



## LAKE WHATCOM WATER & SEWER DISTRICT

1220 Lakeway Drive  
Bellingham, WA, 98229

(360) 734-9224  
Fax 738-8250

# MEMORANDUM

Date: June 3, 2020  
From: Lake Whatcom Water & Sewer District  
RE: Meeting Procedures During the Covid-19 Emergency

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Lake Whatcom Water & Sewer District continues to operate under adjusted procedures in order to provide continuous service to our customers. That said, we are taking precautions in an effort to protect the health and safety of our staff, commissioners, and customers. Our lobby is currently closed to the public, and we are practicing social distancing guidelines as suggested by Governor Inslee and the CDC.

For the foreseeable future, Commissioners will be attending regular meetings by phone. Per Governor Inslee's [Proclamation No. 20-28.3](#) amending his Stay Home, Stay Health proclamation, the District will provide access to interested public via phone/internet utilizing the GoToMeeting platform.

If you would like to attend the June 10 regular meeting, details can be found below. In this evolving climate, we are committed to doing everything possible to provide opportunity for public comment as well as promote health and safety. As such, the District requests that if possible, public submit comments in written form by noon the day before a scheduled meeting for inclusion in the meeting discussion.

We appreciate your understanding and patience during these uncertain times. If you have any questions, please contact Administrative Assistant Rachael Hope at [rachael.hope@lwwsd.org](mailto:rachael.hope@lwwsd.org) or 360-734-9224.

### **6.10.20 Regular Board Meeting**

Wed, Jun 10, 2020 6:30 PM - 8:30 PM (PDT)

**Please join my meeting from your computer, tablet or smartphone.**

<https://global.gotomeeting.com/join/274506933>

**You can also dial in using your phone.**

United States: [+1 \(224\) 501-3412](tel:+12245013412)

**Access Code:** 274-506-933

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## LAKE WHATCOM WATER AND SEWER DISTRICT

1220 Lakeway Drive  
Bellingham, WA 98229

### REGULAR MEETING OF THE BOARD OF COMMISSIONERS

## AGENDA

*June 10, 2020*


6:30 p.m. – Regular Session

1. CALL TO ORDER
2. ROLL CALL
3. CONFIRMATION OF COMPLIANCE WITH REMOTE MEETING ATTENDANCE PROTOCOLS
4. PUBLIC COMMENT OPPORTUNITY  
At this time, members of the public may address the Board of Commissioners. Please state your name prior to making comments.
5. ADDITIONS, DELETIONS, OR CHANGES TO THE AGENDA
6. CONSENT AGENDA
7. SPECIFIC ITEMS OF BUSINESS
  - A. Resolution No. 866—Sewer Comprehensive Plan 2020 Update
  - B. Resolution No. 867—2020-2024 Lake Whatcom Management Program Work Plan
  - C. Dellesta and Edgewater Sewer Lift Stations Improvement Project Public Works Construction Contract Award
8. OTHER BUSINESS
9. STAFF REPORTS
  - A. General Manager
10. PUBLIC COMMENT OPPORTUNITY
11. ADJOURNMENT



**AGENDA  
BILL  
Item 6**

**Consent Agenda**

DATE SUBMITTED:	June 3, 2020	MEETING DATE:	June 10, 2020
TO: BOARD OF COMMISSIONERS		FROM: Rachael Hope	
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS		1. See below	
		2.	
		3.	
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL /OTHER <input type="checkbox"/>

**\*\*TO BE UPDATED 6.10.2020\*\***

**BACKGROUND / EXPLANATION OF IMPACT**

- Minutes for the 5/27/20 Regular Board Meeting
- Payroll for Pay Period #11 (05/16/2020 through 05/29/2020) totaling \$44,379.32
- Payroll Benefits for Pay Period #11 totaling \$50,953.00
- Accounts Payable Vouchers total to be added

**FISCAL IMPACT**

Fiscal impact is as indicated in the payroll/benefits/accounts payable quantities defined above. All costs are within the Board-approved 2020 Budget.

**RECOMMENDED BOARD ACTION**

Staff recommends the Board approve the Consent Agenda.

