14-05 Strawberry Point Pump Station - Predesign	101,958		2,880	
	C 14-06 Sewer Push Camera	7,000			
	C 14-07 Lowe Pump Station	7,000			
	C 14-08 SVWTP Spare Raw Water Pump	5,000			
	C 14-09 Dehumidifiers	5,000		8,140	
	C 14-10 Water Service Rebuilds	12,000			
	C 14-11 Gravel/Asphalt material bin at shop	5,000			
	C 14-12 Admin building irrigation system	-			
	TOTAL EXPENDITURES		1,178,433	200,340	
SYSTEM REINVESTMENT FUND	REVENUES		943,000	200,896	
	EXPENDITURES		(1,178,433)	(200,340)	
	BEGINNING BALANCE		300,000	0	
	CASH/INVESTMENTS BALANCE		64,567	30	
SEWER/STORM WATER CONTINGENCY FUND - 425					
425-361-11-00	Investment Interest		930		
	TOTAL REVENUES		930	-	
425-535-10-41	Comp Plan Stormwater Chapter		4,821	7,268	
425-535-10-89	Bank Fees		100	48	
425-594-38-64	Machinery/Equipment			1,300	
	TOTAL EXPENDITURES		4,921	8,616	
SEWER/STORM WATER CONTINGENCY FUND	REVENUES		930	-	
	EXPENDITURES		(4,921)	(8,616)	
	BEGINNING BALANCE		933,450	932,970	
	CASH/INVESTMENTS BALANCE		929,459	924,354	
CAPITAL BOND PROJECTS FUND (RESTRICTED) - 430					
430-361-11-00	Investment interest		-		

MONTHLY BUDGET ANALYSIS		Description	2014 Budget	YTD 4/30/2014
		TOTAL REVENUES	-	
430-594-38-63		Capital Outlay	-	
	C09-01	Cable-Ranch-PM Pump stations (Retainage)	57,250	
		TOTAL EXPENDITURES	57,250	-
CAPITAL BOND PROJECTS FUND		REVENUES	-	
		EXPENDITURES	(57,250)	-
		BEGINNING BALANCE	57,250	62,683
		CASH/INVESTMENTS BALANCE		62,683
DWSRF PROJECTS FUND - 440				
440-382-90-31		Division 22 Reservoir		
440-382-90-43		Geneva AC Mains		
		TOTAL REVENUES		-
440-594-34-62	C14-01	Division 22 Reservoir		
440-594-34-63	C14-02	Geneva AC Mains		42,977
		TOTAL EXPENDITURES		42,977
DWSRF PROJECTS FUND		REVENUES		-
		EXPENDITURES		42,977
		BEGINNING BALANCE		
Expenditures offset by draws as projects progress.		CASH/INVESTMENTS BALANCE		(42,977)
2009 BOND DEBT SERVICE FUND - 450				
450-361-11-00		Investment interest		
450-397-10-00		Transfers in from Operating Fund 401	447,450	106,375
		TOTAL REVENUES	447,450	106,375
450-535-10-41		Bond Admin Fee	300	300
450-591-35-72		Redemption of Long Term Debt	235,000	
450-591-35-83		Bond Interest payments	212,150	106,075
		TOTAL EXPENDITURES	447,450	106,375
2009 BOND DEBT SERVICE FUND		REVENUES	447,450	106,375
		EXPENDITURES	(447,450)	(106,375)
		BEGINNING BALANCE	-	-
		CASH/INVESTMENTS BALANCE		
2009 BOND RESERVE FUND (RESTRICTED) - 460				
460-361-11-00		Investment interest	500	
		TOTAL REVENUES	500	-
460-535-10-89		Debt Service Charges	100	48
		TOTAL EXPENDITURES	100	48
2009 BOND RESERVE FUND		REVENUES	500	-
		EXPENDITURES	100	48
		BEGINNING BALANCE	501,170	501,157
		CASH/INVESTMENTS BALANCE	501,770	501,109
WATER LOANS DEBT SERVICE FUND - 470				
470-397-10-00		Transfers In from Operating Fund 401	65,500	

MONTHLY BUDGET ANALYSIS	Description		2014	YTD	
			Budget	4/30/2014	
	TOTAL REVENUES		65,500	-	
470-591-38-79	Redemption of Long Term Debt		56,193		
470-592-34-83	Debt Service Interest Loan 119		715		
470-592-34-83	Debt Service Interest Loan 084		8,505		
	TOTAL EXPENDITURES		65,413	-	
WATER LOANS DEBT SERVICE FUND	REVENUES		65,500	-	
	EXPENDITURES		(65,413)	-	
	BEGINNING BALANCE				
	CASH/INVESTMENTS BALANCE			74	
ULID 18 LOAN DEBT SERVICE FUND (RESTRICTED) - 480					
480-361-50-00	ULID 18 Interest/Penalties		30,000	12,246	
480-368-10-00	Current ULID 18 Principal Payments		50,000	25,913	
480-379-10-30	Latecomers Fee		3,000	-	
	TOTAL REVENUES		83,000	38,159	
480-597-10-01	Transfers Out to Operating Fund 401		83,000	37,000	
	TOTAL EXPENDITURES		83,000	37,000	
ULID 18 LOAN DEBT SERVICE	REVENUES		83,000	38,159	
	EXPENDITURES		(83,000)	(37,000)	
	BEGINNING BALANCE				
	CASH/INVESTMENTS BALANCE			1,159	



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	May 6, 2014		
TO BOARD OF COMMISSIONERS			
FROM: Bill Hunter and Staff	MANAGER APPROVAL <i>Paul A. Jurek</i>		
MEETING AGENDA DATE:	May 14, 2014		
AGENDA ITEM NUMBER:	5.C.		
SUBJECT:	Summary of Existing District Projects		
LIST DOCUMENTS PROVIDED ⇒	1. May 2014 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

Information only

FISCAL IMPACT

n/a

RECOMMENDED BOARD ACTION

Review and discuss

PROPOSED MOTION

n/a

LAKE WHATCOM WATER AND SEWER DISTRICT
Summary of Existing District Projects

Meeting Date	Effective Date	Prepared by
May 14, 2014	May 8, 2014	LE/BH
Status of Water and Sewer Permit Issuance		
SCOPE	Provide a monthly update on permit activity.	
STATUS		Permits Issued 2014
	No of permits issued	5
	No of permits projected 2014	5
		Permits Issued 2013
		16

Completed Capital Projects in 2014	
C1410	Water Service Rebuilds
C1409	Sudden Valley WTP and Agate Heights WTP Dehumidifiers
C1314	Replace Server Hardware
C1313	Safety Grates at Pump Stations
C1211	Wet Well Pressure Transmitters

State Required Report Status									
Reporting	Name of Report & Preparer	Completed						When Due	
MONTHLY	Chlorination Report Agate Heights (Kevin)	Jan	Feb	Mar	Apr	May	June	Postmarked by 10 th of month	
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	July	Aug	Sept	Oct	Nov	Dec	Postmarked by 10 th of month		
	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 th of month	
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
July	Aug	Sept	Oct	Nov	Dec	Due end of following month			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
ANNUALLY	Community Right to Know (Hazardous Materials) (Rich)	Jan	Feb	Mar	Apr	May	June	Due by March 31st	
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	July	Aug	Sept	Oct	Nov	Dec	Due Annually		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	Consumer Confidence Reports (Kevin)	Completed April, 2014						<ul style="list-style-type: none">• Geneva- 4/14• Sudden Valley 4/14• Eagleridge – 4/14• Agate Hghts – 4/14	
Hazardous Waste Activity Report (Rich)	Completed March 3, 2014						Due by March 31st		
OSHA 300 Log (Rich)	Completed January 30, 2014						Due by Feb 28th		
Water Use Efficiency Performance Report (Kevin)	Completed April 2014						Due by July 1st		
Washington State Financial Report (Debi)	Completed May 2014						Due by May 31st		
OTHER	CPR/First Aid Training (Rich)	Completed 12/18/12						Due Biennially Next Due 2014	
	Flagging Card Training (Rich)	Completed 7/22/2013						Due Triennially Next Due 2016	

SAFETY PROGRAM SUMMARY

Completed by Rich Munson

Annual Safety Training				
Staff participates in a local government on-line training system. Each employee is assigned with an individual training course that is relevant to their position. The courses contain check points, quizzes and tests to ensure the training was completed and understood by the employee. Learners can track their progress and manage their training with their workload.				
Weekly Crew Safety Meetings				
Safety meetings for the field crew take place every Tuesday at 3:30 p.m.				
Dates of Safety Committee Meetings				
January 8, 2014				
February 12, 2014				
March 13, 2014				
April 9, 2014				
May				
Summary Of Work-Related Injuries & Illnesses				
Year	2014	2013	2012	2011
Total Number of Work Related Injuries Defined as a work related injury or illness that results in: <ul style="list-style-type: none">• Death• Medical treatment beyond first aid• Loss of consciousness• Significant injury or illness diagnosed by a licensed health care professional• Days away from work (off work)• Restricted work or job transfer	0	11	8	5
Total Number of Days of Job Transfer or Restriction (Light duty or other medical restriction)	0	5	24	0
Total Number of Days Away From Work (At home, in hospital, not at work)	0	13	9	0

Lake Whatcom Water & Sewer District
Capital Improvement Projects Staff Report

C1207 Reservoir Overflow Drains to Daylight

Route reservoir overflow drains to daylight.

C1207-ENG Project Administration and Engineering

4/2/2014 Staff working with G&O to look at overflow/drain line improvements for Division 22 as part of project C1401.

C1207-CON Construction Contract

C1214 Dead End Blow Offs

Install blow offs at water main dead ends.

C1214-CON Construction Contract

C1214-ADM Project Administration

11/28/2012 Crews researching and inspecting dead end mains. Compiling list of dead ends with proposed installation sketches.

C1216 SVCA Polo Park Bridge Water Main

Relocate water main to accomodate new SVCA bridge.

C1216-ENG Project Administration and Engineering

6/4/2012 Wilson made minor adjustments to construction contract documents. Project will be advertised in Bellingham Herald in the next couple days.
6/21/2012 Site visit with staff and Wilson. District staff to install isolation valves in July prior to bridge construction.
11/6/2012 Crews in progress of relocating water services to prepare for installation of isolation valves and thrust blocks.
11/28/2012 Services have been moved and isolation valves installed on the main. Crews will be installing reverse thrust blocks when weather allows this winter. District will be ready for SVCA construction summer 2013.
4/3/2013 SVCA moving ahead with plans to construct summer 2013. Wilson preparing task order for upcoming work/support.
5/1/2013 Wilson made minor adjustments to construction contract documents. Project will be advertised in the next couple days.
5/5/2013 Advertisement for bids. Bellingham Herald legals.
5/21/2013 Bid Opening. 2:05pm.
5/29/2013 Board award contract to Strider Construction.
6/5/2013 Contract agreement, bonds, and insurance are being prepared for execution.

C1216-CON Construction Contract

7/16/2012 Bid opening 2:10pm. Two bids received.
7/31/2012 Bid Opening 2:05pm
8/1/2012 Bid cancelled 7/26/2012. All plan holders were notified 7/27/2012 of cancellation. Cancellation was due to permitting delays on SVCA's project. Project now tentatively scheduled for Summer 2013.
5/5/2013 Advertisement for Bids published in Bellingham Herald
5/21/2013 Bid Opening 2:10pm. Two bids received.
5/29/2013 Award contract to Strider Construction.
7/10/2013 Pre-Construction Meeting
8/7/2013 Contractor working on creek bed and bridge abutment improvements for SVCA. No water main work yet except for isolation and removal of pipe.
10/2/2013 Contractor installed new water main up to the bridge abutments.
11/6/2013 Contractor working on punch list.

- 12/12/2013 Pay request for 90% of contact transmitted to contractor for signature. Punch list was attached to pay request.
- 2/4/2014 No one has heard anything from contractor. Wilson is making phone calls to push project close out.
- 3/6/2014 No word on project closeout status from Wilson or contractor.
- 5/7/2014 No word on project closeout status from Wilson or contractor. Staff requested Wilson press Strider to finish as soon as possible. Next steps are contacting bonding company and review project with Brian Hansen.

C1303 SVWTP Generator

Replace undersized SVWTP natural gas generator with larger diesel unit capable of running treatment plant with two booster pumps on plus Afternoon Beach Sewer Pump Station.

C1303-ENG Project Administration and Engineering

- 1/25/2013 Advertise Request for Proposal in Bellingham Herald. (This request includes 3 other projects: Division 22 Reservoir, Strawberry Point & Boulevard Sewer Pump Stations, and Geneva Area AC Water Main Replacement).
- 2/21/2013 RFP Submittals due 4pm
- 3/5/2013 Tentative notification of short-list for interviews
- 3/12/2013 Tentative interviews
- 3/13/2013 Tentative recommendation to Board
- 4/3/2013 Board selects RH2 as consultant at 3/13/13 meeting. Staff working with RH2 on scope/fee for Phase 1 work which includes pre-design, design, and bidding support services.
- 5/1/2013 RH2 and staff working on predesign report and options.
- 5/7/2013 RH2 will present summary of predesign report. Receive Board comments to finalize report.
- 6/5/2013 RH2 submitted 60% drawings. RH2 and staff are meeting to go through drawings/design. Permit applications will be submitted to County in about a week.
- 7/16/2013 RH2 and District staff review of 90% drawings and specifications.
- 7/23/2013 RH2 completes bid documents. Project advertised in Bellingham Herald.
- 9/4/2013 RH2 assisting staff with construction administration/inspection as needed.
- 4/2/2014 RH2 preparing technical memo to install auto transfer switch for Afternoon Beach PS. Staff will use memo to obtain local quotes from electricians to install the new transfer switch.

C1303-CON Construction Contract

- 7/23/2013 Substantial Completion Date per CO#2
- 7/30/2013 Pre-Bid Meeting.
- 8/6/2013 Bid Opening at 2:05pm. Two bids received.
- 8/14/2013 Tentative Construction Contract Award at Board Meeting.
- 9/4/2013 Contract, bond, & insurance forms received from contractor. Brian Hansen reviewing and will sign "As to Form" followed by Board president signature. Staff plans to issue Notice to Proceed week of 9/9/2013.
- 10/2/2013 Contractor onsite. Concrete slab for tank poured, exterior underground electrical conduits installed. Contractor preparing to remove generator from building.
- 11/6/2013 New transfer switch and generator installed inside building. Contractor working on electrical wiring and exhaust piping. Exterior site work nearly complete. Contractor waiting for fuel tank delivery.
- 12/4/2013 Work continues. District will execute no-cost change order to extend contract 37 days due to fuel tank manufacturer delays at no fault of contractor.
- 1/2/2014 Work continues. New fuel tank has been installed.
- 2/4/2014 Contractor still has work to complete to reach Substantial Completion. Staff and RH2 scheduled meeting with contractor on 2/5/2014 to discuss unfinished work and project schedule. Brian Hansen has been briefed.
- 2/14/2014 Contractor obtains Substantial Completion. Generator put into use by District.
- 3/5/2014 Generator training by Cummins
- 3/6/2014 Contractor working on last few items to achive final completion.
- 3/26/2014 Board accepts the construction contract with Legacy as complete. Staff preparing project close out paperwork.

C1304 Steel Reservoir Cathodic Protection

Install cathodic protection systems in District's steel reservoirs: Geneva, Div 30, Div 22, Div 7, & SVWTP Contact Tank.

C1304-ADM Project Administration and Engineering

- 2/6/2013 Staff writing contract documents and specifications.
- 10/2/2013 Staff finalizing bid/contract documents.
- 10/14/2013 Tentative Advertisement for Bids in Bellingham Herald.
- 10/29/2013 Bid Opening - 2pm. Two bids were received.
- 11/13/2013 Recommend Board reject all bids and rebid project due to unclear specifications regarding two different types of systems (vertical and horizontal systems).
- 12/4/2013 Staff refining specifications for re-bid in February/March 2014.