**PROPOSED MOTION**

A recommended motion is:

“I move to approve the Consent Agenda as presented.”



## LAKE WHATCOM WATER AND SEWER DISTRICT

1220 Lakeway Drive  
Bellingham, WA 98229

### REGULAR SESSION OF THE BOARD OF COMMISSIONERS

## Minutes

*May 27, 2020*

Board President Laura Abele called the Regular Session to order at 8:00 a.m.

<b>Attendees:</b> Commissioner Laura Abele*	General Manager Justin Clary
Commissioner John Carter*	District Engineer/Assistant GM Bill Hunter*
Commissioner Bruce Ford*	Finance Manager/Treasurer Debi Denton
Commissioner Leslie McRoberts *	Operations & Maintenance Manager Brent Winters*

\*Attendees marked with an asterisk participated remotely by phone or video conferencing.

**Absences:** Commissioner Todd Citron

No public were in attendance.

#### **Roll Call**

General Manager Justin Clary performed a roll call to identify those in attendance, as well as confirm that all participants were able to be heard and hear each other clearly. He also verbally confirmed that this meeting was noticed in accordance with Resolution No. 859 allowing remote meeting attendance as well as in compliance with current statutory requirements.

#### **Consent Agenda**

##### **Action Taken**

**Ford moved, McRoberts seconded, approval of:**

- **Minutes for the 5/13/20 Regular Board Meeting**
- **Payroll for Pay Period #10 (05/02/2020 through 05/15/2020) totaling \$42,671.59**
- **Payroll Benefits for Pay Period #08 totaling \$50,316.26**
- **Accounts Payable Vouchers totaling \$65,696.66**

**Motion passed.**



### **Disposal of Surplus Property**

Winters and Hunter explained that the items proposed for surplus were pumps the District has no use for from the converted Scenic Intertie Lift Station, as well as an aging large-format printer. Once surplus, they reported, staff would research options for auctioning or safe disposal of items.

### **Action Taken**

**McRoberts moved, Ford seconded, to declare the property defined in the list dated May 21, 2020, as surplus and authorize staff to dispose of each item in a manner that is most beneficial to the District and consistent with state law. Motion passed.**

### **General Manager's Reports**

Clary provided updates on several topics to the Board, including development of a COVID-19 Exposure Control and Disease Preparedness Response Plan for the District, continuing work on a FEMA grant to mitigate District costs directly related to the COVID-19 pandemic, anticipated continuance of the state orders regarding the Open Public Meetings Act. He also informed the Board about recent discussions with the Department of Ecology regarding its consideration of resuming processing of surface water right applications on Lake Whatcom. Discussion followed.

### **Engineering Department Report**

Hunter gave a status update on items including permitting activity, an upcoming bid opening, and a project scheduled to be done at Camp Firwood on the sewer wetwell in June.

### **Finance Department Report**

Denton presented April financial summaries, and reported on topics including office staff activity and plans for keeping staff and customers as safe as possible once the office is open to the public again.

### **Operations Department Report**

Winters gave a brief update on operations and maintenance activities, including use of Go to Meeting for morning crew meetings, water treatment plant operations, side sewer inspection activity, and water main flushing. Discussion followed.

With no further business, Abele adjourned the Regular Session 8:26 a.m.

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Recording Secretary, Rachael Hope

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Date Minutes Approved

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Laura Abele

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Todd Citron

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Bruce R. Ford

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Leslie McRoberts

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John Carter

# CHECK REGISTER **PAYROLL**

Lake Whatcom W-S District

Time: 13:19:23 Date: 06/02/2020

MCAG #: 2330

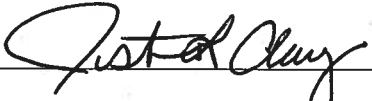
06/04/2020 To: 06/04/2020

Page: 1

Trans	Date	Type	Acct #	Chk #	Claimant	Amount Memo
1693	06/04/2020	Payroll	5	EFT		3,682.56 05/16/2020 - 05/29/2020 PR 12
1694	06/04/2020	Payroll	5	EFT		4,015.07 05/16/2020 - 05/29/2020 PR 12
1695	06/04/2020	Payroll	5	EFT		3,675.64 05/16/2020 - 05/29/2020 PR 12
1696	06/04/2020	Payroll	5	EFT		3,508.92 05/16/2020 - 05/29/2020 PR 12
1697	06/04/2020	Payroll	5	EFT		1,630.24 05/16/2020 - 05/29/2020 PR 12
1699	06/04/2020	Payroll	5	EFT		1,353.99 05/16/2020 - 05/29/2020 PR 12
1700	06/04/2020	Payroll	5	EFT		2,862.18 05/16/2020 - 05/29/2020 PR 12
1701	06/04/2020	Payroll	5	EFT		1,862.90 05/16/2020 - 05/29/2020 PR 12
1702	06/04/2020	Payroll	5	EFT		3,175.98 05/16/2020 - 05/29/2020 PR 12
1703	06/04/2020	Payroll	5	EFT		1,943.18 05/16/2020 - 05/29/2020 PR 12
1704	06/04/2020	Payroll	5	EFT		2,061.91 05/16/2020 - 05/29/2020 PR 12
1705	06/04/2020	Payroll	5	EFT		2,433.34 05/16/2020 - 05/29/2020 PR 12
1706	06/04/2020	Payroll	5	EFT		1,458.00 05/16/2020 - 05/29/2020 PR 12
1707	06/04/2020	Payroll	5	EFT		1,742.20 05/16/2020 - 05/29/2020 PR 12
1708	06/04/2020	Payroll	5	EFT		2,145.42 05/16/2020 - 05/29/2020 PR 12
1709	06/04/2020	Payroll	5	EFT		2,757.55 05/16/2020 - 05/29/2020 PR 12
1710	06/04/2020	Payroll	5	EFT		2,689.31 05/16/2020 - 05/29/2020 PR 12
1698	06/04/2020	Payroll	5	10421		1,380.93 05/16/2020 - 05/29/2020 PR 12
401 Water Fund						13,856.09
402 Sewer Fund						30,523.23

44,379.32 Payroll: 44,379.32

I do hereby certify, under penalty of perjury, that the above is an unpaid, just, and due obligation as described herein, and that I am authorized to certify this claim.

Sign  Date 6/2/2020

Board Authorization - As the duly elected board for this district we have reviewed the claims listed and approve the payment with our signatures below.

\_\_\_\_\_  
Commissioner

\_\_\_\_\_  
Commissioner

\_\_\_\_\_  
Commissioner

\_\_\_\_\_  
Commissioner

\_\_\_\_\_  
Commissioner

**CHECK REGISTER****BENEFITS**

Lake Whatcom W-S District  
MCAG #: 2330

06/04/2020 To: 06/04/2020

Time: 13:27:04 Date: 06/02/2020  
Page: 1

Trans	Date	Type	Acct #	Chk #	Claimant	Amount	Memo
1711	06/04/2020	Payroll	5	EFT	UNITED STATES TREASURY	16,758.24	941 Deposit for Pay Cycle(s) 06/04/2020 - 06/04/2020
1712	06/04/2020	Payroll	5	EFT	WA ST SUPPORT ENFORCEMENT REGISTRY	208.34	Pay Cycle(s) 06/04/2020 To 06/04/2020 - SUP ENF
1713	06/04/2020	Payroll	5	10422	AFLAC	354.85	Pay Cycle(s) 06/04/2020 To 06/04/2020 - AFLAC Pre-Tax; Pay Cycle(s) 06/04/2020 To 06/04/2020 - AFLAC Post-Tax
1714	06/04/2020	Payroll	5	10423	AFSCME LOCAL	363.36	Pay Cycle(s) 06/04/2020 To 06/04/2020 - Union Dues; Pay Cycle(s) 06/04/2020 To 06/04/2020 - Union Fund
1715	06/04/2020	Payroll	5	10424	DEPARTMENT OF RETIREMENT SYSTEMS	4,070.03	Pay Cycle(s) 06/04/2020 To 06/04/2020 - DCP
1716	06/04/2020	Payroll	5	10425	HRA VEBA TRUST (PAYEE)	515.00	Pay Cycle(s) 06/04/2020 To 06/04/2020 - VEBA
1717	06/04/2020	Payroll	5	10426	VANTAGEPOINT TRANSFER AGENTS - 306798	100.00	Pay Cycle(s) 06/04/2020 To 06/04/2020 - ICMA
1718	06/04/2020	Payroll	5	10427	WA ST PUBLIC EMP RET PLAN 2	10,805.90	Pay Cycle(s) 06/04/2020 To 06/04/2020 - PERS 2
1719	06/04/2020	Payroll	5	10428	WA ST PUBLIC EMP RET PLAN 3	3,243.37	Pay Cycle(s) 06/04/2020 To 06/04/2020 - PERS 3
1720	06/04/2020	Payroll	5	10429	WASHINGTON STATE HEALTH CARE AUTHORITY	14,533.91	Pay Cycle(s) 06/04/2020 To 06/04/2020 - PEBB Medical; Pay Cycle(s) 06/04/2020 To 06/04/2020 - PEBB ADD LTD; Pay Cycle(s) 06/04/2020 To 06/04/2020 - PEBB SMK Surcharge; Pay Cycle(s) 06/04/2020 To 06/04
401 Water Fund						37,770.70	
402 Sewer Fund						13,182.30	