C1306 LLR Sewer Air-Vac Valve Replacement

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

C1306-ADM Project 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.

C1315 Sewer Comprehensive Plan Update

The District is required to update its Sewer Comprehensive Plan every six years. The last update was completed in September 2007 and conditionally approved by the Department of Ecology February 29, 2008.

C1315-PH1 Sewer Comprehensive Plan Update

- 3/6/2013 Staff and Wilson working on Task Order scope of work.
- 3/20/2013 Wilson Task Order executed. Wilson and staff beginning work on sewer comp plan update.
- 5/1/2013 Wilson working on comp plan. Staff supplying data/support as needed.
- 8/7/2013 Work in progress.
- 9/4/2013 Work in progress.
- 10/2/2013 Work in progress. First draft will tentatively be distributed to Board for review at October 30th Board meeting.
- 10/30/2013 Internal draft copy distributed to Board and Staff.
- 1/8/2014 Review internal draft at Board meeting.
- 2/4/2014 Board reviewing draft plan. Small manageable sections discussed/reviewed each Board meeting until full document covered.
- 3/6/2014 Board continues to review sections of the comp plan each meeting. Almost done with internal review.
- 3/26/2014 Tentative. Publish SEPA DNS after implementing Board/Staff review comments.
- 4/9/2014 Tentative. Board to approve plan. Publish for agency review. County Health and Engineering Departments have 60 days, County Council has 90 days, State DOE has ?? days to submit review comments.
- 5/7/2014 Wilson has address DOE and County agency comments. Board will formally approve comp plan at 5/14/2014 meeting. Almost done.

C1315-PH2 Stormwater Chapter

- 3/6/2013 Staff and Wilson working on Task Order scope of work.
- 3/20/2013 Wilson Task Order executed. Wilson beginning work on stormwater chapter.
- 5/1/2013 Wilson preparing agenda and questions for Board workshop tentatively schedule for sometime in June 2013.
- 6/18/2013 Board workshop meeting scheduled for 5pm 6/18/2013 to discuss stormwater options/goals.
- 8/7/2013 Wilson finalizing stormwater chapter per Board discuss on 6/18/2013.
- 9/4/2013 Wilson submitted final stormwater chapter. Included in 9/11/2013 meeting packet for discussion.
- 2/12/2014 Board reviewed stormwater chapter. Wilson will compile final changes into sewer comp plan.

C1316 Boulevard Sewer Pump Station

Replace Boulevard Sewer Pump Station.

C1316-PH1 Predesign

- 9/11/2013 Board approves predesign scope of work for RH2.
- 10/1/2013 District received signed agreements from RH2. Need District attorney and GM signatures for execution. RH2 beginning predesign work.
- 10/30/2013 Staff met with RH2 to review data collected so far and discuss options to include in pre-design report. RH2 is scheduling a pre-application meeting with County - time/date to be determined.
- 11/6/2013 RH2 working on pre-design report. Draft will be ready for staff review in about 2 weeks.
- 12/4/2013 RH2 will present draft pre-design report at 12/11/2013 Board Meeting.
- 12/19/2013 RH2 and staff met with Whatcom County for permit pre-application meeting. No surprises in regards to permitting requirements.
- 1/22/2014 District staff and RH2 met with two neighboring property owners to discuss project and any concerns they might have. We did learn that stormwater (both groundwater and surface runoff) have been a challenge in that area. RH2 updated and finalized predesign report with neighbor comments/concerns.
- 2/4/2014 District staff and RH2 working on scope of work and fee estimate for design phase. Scope/fee will be discussed at 2/12/2014 Board meeting.
- 4/23/2014 Substantial Shoreline Development Permit Public Hearing 130pm at Whatcom County Council Chambers. Shoreline permit was approved.
- 5/7/2017 RH2 pursuing minor misc County permits for project.

C1316-PH2 Design & Bidding

- 2/12/2014 Board authorized phase 2 work - design and bidding.
- 3/6/2014 RH2 working on detailed plans and specifications.
- 3/26/2014 RH2 and District crew review 60% complete drawings. RH2 continuing detailed design incorporating District comments.
- 5/7/2014 District reviewed 90% plans and specs. RH2 finishing design and bid documents.
- 5/9/2014 Advertisement for Bids in Bellingham Herald
- 5/14/2014 Non Mandatory Prebid Meeting
- 5/22/2014 Bid Opening 205pm.
- 5/28/2014 Tentative - Award Construction Contract at Board Meeting.

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.

C1401-PH1 Predesign

- 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.

C1402 Geneva Area AC Mains

Replacement of AC water mains in Geneva area. Funded by DWSRF Loan. Loan Amount = \$2,398,750 at 1.5% for 20 years + 4 years for construction.

C1402-PH1 Predesign

- 10/2/2013 DWSRF loan contracts will be executed by State on 10/8/2013. Staff working with Wilson Engineering to develop scope of work and fee. Scope/fee will tentatively be presented to Board at 11/13/2013 meeting.
- 11/6/2013 Loan contract is executed. Execution date was 10/7/2013.
- 12/4/2013 Staff working with Wilson to develop Scope of Work and Fee that includes DWSRF loan contract requirements. Scope/Fee will be presented at 12/11/2013 Board Meeting for approval.
- 12/11/2013 Board authorized GM to execute agreement with Wilson.
- 1/2/2014 AE agreement executed. Work includes predesign, permitting, topographic surveying, design, and bidding.

- 1/7/2014 Site walk-thru with District staff and Wilson engineers and surveyors.
- 1/9/2014 Conference call with DWSRF project manager, Cathy Brockmann. Key District and Wilson staff attended. Meeting covered basic loan contract requirements and setup coordination between parties.
- 2/4/2014 Wilson preparing preliminary drawings for conceptual water main locations/design. Topographic surveying to follow, when desired alignments are identified.
- 3/6/2014 Wilson performing preliminary engineering and topographic surveying.
- 4/2/2014 Wilson continues preliminary engineering and topo surveying work.
- 4/22/2014 Wilson and District staff meet to coordinate project activities. Topographic surveying and predesign work is in full swing.

C1403 2014 Water System Rehab and Replacement

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.

- C1403-ADM**
- 1/2/2014 Staff compiling list of water assets for rehab and/or replacement.
- C1403-CON**

C1404 2014 Sewer System Rehab and Replacement

- C1404-CON**
- C1404-ADM**
- 1/2/2014 Staff compiling list of assets for rehab and/or replacement.
- 4/24/2014 Advertisement sent to Bham Herald
- 4/27/2014 Advertisement in Bham Herald
- 5/5/2014 Pre-Bid Meeting
- 5/15/2014 Bid Opening
- 5/28/2014 Tentative - Award Construction Contract at Board Meeting.

C1405 Strawberry Pt. Sewer PS Improvements

Replace Strawberry Point Sewer Pump Station.

- C1405-PH1 Predesign**
- 2/4/2014 Staff and RH2 working on scope of work and fee estimate. Scope/fee will be on the 2/12/2014 Board meeting agenda.
- 2/12/2014 Board authorizes phase 1 - predesign work.
- 2/26/2014 Board authoizes a revision to phase 1 not-to-exceed amount.
- 3/6/2014 Signed AE agreements received from consultant. District attorney doing final review. Agreements will then be executed by Patrick.
- 3/6/2014 Staff collecting technical information for RH2 to begin preliminary design.
- 4/2/2014 RH2 reviewing pump station run time data for last couple years. Staff to provide detailed on/off data for selected key dates.
- 5/7/2014 Topographic survey is done. RH2 continuing predesign work.

C1406 Sewer Push Camera for 2" and 4" Pipe

Procure sewer push camera for small diameter pipe.

- C1406-ADM**

C1407 **Low Sewer PS VFD**
Replace rotophase with VFD.
C1407-ADM

C1408 **SVWTP Spare Raw Water Pump VFD**
Procure spare VFD for SVWTP raw water pump.
C1408-ADM

C1411 **Shop Gravel/Asph Mat'l Bin Improvements**
Add concrete slab and vertical row of concrete ecology blocks to gravel/asphalt material bins located as shop.
C1411-ADM

C1412 **Admin Building Irrigation System**
Install irrigation system at Admin Building.
C1412-ADM
4/2/2014 Staff obtaining quotes from landscape companies for installation of irrigation system.