50,953.00 Payroll: 50,953.00

**CHECK REGISTER****BENEFITS**

Lake Whatcom W-S District

Time: 13:27:04 Date: 06/02/2020

MCAG #: 2330

06/04/2020 To: 06/04/2020

Page: 2

Trans	Date	Type	Acct #	Chk #	Claimant	Amount	Memo
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I do hereby certify, under penalty of perjury, that the above is an unpaid, just, and due obligation as described herein, and that I am authorized to certify this claim.

Sign  Date 6/2/2020


Board Authorization - As the duly elected board for this district we have reviewed the claims listed and approve the payment with our signatures below.

\_\_\_\_\_  
Commissioner\_\_\_\_\_  
Commissioner\_\_\_\_\_  
Commissioner\_\_\_\_\_  
Commissioner\_\_\_\_\_  
Commissioner



**AGENDA  
BILL  
Item 5.A**

**Resolution No. 866  
Adoption of 2020 Update to the  
Comprehensive Sewer Plan**

DATE SUBMITTED:	June 1, 2020	MEETING DATE:	June 10, 2020
TO: BOARD OF COMMISSIONERS	FROM: Bill Hunter, Assist. GM/District Engineer		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. Wilson Engineering Summary of Revisions		
	2. Resolution No. 866		
TYPE OF ACTION REQUESTED	RESOLUTION <input checked="checked" type="checkbox"/>	FORMAL ACTION/ MOTION <input type="checkbox"/>	INFORMATIONAL /OTHER <input type="checkbox"/>

**BACKGROUND / EXPLANATION OF IMPACT**

The District owns and operates a sanitary sewer collection and conveyance system that is comprised of approximately 75 miles of pipeline and 28 sewer lift stations. All sewage collected by the District's system is conveyed to city of Bellingham's system for treatment at the city's Post Point wastewater treatment plant.

The District maintains a comprehensive sewer plan that summarizes the existing system and defines future system improvements to accommodate growth and maintain existing system function through proactive replacement of applicable facilities. The plan is developed to comply with the Whatcom County comprehensive plan, the requirements of the State [Growth Management Act](#) (GMA), and [Washington Administrative Code Section 173-240-050](#). The existing plan was approved by the Washington State Department of Ecology on June 6, 2014. The District updates the plan every six years. As such, included within the 2019 Budget was funding for update of the existing plan, which was completed by the District's consultant engineer, Wilson Engineering. The Board reviewed an earlier revision of the Plan and approved its issuance to review agencies (Washington State Department of Ecology, Whatcom County Health, Public Works, and Planning and Development Services departments, and the city of Bellingham) during its regularly scheduled meeting on February 12, 2020. The Plan has since been revised to incorporate agency comments (please refer to Attachment 1, which summarizes those revisions). The next step in the process is for the Board to adopt the update via resolution (see Attachment No. 2), so that it may be forwarded for final approval by the Whatcom County Council.

**FISCAL IMPACT**

As this is an infrastructure system planning document, capital improvements are included within it for integration into the District's six-year capital improvement program. Associated costs will be integrated into the rate study scheduled for completion in 2020 and into subsequent District budgets during the applicable planning year(s).

**RECOMMENDED BOARD ACTION**

Staff recommends the Board approve the Comprehensive Sewer Plan by adopting Resolution No. 866.

**PROPOSED MOTION**

A recommended motion is:

"I move to adopt Resolution No. 866 as presented."

## Consulting Engineer's Brief Sheet

(Melanie Mankamyer)

Prepared April 3, 2020 for Future Commissioner's Meeting

### Adoption of Final Comprehensive Sewer Plan

#### **Background**

The Board approved the Comprehensive Sewer Plan for distribution and Agency Review at the February 12, 2020 Regular Meeting. We sent the Plan to the Department of Ecology (Ecology), Whatcom County Health Department, Whatcom County Engineering and Whatcom County Planning. We received approvals from WC Health, WC Engineering and Ecology. We received comments from Whatcom County Planning (approval not required).

We have made minor changes and corrected typographical errors to the main body of the report. The Exhibits have not changed. The "change pages" are attached. The clean version is available on the District's website. 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 attached Resolution).** We will then submit the final Plan to Whatcom County Council for their approval.

#### **Summary of Changes:**

- (a) Cover and Title page - changed February to March.
- (b) Page 1 - added reference to County code at the request of WC Planning.
- (c) Page 2 - added reference to County code at the request of WC Planning.
- (d) Page 7, Table 4 - corrected table values, updated and added callout for source of County data.
- (e) Page 11 - corrected connection numbers to match Table 7.
- (f) Page 12, Table 7 - corrected LWWSD ERUs and population estimates (some values were from Table 4); updated and added callout for source of County data.
- (g) Page 16 - made text changes requested by WC Planning.
- (h) Page 17 - made text changes requested by WC Planning.
- (i) Page 22 - changed text to reflect that hazard mitigation plan is already in place (Ecology had asked about it).
- (j) Page 23 - changed text to acknowledge the TMDL process as water quality management planning and add "no discharge" statement as requested by Ecology.

**LAKE WHATCOM WATER AND SEWER DISTRICT**

1220 Lakeway Drive  
Bellingham, Washington 98229

**COMPREHENSIVE SEWER PLAN  
2020 UPDATE**



**BOARD OF COMMISSIONERS:**

Laura Abele, President  
Todd Citron, Secretary  
John Carter, Commissioner  
Bruce Ford, Commissioner  
Leslie McRoberts, Commissioner

Justin Clary, PE, General Manager

Prepared By:

**WILSON ENGINEERING, L.L.C.**  
805 Dupont Street, Suite #7  
Bellingham, Washington 98225  
(360) 733-6100 (office); (360) 647-9061 (fax)



**February-March 2020**



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## **I. BACKGROUND**

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### **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 (Ecology) guidelines as presented in Washington Administrative Code (WAC) 173-240-050.

In accordance with Revised Code of Washington (RCW) 57.16.010, the District's Comprehensive Sewer Plan is submitted to the following persons and/or agencies for review and approval:

- Washington State Department of Ecology
- Director, Whatcom County Health Department
- County Engineer, Whatcom County Public Works Department
- Whatcom County Council

#### **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 the District seeks to comply with the Whatcom County Comprehensive Plan, [Whatcom County Code 20.82.030\(4\)](#), and the requirements of the Washington State Growth Management Act (GMA), Chapter 36.70A RCW.

## I. BACKGROUND

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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.

The 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 on both the north and south shore of Lake Whatcom and now has twenty-six sewer pump stations (after replacing Country Club Pump Station with a gravity main and decommissioning the pump station in 2019), 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 urban growth areas (UGAs) and limited areas of more intense rural development (LAMIRDs, Whatcom County Code [WCC] 20.80.100). This Comprehensive Sewer Plan endeavors to be consistent with the provisions contained in the Whatcom County Comprehensive Plan [and Whatcom County Code 20.82.030\(4\)](#). 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.