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	May 7, 2014		
TO BOARD OF COMMISSIONERS			
FROM: Patrick Sorensen	MANAGER APPROVAL <i>Patrick Sorensen</i>		
MEETING AGENDA DATE:	May 14, 2014		
AGENDA ITEM NUMBER:	5.D.		
SUBJECT:	Adoption of 2014 Sewer Comprehensive Plan Update – Resolution 805		
LIST DOCUMENTS PROVIDED ⇒ NUMBER OF PAGES INCLUDING AGENDA BILL:	1. Replacement Pages		
	2. Resolution #805		
	3.		
TYPE OF ACTION REQUESTED	RESOLUTION <input checked="" type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL/ OTHER <input type="checkbox"/>

BACKGROUND / EXPLANATION OF IMPACT

The District’s Sewer Comprehensive Plan Update has been reviewed and comments have been received from Whatcom County Health, Whatcom County Engineering and Department of Ecology. District legal counsel has also reviewed and approved of the changes suggested by the reviewing agencies and incorporated into the replacement pages, attached. Resolution 805 adopts the 2014 Sewer Comprehensive Plan Update.

NOTE: PLEASE BRING YOUR COPY OF THE SEWER COMPREHENSIVE PLAN TO THE MEETING.

FISCAL IMPACT

No impacts at this time.

RECOMMENDED BOARD ACTION

Review and discuss the amended pages. Adopt Resolution 805.

PROPOSED MOTION

To adopt Resolution 805 updating the District’s Sewer Comprehensive Plan as presented.

Consulting Engineer's Brief Sheet

(Melanie Mankamyer)

Prepared May 8, 2014 for May 14, 2014 Commissioner's Meeting

Adoption of Final Comprehensive Sewer Plan

Background

The Board approved the Comprehensive Sewer Plan for distribution and Agency Review at the March 26, 2014 Regular Meeting. We sent the Plan to the Department of Ecology (DOE), Whatcom County Health Department, Whatcom County Engineering and Whatcom County Planning. We received approvals from WC Health and WC Engineering (conditional approval). We received comments from DOE and Whatcom County Planning.

We have made minor changes and corrected typographical errors. The "change pages" are attached. A list of the items changed is below.

With the incorporation of these change pages, **we request that the Board formally adopt the Comprehensive Sewer Plan (see Resolution 805).** We will then submit the final Plan to Whatcom County Council for their approval. We will also submit the change pages to DOE and request their approval of the final Plan, and submit the change pages and supplemental details to WC Engineering and request their approval without conditions.

Summary of Changes:

- (a) Cover - changed March to May.
- (b) Title page - added my PE stamp and signature; changed March to May.
- (c) Page 1 - changed formatting to accommodate additional text on Page 2.
- (d) Page 2 - revised/combined two paragraphs at the end of Section I.A.3 to incorporate references to the County's Comp Plan goals; cleaned up the reference to the District's position that septic systems should not be allowed in the watershed where there is already de facto urban-level densities.
- (e) Page 9, Table 4 - reformatted Whatcom County Projections column so "households" are on the same line as service connections.
- (f) Page 13 - corrected connection numbers to match Table 7.
- (g) Page 14, Table 7 - corrected LWWSD ERUs and population estimates (some values were from Table 4); reformatted Whatcom County Projections column so "households" are on the same line as service connections.
- (h) Page 20 - changed referenced Master Fees and Charges Item from 42 to 43.
- (i) Page 37 - changed text from "which in turn increases..." to "which in turn limits the decrease in..."
- (j) Exhibits B-1 to B-4 - added flow direction arrows to figures.
- (k) Exhibit D Hydraulic Model - fixed typo on page 5, peaking factor of 3.0 for > 500 ERU was used (not 3.5).
- (l) Exhibit G - insert recording page and signature page for COB-District Sewer Contract.

LAKE WHATCOM WATER AND SEWER DISTRICT

RESOLUTION 805

A Resolution of the Board of Commissioners Adopting
the 2014 Sewer Comprehensive Plan Update

WHEREAS, RCW 57.16.010 and RCW 90.48.110 require the District to adopt and periodically update a comprehensive plan for sewer services within its jurisdiction, and

WHEREAS, the District has retained the engineering firm of Wilson Engineering, L.L.C. to prepare a proposed revision of the District's sewer comprehensive plan, and several drafts of a proposed plan have been prepared by the engineers and reviewed by the Board at various public meetings during the past year, and

WHEREAS, a SEPA environmental checklist was prepared and the District SEPA official made a Determination of Non-significance, and

WHEREAS, notice of said Determination of Non-significance was mailed to all required agencies and was published in the Bellingham Herald on March 28, 2014 and no comments were received within the time published for said comment period; now therefore

BE IT RESOLVED THAT:

The attached final draft of the comprehensive plan for the provision of sewer services for Lake Whatcom Water and Sewer District, including a capital construction and improvement plan, is hereby accepted by Lake Whatcom Water and Sewer District.

ADOPTED by the Board of Commissioners of Lake Whatcom Water and Sewer District, Whatcom County, Washington, at a regular meeting thereof held this 14th day of May, 2014.

Leslie Mc Roberts, Board President

Todd Citron, Board Secretary

Deborah Lambert, Commissioner

John W. Millar, Commissioner

Laura Weide, Commissioner

LAKE WHATCOM WATER AND SEWER DISTRICT

1220 Lakeway Drive
Bellingham, Washington 98229

COMPREHENSIVE SEWER PLAN 2014 UPDATE



BOARD OF COMMISSIONERS:

Leslie McRoberts, President
Todd Citron, Secretary
Deb Kingsley-Lambert, Commissioner
John (Ian) Millar, Commissioner
Laura Weide, Commissioner

Patrick Sorensen, General Manager

Prepared By:
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805 Dupont Street, Suite #7
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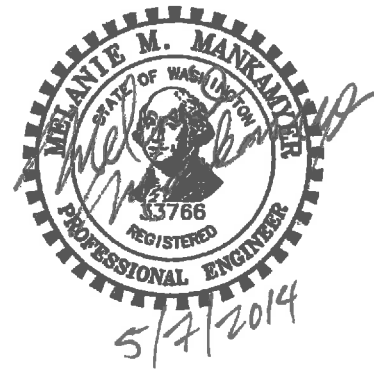


May 2014

LAKE WHATCOM WATER AND SEWER DISTRICT

1220 Lakeway Drive
Bellingham, Washington 98229

COMPREHENSIVE SEWER PLAN 2014 UPDATE



BOARD OF COMMISSIONERS:

Leslie McRoberts, President
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Patrick Sorensen, General Manager

Prepared By:
WILSON ENGINEERING, L.L.C.
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May 2014

I. BACKGROUND

A. Scope and Objective of Update

1. General

This updated Comprehensive Sewer Plan for Lake Whatcom Water and Sewer District (District) has been prepared at the request of the District Board of Commissioners and in accordance with the Washington State Department of Ecology (DOE) guidelines as presented in WAC 173-240-50.

2. Scope and Objective

The purpose of this report is to provide a comprehensive overview of the existing sewage installations and treatment facilities operated and maintained by Lake Whatcom Water and Sewer District. In addition, this report addresses potential future facilities development and projected population growth.

This report will cover the following topics:

- system owner/operator information,
- sewer system layout including a description of the existing system boundaries,
- description of existing collection facilities including recently completed improvements,
- discussion of development trends within sewer district boundaries,
- discussion of existing and future collection and treatment issues such as existing and future sewer flows, and infiltration/inflow (I&I),
- discussion of sewer rate structure and revenue planning,
- discussion of present and future development alternatives within the district boundaries,
- outline of future improvement projects within the District.