In accordance with the District's Administrative Code, properties that lie within the District's boundaries are generally required to connect to the sewer if the property lies within 200 feet of the public sewer and is inside of a UGA or LAMIRD, or within 150 feet of the public sewer and is outside of a UGA or LAMIRD.

### 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

## II. EXISTING FACILITIES

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

Study Area: Sudden Valley / Geneva	LWWSD Existing (2019)	Whatcom County Projections** Year-2036	LWWSD Projections 20 years – 2039 (@15 ERU/year*)	LWWSD Projections Full build-out ***
Equivalent Residential Units ERUs* (Service connections)	3,953  (3,653)	Households- :  <del>4,333</del> <u>304</u>	4,253  (3,953)	4,657  (4,357)
Population Estimate (2.67 residents per service)	10,555	<del>11,222</del> <u>147</u> (@ 2.59persons /household)	11,356	12,434
Projected Average Daily Flow (GPD): Flow Meter Average - 180 GPD per ERU	711,540 GPD	<del>779,774</del> <u>940,720</u> GPD	765,540 GPD	838,260 GPD
Projected Peak Daily Flow (GPM): Flow Meter Average x 3 Peaking Factor	1,482 GPM	<del>1,625</del> <u>614</u> GPM	1,595 GPM	1,746 GPM

\* For most future growth, assume 1 connection = 1 ERU. Vacant parcels larger than 5 acres were allocated 1 ERU/5 acres.

\*\* [Based on Whatcom County Comprehensive Plan Update FEIS \(November 2015\) Appendix E: Preferred Alternative Allocations by Service Provider.](#) Assumes a 90%/10% split between South Shore and North Shore service areas; does not allocate any ~~growth-households~~ to South Bay / Blue Canyon.

\*\*\* Reduction includes permanently restricted lots, substandard lots with adjacent ownership, shorelands, etc.

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 boundaries used by the City and County. 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”, but counts all vacant parcels without making any determination regarding whether they are viable parcels for development.

### e) Hydraulic Modeling

Hydraulic modeling of portions of the South Shore collection system trunk mains was performed for the District’s Comprehensive Sewer Plan - 2014 Update to evaluate capacity during peak hourly wet weather flow conditions. The physical model network consisted of the Sudden Valley Pump Station, LWBI force main, LWBI gravity main, and Cable Street Pump Station. The South Shore model was used to simulate several operational scenarios that the District typically uses. Conditions have not materially changed and the previous results are still valid and are summarized below. (The Lake Louise Road Interceptor design in 2001 sufficiently addressed the various operating scenarios through build-out conditions).

Hydraulic modeling of the Lake Whatcom Boulevard Interceptor (LWBI) trunk main portion of the South Shore system was performed to evaluate capacity for multiple operational scenarios during peak hourly wet weather flow conditions. This full analysis can be found in Exhibit D of the 2014 Comprehensive Sewer Plan Update.

## II. EXISTING FACILITIES

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The District's contract with the City of Bellingham specifies a maximum flow rate which is discussed in detail in Section C - 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. There have also been numerous land purchases and development restrictions by the City and others in the North Shore service area.

There are approximately 50-170 potential additional connections to the North Shore Collection System for an estimated ~~560-553~~ 535-528 connections (~~560-553~~ ERUs) at build-out. These potential additional connections consist of previously created lots suitable for residential development under current land use regulations that are near existing sewers and existing residential development served by on-site septic systems near Lake Whatcom that could be served by sewer extensions should they be permitted in the future.

Although projected wastewater flows were previously calculated in two ways – using the North Shore flow meter data and using industry-standard rates –the two numbers were diverging. The metered data shows a decrease in flows per ERU from 180 GPD to 168 GPD. The industry standard uses 100 GPD per person, and the number of persons per household has increased from 2.5 to 2.55<sup>3</sup>. The design standard would then be 255 GPD per ERU, which is 50% higher than the number derived from the metered data. The District has elected to use the metered data since it is a more accurate representation of actual conditions.

The numbers presented below are the existing and projected flows for the North Shore Collection System. As discussed above, the projected flows are based on the metered data and assumes an average daily wastewater flow per ERU of 168 gallons and a peak daily wastewater flow per ERU of 672 gallons (4 times average daily flow). The twenty-year projection is based on a growth rate of 1 ERU/year, which is representative of the actual growth of recent years. The build-out projection includes the 100-125 properties at the east end of Northshore Road that currently do not have sewer available. See Table 7 below.

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<sup>3</sup> Whatcom County, 2017 American Community Survey by the U.S. Census Bureau

## II. EXISTING FACILITIES

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

Study Area: North Shore	LWWSD Existing (2019)	Whatcom County Projections** Year-2036	LWWSD Projections 20 years – 2039 (@1 ERU/year*)	LWWSD Projections Full build- out***
Equivalent Residential Units ERUs* (Service connections)	391 (366)	Households**: <del>462</del> 478	411 ( <del>394</del> 386)	553 (528)
Population Estimate (2.55 residents per service)	977	<del>11,222</del> 1,239 (@ 2.59persons /household)	1,048	1,410
Projected Average Daily Flow (GPD): Flow Meter Average - 170 GPD per ERU	65,688 GPD	<del>80,304</del> 77,616 GPD	69,048 GPD	<del>94,010</del> 92,904 GPD
Projected Peak Daily Flow (GPM): Flow Meter Average x 4 Peaking Factor	182 GPM	<del>216</del> 223 GPM	192 GPM	<del>261</del> 258 GPM

\* For all future growth, assume 1 connection = 1 ERU. No large user growth is anticipated.

\*\* [Based on Whatcom County Comprehensive Plan Update FEIS \(November 2015\) Appendix E: Preferred Alternative Allocations by Service Provider.](#) Assumes a 90%/10% split between South Shore and North Shore service areas; does not allocate any ~~growth households~~ to South Bay.

\*\*\* Includes approximately 105 existing developed properties and 20 vacant properties at the east end of Northshore Road.

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 for the District’s Comprehensive Sewer Plan - 2014 Update to evaluate capacity during peak hourly wet weather flow conditions. Conditions have not changed and the previous results are still valid.

The following is a summary of the results of the modeling simulations of the North Shore collection system trunk main;

- Existing conditions – modeling indicates adequate capacity,
- Future (build-out) conditions – adequate capacity. However, the existing 4-inch meter and line could become enough of a restriction at high flows (350 gpm) to back up water and cause flooding at two shallow manholes upstream of the meter.

### III. FUTURE SEWER SERVICE REQUIREMENTS

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#### B. Potential Sewer Service in the North Shore Collection System

The District will consider extensions to the existing North Shore sewer collection system only on an “as-needed” basis in those areas within the District boundaries not presently served by the gravity sewer collection system. At this time, there are no active developer extension projects within this service area. The District has identified one area that has already been developed with on-site septic systems that may be a candidate in the future for a sewer extension (Reference Exhibit J-4 for a map of this extension).

##### 1. North Shore Road ULID

There are approximately 105 existing homes on North Shore Road beyond the east end of the District’s sewer system. These homes have on-site septic systems and many are close to Lake Whatcom. These homes are not currently in a UGA or LAMIRD, however providing public sewers to these residences may be a cost-effective means of reducing the phosphorous and bacterial loading to Lake Whatcom. However, Whatcom County Code 20.82.030(4) states that “... Sewer lines shall not be extended to serve lots outside urban growth areas unless such extensions are 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...” In addition to the normal process of petitioning for a Utility Local Improvement District, a project to extend sewer here would require obtaining a Conditional Use Permit and approval of the Hearing Examiner if allowed under the restrictions set forth in WCC 20.82.030(4). A preliminary investigation about extending the District’s sewer service to this area was performed in 2015. The Technical Memorandum detailing the Northshore System Extension Preliminary Investigation is attached in Exhibit M.

There are very few properties remaining in the area that could be subdivided, or grouped to create a development. For any new development that would require extension of sewer mains, the property owners will be required to enter into a developer extension agreement with the District whereby the owner becomes responsible for all design, construction, and inspection costs associated with the new branch sewer line. At the time the new line goes into operation, the District will be granted ownership of, and operation and maintenance responsibilities for all new sewer facilities associated with the development.