3. Overview of Growth Management Implications on this Sewer Plan Update

This update of the Comprehensive Sewer Plan for Lake Whatcom Water and Sewer District seeks to comply with the Whatcom County Comprehensive Plan and the requirements of the Growth Management Act (GMA). The primary reasons for Lake Whatcom Water and Sewer District to update its plan at this time are:

- to ensure compliance with RCW requiring regular updates,
- to incorporate capital improvements made in the last several years,
- to outline and update the District's Capital Improvement Plan, and
- to ensure the District's ability to set and collect appropriate General Facilities Charges (i.e. connection charges) and sewer service charges for all District facilities.

Lake Whatcom Water and Sewer District owns and operates wastewater facilities in unincorporated Whatcom County. The District boundary includes the area around Lake Whatcom that is not part of the City of Bellingham. The District operates collection systems

BACKGROUND

on both the north and south shore of Lake Whatcom and now has twenty-seven sewer pump stations, all located in Whatcom County.

Whatcom County is the land-use planning and permitting authority for the District area. Whatcom County Comprehensive Plan Policy 5T-1 is to "Discourage extension of sewer lines in areas not designated as urban growth areas or Rural Communities, except in those limited circumstances shown to be necessary to protect basic public health and safety and the environment and when such services are financially supportable at rural densities and do not permit urban development" (see also Policy 2EE-4). Although not presently permitted under GMA or by its current comprehensive plan, Whatcom County previously approved development and lot creation at urban densities around Lake Whatcom, both inside and outside of what are now designated as UGAs and LAMIRDs. This Comprehensive Sewer Plan endeavors to be consistent with the provisions contained in the Whatcom County Comprehensive Plan. However, the forecasting included in this Plan is based on the District's judgment that, where such residential development already exists or is permitted under previous Whatcom County subdivision and development approvals, these urban-density properties should be connected to public sewers and on-site septic systems (OSS) should not be allowed.

B. System Owner/Operator Information

1. District Office Location and Governing Information

The sewer collection facilities covered in this report are owned and operated by:

Lake Whatcom Water and Sewer District (formerly Whatcom County Water District 10)
1220 Lakeway Drive
Bellingham, Washington 98229
(360) 734-9224 – Office Telephone
(360) 738-8250 – Office Fax

The District is administered by a five-person Board of Commissioners (Board) who are each elected to six (6) year terms. This Board meets twice monthly and holds special sessions as the need arises.

2. District Operations Information

The District is responsible for planning, construction, operation and maintenance of all public sewer facilities within the District's boundaries around Lake Whatcom, Washington. In addition, the District is responsible for operation and maintenance of a 10-inch force main and a 12-inch force main operating between the District's existing collection system and the City of Bellingham's collection system for transport to the City's Wastewater Treatment Plant. The operations and maintenance of the District's facilities is overseen by the General Manager who works with a support staff consisting of an Assistant General Manager/Engineer, Finance Manager, Administrative Assistant and five other office administrative staff members. The field crew consists of an additional nine employees. The District contracts for legal counsel, consulting engineers, and auditors. The District operates out of their office at 1220 Lakeway Drive, and their maintenance facility at 1010 Lakeview Street, Bellingham, Washington.

EXISTING FACILITIES

development for twenty-five years (ending in 2028). Properties not included in the UGAs but abutting the benefit area and the project improvements were allowed to “opt-in”. Of the 1,100 parcels originally restricted, approximately 915 are “vacant” per recent Whatcom County assessor data. This reduction is likely due to lot consolidations. Of the 915, 697 are owned by Sudden Valley Community Association (SVCA) and 629 have been permanently restricted and/or converted to green space. That leaves a pool of 286 vested properties that could potentially be developed starting in 2028. However, we estimate that a number of these restrictions are “permanent” (e.g. shorelands, or conversion to open space). These numbers should be revisited and possibly adjusted as the restriction period draws to an end in 2028. See Table 4 below.

We estimate that there are approximately 800 ULID 18 - assessments on vacant parcels within the Sudden Valley-Geneva Collection System boundaries. Based on the annual average metered wastewater flows, design standards and a peak wastewater flow calculated using a peaking factor, Sudden Valley-Geneva Collection System is projected to have the following average and peak daily flows within the District boundaries:

Table 4: Sudden Valley-Geneva Study Area – Population / Flow Projections

Study Area: Sudden Valley / Geneva	LWWSD Existing (2012)	Whatcom County Projections Year-2029	LWWSD Projections 20 years – 2032 (@7 ERU/year*)	LWWSD Projections Full build-out **
Equivalent Residential Units ERUs*	3,842	Households:	3982	4810
(Service connections)	(3,541)	3,664	(3681)	(4509)
Population Estimate (2.6 residents per service)	9,207	9,742 (@ 2.66 persons /household)	9,571	11,724
Projected Average Daily Flow based on:				
(a) Flow Meter Average - 195 GPD per ERU	749,190 GPD	714,480 GPD	776,490 GPD	937,950 GPD
(b) Design Standard - 100 GPD per person (260 GPD per ERU)	920,700 GPD	974,200 GPD	957,100 GPD	1,172,380 GPD
Projected Peak Daily Flow based on:				
(a) Flow Meter Average x 2.5 Peaking Factor	1,301 gpm	1,241 gpm	1,348 gpm	1,628 gpm
(b) Design Standard x 2.5 Peaking Factor	1,598 gpm	1,691 gpm	1,662 gpm	2,035 gpm

* assumed that all future growth; 1 connection = 1 ERU. No large user growth anticipated.

** reduction includes only permanently restricted lots.

It should be noted that the population and connection projections used for this report will not exactly match projections made by the City of Bellingham or Whatcom County, primarily because the sewer service area boundaries are different than the sum of the UGA and Sudden Valley areas. In addition, sewer planning analyses typically “round up” when determining

EXISTING FACILITIES

c) Existing Wastewater Flows

As of November 2012, the District provides sewer service to approximately 336 properties within the North Shore Collection System. All residential service connections are un-metered and based upon a usage assessment of one (1) equivalent residential unit (ERU) per connection. The non-residential connections (residential treatment center) are charged based on the number of equivalent residential units the facility represents, as determined by the Uniform Plumbing Code fixture count method. The number of ERUs served by the District within the North Shore Collection System is 366 (November 2012). Based on data from June 2011 – November 2012, monthly influent flows through the meters from the North Shore Collection System have averaged 2.2 million gallons per month, or about 78,500 gallons per day. Based upon a 28-day month, this means that the average daily flow per existing ERU is approximately 219 gallons per day including inflow and infiltration, or 88 gpcd (at 2.5 residents per ERU). The same data set yields an average minimum daily flow per existing ERU of approximately 93 gallons per day, or 37 gpcd, and an average maximum daily flow per existing ERU of approximately 308 gallons per day, or 123 gpcd. See Table 7 below.

The District's contract with the City of Bellingham specifies a maximum flow rate which is discussed in detail in Section D City of Bellingham Wastewater Treatment Plant - 1. Wastewater Treatment Agreement. The District operates within those contract limits.

d) Future Projected Wastewater Flows

Continuing efforts by Whatcom County and the City of Bellingham have substantially reduced the potential density and developable land in the North Shore service area from what had been envisioned when the sewer collector system was designed. The County has down-zoned the area to a 5-acre minimum parcel size for any new subdivision of property. The City previously purchased and permanently restricted about 190 acres previously zoned as R2A from future development, eliminating 95 units. Additionally, a vested subdivision (North Shore Estates) most recently proposed at 28 lots was recently purchased and restricted by the City. There have also been other land purchases and restrictions by the City and others in the North Shore service area.

We estimate that there are approximately 150-200 potential additional connections to the North Shore Collection System for an estimated 509 connections (545 ERUs) at build-out. These potential additional connections largely consist of existing residential development served by on-site septic systems and previously created lots suitable for residential development under current land use regulations.

We calculated the projected wastewater flows two ways – using the North Shore flow meter data and using industry-standard rates. These numbers are presented below as a range of projected flows for the North Shore Collection System. The lower number is based on the metered data and assumes an average daily wastewater flow per ERU of 219 gallons and a peak daily wastewater flow per ERU of 548 gallons (2.5 times average daily flow). The upper number assumes 100 gallons

EXISTING FACILITIES

per day per person, and 2.5 persons per ERU for an average daily wastewater flow of 250 gallons per connection. A peaking factor of 2.5 was also used for this calculation. The twenty-year projection is based on a growth rate of 3 ERU/year, which is conservative based on the actual growth of recent years. See Table 7 below.

Table 7: North Shore Study Area – Population / Flow Projections

Study Area: North Shore	LWWSD Existing (2012)	Whatcom County Projections Year-2029	LWWSD Projections 20 years – 2032 (@3 ERU/year*)	LWWSD Projections Full build-out
Equivalent Residential Units ERUs*	366		424	545
(Service connections)	(336)	Households: 388	(394)	(509)
Population Estimate (2.5 residents per ERU**)	915	970 (@ 2.5 persons /household)	985	1,300
Projected Average Daily Flow based on:				
(a) Flow Meter Average - 219 GPD per ERU	78,621 GPD	84,972 GPD	92,856 GPD	119,355 GPD
(b) Design Standard - 100 GPD per person (250 GPD per ERU)	83,500 GPD	97,000 GPD	106,000 GPD	136,300 GPD
Projected Peak Daily Flow based on:				
(a) Flow Meter Average x 2.5 Peaking Factor	139 gpm	147 gpm	161 gpm	207 gpm
(b) Design Standard x 2.5 Peaking Factor	159 gpm	168 gpm	184 gpm	237 gpm

* Agate Bay Mobile Estates may increase from 21 to 25 ERUs.

** Used ERUs instead of connections to account for populations of Lake Whatcom Residential Treatment Center and Agate Bay Mobile Estates.

It should be noted that the population and connection projections used for this report will not exactly match projections made by the City of Bellingham or Whatcom County, primarily because the North Shore sewer service area boundaries are very different than the rural watershed area. In addition, sewer planning analyses typically “round up” when determining potential connections to avoid future capacity issues, while the City’s Annual Build-out Analysis always “rounds down”.

e) Hydraulic Modeling

Hydraulic modeling of the North Shore collection system trunk main was performed to evaluate capacity during peak hourly wet weather flow conditions. The physical model network consisted of the Agate Bay Pump Station, North Shore force main and gravity main trunks to the North Shore meter. More details regarding the hydraulic modeling are included in the attached Hydraulic Analysis Technical Memorandum (Exhibit D).

Existing conditions average daily sewer loads were calculated based on District connection/ERU data, 2010 U.S. Census Bureau household size data for Whatcom

SEWER RATE STRUCTURE AND REVENUE PLANNING

B. Revenue Planning

The District performs a review of the sewer rate schedule regularly to determine that these charges are sufficient to generate revenue to offset the cost of all necessary operation and maintenance of the District. In the event that this review indicates a necessary revision of user charges, the District promptly amends the rates by formal resolution of the board of commissioners.

In 2010, the District commissioned a water and sewer rate study to examine the District's rate structures. The purpose of the study was to provide recommendations regarding water and sewer rate adjustments aimed at bringing revenues in line with annual operating and capital obligations while utilizing surplus cash reserved in the District's general and capital funds. The sewer rate study recommended increases of 3% per year implemented over 5 years (starting in 2011).

Additionally, recommendations regarding the general facilities charge (GFC) to be charged to customers connecting to the system were prepared and adopted by the Board for implementation in January 2011.

Recommendations from this 2010 rate study were implemented by the District and are reflected in the sewer rate information presented in the next section. The District is in the process of updating the Rate Study.

C. Sewer Rate Structure

The District sewer service rates and charges outlined below shall be subject to change by resolution of the board of directors as conditions warrant.

1. Sewer Service Rates

The District bills bi-monthly for sewer service. The calculation of bi-monthly sewer charges is based on the assigned number of equivalent residential units (ERUs) for a particular customer.

Reference Exhibit I for a tabulation of the sewer rates in the current Master Fees and Charges Schedule for the District. Also included in this resolution are the rate adjustment schedules, through the year 2015, as recommended in the 2010 sewer rate study commissioned by the District.

2. General Facilities Connection Fee (GFC)

The District assesses \$5,201 per ERU for the General Facilities Connection Fee as listed in Item 43 of the Master Fees and Charges Schedule. Additional fees such as Latecomer fees may also apply. The District also charges fees for permit processing and inspection in accordance with the current Master Fees and Charges Schedule.

The Master Fees and Charges Schedule is incorporated here by reference. The current schedule is included in Exhibit I.

STORMWATER & WATER QUALITY MANAGEMENT

- oversight and inspection programs related to both private stormwater facilities and onsite sewage disposal,
- implementation of planned stormwater treatment CIPs identified in Whatcom County's *Lake Whatcom Comprehensive Stormwater Plan*,
- compliance with Ecology Phase II permit requirements, and/or
- many other stormwater and water quality related projects and programs.

d) Habitat Protection

Not only is Lake Whatcom the sole source for water consumption by residents living near the lake and throughout the City, but it also provides crucial habitat to fish in the lake, downstream of the lake in Whatcom Creek, and also for the Whatcom Falls Fish Hatchery. A healthy fish population provides enjoyment to sport fishers in addition to contributing to the overall health of the lake ecosystem.

DOE [2008] released water quality study findings for Lake Whatcom that go into great detail to describe the effect of reduced levels of dissolved oxygen and the correlated phosphorus levels on water quality and aquatic organisms.

"The health of fish and other aquatic species depends on maintaining an adequate supply of oxygen dissolved in the water. Growth rates, swimming ability, susceptibility to disease, and the relative ability to endure other environmental stressors and pollutants are all affected by dissolved oxygen levels" [Pickett and Hood, 2008].

Reduction of phosphorus will also limit algal growth, which in turn limits the decrease dissolved oxygen levels.

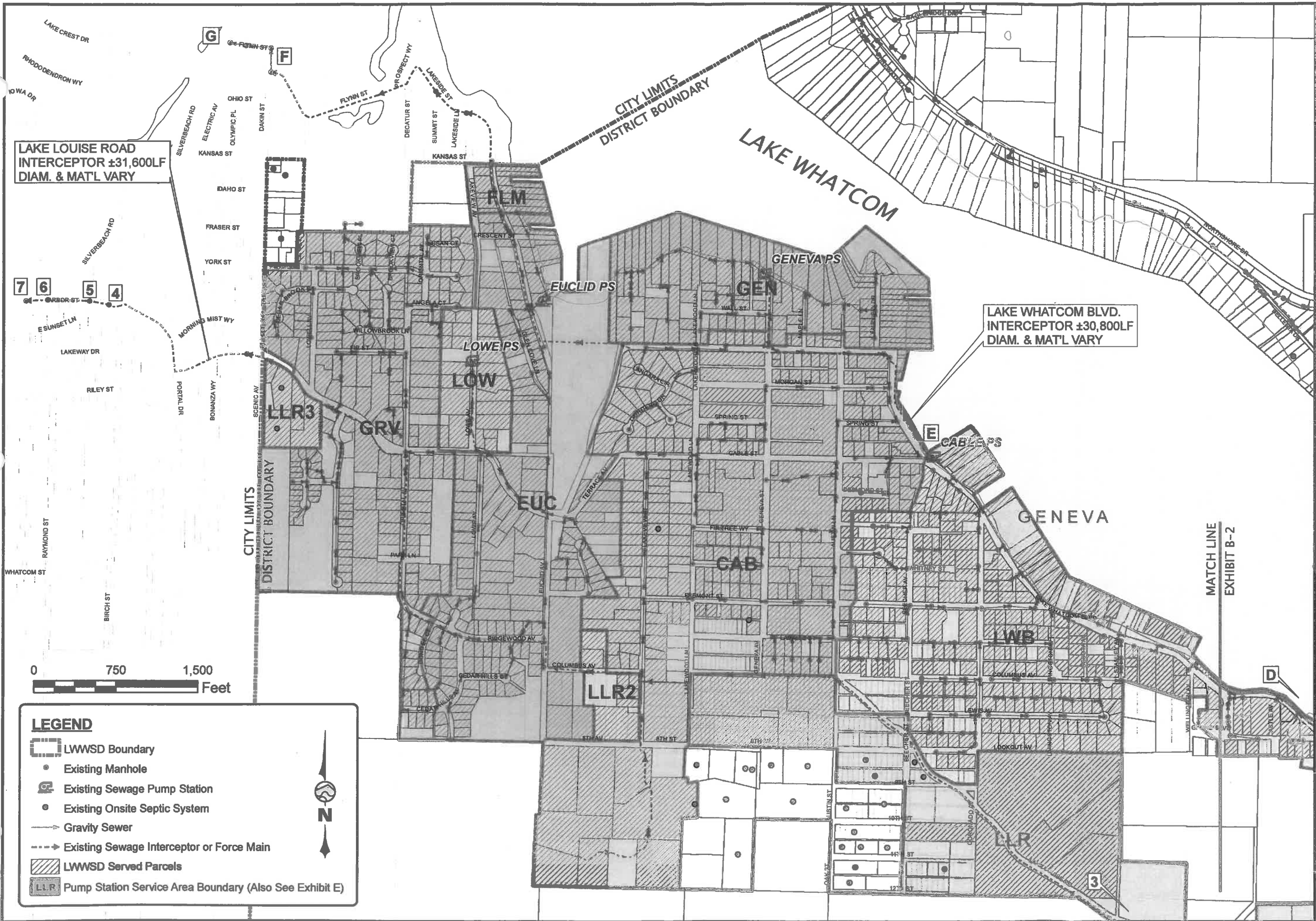
3. Existing Activities and Programs

a) Lake Whatcom Management Team

The District is a partner in the interlocal agreement governing the Lake Whatcom Management Team and actively participates in its meetings at all levels - Policy Group, Executive, and ICT (Interjurisdictional Coordinating Team). The District also provides funding for the Team's ongoing programs, such as the Invasive Species Program. The Team will be preparing its next five-year action plan in 2014.

b) Education Outreach

The District provides educational materials on various topics to its customers on the District website, and through bill-stuffers and handouts at the District Office. These materials include ways to conserve water, reduce stormwater runoff and improve lake water quality.



WILSON ENGINEERING, LLC
808 DUPONT STREET
BELLINGHAM, WA 98225
(360) 733-6100 FAX (360) 647-9061
www.wilsonengineering.com



DESIGNED BY
MMM
DRAWN BY
RDN
CHECKED BY
MMM

LAKE WHATCOM WATER & SEWER DISTRICT
WASHINGTON
EXHIBIT B-1
SUDDEN VALLEY - GENEVA
SEWER COLLECTION SYSTEM

DATE
JUNE 2013
SCALE
AS SHOWN
JOB NO.
2013-014
SHEET
1
OF
1

MATCH LINE
EXHIBIT B-2

LAKE WHATCOM
NORTH POIN

**NORTH POINT
FORCE MAIN**

AIRPORT PS

NORTH POINT PS

MARINA PS

TOMB PS

AFTERNOON BEACHES

CAMP FIRWOOD PS

ROCKY RIDGE PS

PLUM-PLACE PS

LAKEWOOD PS

SUDDEN
VALLEY

STRAWBERRY CANYON PS

SUDDEN VALLEY PS CO

COUNTRY CLUB PS

LOUISE PARK PS

AUSTIN CREEK PS

**RANCH
HOUSE
FORC
MAIN**

OLD FLATCAR PS

FLATCARPS

LAKE LOUISE RD

LAKE LOUISE ROAD
INTERCEPTOR ±31,600LF
DIAM. & MAT'L VARY

LEGEND

 LWWSD Boundary

 **Siphon**

 Existing Sewage Pump Station

- Existing Manhole

→ Gravity Sewer

→ Existing Sewage Interceptor or Force Main

- Existing Onsite Septic System

FLA Pump Station Service Area Boundary

 **LWWSD Served Parcels**

DISTRICT BOUNDARY

A horizontal scale bar with markings at 0, 1,000, and 2,000 feet. The bar is divided into segments, with the first segment (0 to 1,000 feet) having a black and white checkerboard pattern, and the subsequent segments (1,000 to 2,000 feet) being solid black. The word "Feet" is written at the right end of the bar.

**SEE TRUNK SEWER CHART EXHIBIT B-1
FOR ADDITIONAL INFORMATION**

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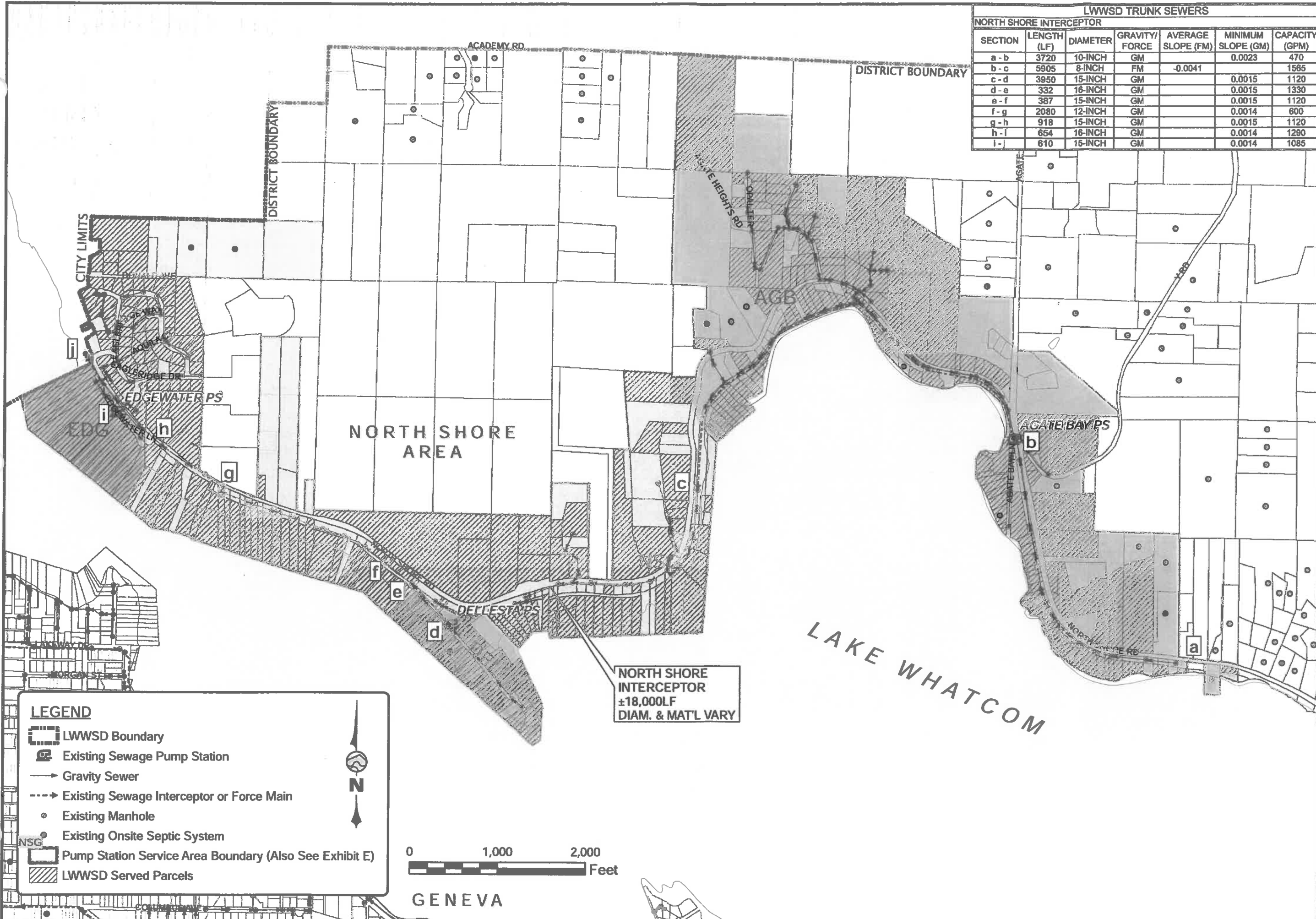
Wilson
SURVEY/ENGINEERING

DESIGNED BY MMM	DRAWN BY RDN	CHECKED BY MMM
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LAKE WHATCOM WATER & SEWER DISTRICT

EXHIBIT B-3
SUDDEN VALLEY - GENEVA
SEWER COLLECTION SYSTEM

SHEET	DATE
1	APRIL 2014
OF	SCALE
1	AS SHOWN
	JOB NO.
	2013-014



WILSON ENGINEERING, LLC
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BELLINGHAM, WA 98225
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SURVEY/ENGINEERING

DESIGNED BY
MMM

DRAWN BY
RDN

CHECKED BY
MMM

LAKE WHATCOM WATER & SEWER DISTRICT
WASHINGTON

EXHIBIT B-4
NORTH SHORE
SEWER COLLECTION SYSTEM

DATE
JUNE 2013

SCALE
AS SHOWN

JOB NO.
2013-014

SHEET
1

OF
1

The calculated existing conditions peak flow is 249 gpm for 366 ERU to the North Shore meter. Calculated peak flow and available observed peak flow data are very close and no adjustments are made to the model loading for this analysis.

Calculated future conditions peak flow is 278 gpm for 545 ERU to the North Shore meter. It is important to note that for future conditions a lower peaking factor is used (3.0 for >500 ERU, instead of 4). Thus, a relatively minor increase in peak flow is calculated for the anticipated growth in ERUs.

4. CAPACITY ANALYSIS

The capacity analysis was conducted using steady-state conditions during the wet weather peak hourly flow event. As noted previously, this analysis simulates the average peak hourly flow and not the instantaneous peak flow effects from short-term pumping rates.

South Shore

South Shore modeling results for the following scenarios are included as Attachments D-3b (simulation reports) and D-3c (output reports).

Sudden Valley PS to LWBI ('Low Energy')

Existing conditions

Model simulations confirm that LWBI does not have sufficient capacity for this operating scenario. There are many pipes (12-11 to 30-29 all but one) flowing above capacity and flooding manholes (GT-20 to GT-30) from Strawberry Point west to Wellington Ave.

Existing conditions w/ Sudden Valley Detention Basin active

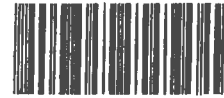
With the Detention Basin removing full inflow to Sudden Valley pump station (approximate 333 gpm), LWBI capacity is still insufficient. There are 3 flooding manholes (GT-25, GT-26, GT29STP) and still several pipes flowing above capacity. The three manholes identified are shallow; 4.1, 4.0, and 4.6 feet, respectively, deep from rim to invert.

Sudden Valley PS to LLRI (current operating scenario year-round, 'High Energy')

Existing conditions

Model simulations indicate no flooding manholes for this scenario (highest filled manhole is GT-25 at 1.8 feet below rim). However, there are several pipes flowing near or above capacity.

Future (ultimate build-out) conditions



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Page: 1 of 22
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Whatcom County, WA

Request of: BELLINGHAM CITY OF

AFTER RECORDING RETURN DOCUMENT TO:

City of Bellingham – Public Works, Engineering

210 Lottie Street

Bellingham, WA 98225

DOCUMENT TITLE:

INTERLOCAL AGREEMENT FOR SEWAGE SERVICES

GRANTOR(S):

CITY OF BELLINGHAM, & LAKE WHATCOM WATER & SEWER DISTRICT

GRANTEE(S):

CITY OF BELLINGHAM, & LAKE WHATCOM WATER & SEWER DISTRICT

ABBREVIATED LEGAL DESCRIPTION: NA

ASSESSOR'S 16-DIGIT GEO-PARCEL NUMBER: NA

The Auditor/Recorder will rely on the information provided on this form. The responsibility for the accuracy of the indexing information is that of the document preparer.

NOTICE: RCW 65.04.047. Section 14: eff. 8/1/99

"I AM REQUESTING AN EMERGENCY NONSTANDARD RECORDING FOR AN ADDITIONAL FEE AS PROVIDED IN RCW 36.18.010. I UNDERSTAND THAT THE RECORDING PROCESSING REQUIREMENTS MAY COVER UP OR OTHERWISE OBSCURE SOME PART OF THE TEXT OF THE ORIGINAL DOCUMENT."

ATTACHED DOCUMENT CONTAINS 21 PAGES Contract #: 2014-0136

SIGNED BY:

21. **RECORDING.** The City shall record this Agreement with the Whatcom County Auditor in accordance with the Washington Interlocal Cooperation Act, Title 39.34 RCW.


EXECUTED this 12 day of February, 2014 for LAKE WHATCOM WATER & SEWER DISTRICT.


District Board President


District General Manager



ATTEST:

APPROVED AS TO FORM:


Finance Manager

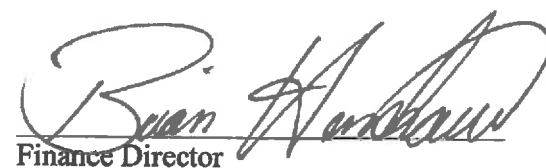

District Legal Counsel

EXECUTED this 27th day of March, 2014 for the CITY OF BELLINGHAM.


Mayor

ATTEST


Director of Public Works

APPROVED AS TO FORM:

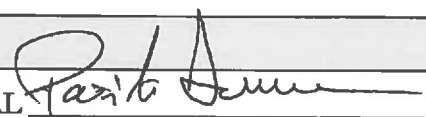

Finance Director


Office of the City Attorney



LAKE WHATCOM WATER AND SEWER DISTRICT

AGENDA BILL

DATE SUBMITTED:	May 6, 2014		
TO BOARD OF COMMISSIONERS			
FROM: Patrick Sorensen	MANAGER APPROVAL 		
MEETING AGENDA DATE:	May 14, 2014		
AGENDA ITEM NUMBER:	7		
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

May 14, 2014

Board Meeting

Important Upcoming Dates:

- **Meetings Associated with the Lake Whatcom Management Program:**
 - **Policy Group Meeting:** The next meeting will be held May 12, 2014 at 1:30 p.m. in the Garden Room at the County's Civic Center (Public Works) Building. The discussion and policy questions will be centered on the capital investment policy and funding issues associated with 50-year and 25-year phosphorus reduction scenarios. A copy of the agenda was emailed to you previously. Remember, all Policy Group Meetings are publicly noticed by the District.
 - **Management Meeting:** The next meeting with the Mayor and County Executive has not been scheduled. The last meeting was held on March 12, 2014.
- **Next Regular Board Meeting:** The next regular meeting is scheduled for Wednesday, May 28, 2014 at 8:00 a.m.
- **Next Employee Staff Meeting:** Is set for Thursday, May 15, 2014 at 8:00 a.m. in the Board Room. Commissioner Weide is scheduled to attend this coming meeting. Scheduling is rotated by alphabetical order each month.
- **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 at 6:15 p.m. on Tuesday, May 13, 2014. All WASWD Section III Meetings are publicly noticed by the District.
- **Whatcom Water District's Caucus Meeting:** The next meeting is scheduled for Wednesday, May 21, 2014 from 1:00 p.m. to 3:00 p.m. in the District's Board Room. These meetings are held on the third Wednesday of each month.
- **WRIA 1 Planning Unit Meeting:** The next meeting is scheduled for May 28, 2014 at 6:00 p.m. in the County's Garden Room. This meeting is now held on the fourth Wednesday of the month.

Other:

- **Committee Meeting Reports as Needed:** This is a place holder for Board and staff members to report on recent committee meeting reports since the last Board Meeting.
- **Legal Counsel Recruitment Update:** On Wednesday, June 4 in the morning we will hold a special meeting to interview the four candidates. A schedule in the near future will be established and shared with the Board in advance of the meeting. Each of the proposers has been notified. Please remember to forward to me any questions you have developed so that we can narrow it down to a list of a few questions.
- **Out of the Area:** FYI. I will be out of the area on vacation between May 29 and June 2. I will be back in the office June 3. Bill Hunter will be available to address any issues during my brief absence.