It should be noted that, in accordance with the Interlocal Agreement for Sewer Services with the City of Bellingham, connection of any parcel created since 2005 to the District’s sewer system requires the approval of the City.

#### C. Potential Sewer Service in the South Bay / Blue Canyon Study Area

The District has no existing sewer facilities in the South Bay / Blue Canyon Study Area. The District will consider extending public sewer on an “as-needed” basis in those areas within the District boundaries. Extensions would be funded by developers requesting such extensions, or by LID/ULID should a petition of the affected population be submitted to the District. A feasibility study was prepared in 2006 that included this Study Area. The feasibility study was incorporated in the District’s 2008 Comprehensive Sewer Plan because it included an area-wide analysis with comprehensive planning information. However, since the details for the

### III. FUTURE SEWER SERVICE REQUIREMENTS

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implementation of serving this Study Area are not yet defined, facilities to service this area will be addressed in the future. Whatcom County Code 20.82.030(4) states that "... Sewer lines shall not be extended to serve lots outside urban growth areas unless such extensions are 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 ..." A project to extend sewer here would require obtaining a Conditional Use Permit and approval of the Hearing Examiner if allowed under the restrictions set forth in WCC 20.82.030(4). Should a project proceed, additional analyses will be prepared and a facility plan / engineering report will be submitted for the requisite approvals.

## V. FUTURE IMPROVEMENT PROJECTS

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### B. Future Administrative, Financial and Planning Improvements

#### 1. Hazard Mitigation Plan For District Wastewater Facilities

Since 2000, the Federal government has required local communities to have an approved mitigation plan in place to be eligible for the Hazard Mitigation Grant Program (HMGP) funds (44CFR201.6). Jurisdictions without an approved plan will not be eligible for future mitigation financial assistance. One strategy for the plan development is for local communities to work together to create a Multi-jurisdictional Hazard Mitigation Plan. This approach is advantageous and efficient in that a single, comprehensive plan would then address the concerns of all jurisdictions with the same countywide hazards. To that end, the District ~~has will work~~, in conjunction with Whatcom County Division of Emergency Management, ~~to developed~~ ed a hazard mitigation plan in compliance with federal requirements.

~~Preparation and a~~ adoption of this hazard mitigation plan ~~will ensure~~ s compliance with federal regulations. In addition, the development and adoption of an approved hazard mitigation plan ~~will ensure~~ s that the District is eligible for future mitigation financial assistance under the Hazard Mitigation Grant Program.

#### 2. Update Existing Emergency Response Plan

Currently, the District has an existing Emergency Response Plan which outlines District priorities and activities in response to an emergency event such as; natural disasters, vandalism, catastrophic equipment failures, etc. As a part of this activity, the District will update the existing Emergency Response Plan, as necessary, to ensure compliance with applicable federal regulations and the requirements of the Department of Homeland Security. The District will continue to conduct emergency response training exercises and drills with staff to enhance emergency preparedness.

#### 3. Maintenance Management Program Development

In 2002, the District began developing a system-wide Maintenance Management Program to move from reactive maintenance to preventative maintenance, better manage work flow processes, and aid in planning, administration, and operation and maintenance record keeping for the District's facilities. To date, the database and maps includes information regarding pipe size, material and lengths for water and sewer mains; schematic locations of District facilities including mains, manholes, pump stations, PRVs and reservoirs (water). Since 2002, maintenance activities have been logged in to the system as they are completed.

The District has completed adding the watershed boundary, customer billing information, and facility specifications. All sewer assets have installation dates and the District has completed inspections, mapping and overall condition index (OCI) determinations for most facilities in the Geneva and North Shore areas. As a part of this ongoing development program, the District will continue to augment and update the Maintenance Management program to include the following:

- a. parcel maps (working with Whatcom County),
- b. updated aerial photo layers (from Whatcom County),
- c. archival operation and maintenance record information, 80%complete



## V. FUTURE IMPROVEMENT PROJECTS

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- d. link sewer main video inspections
- e. facility inspections (manholes, sewer pump stations) - Sudden Valley
- f. mapping-grade GPS facility locations - Sudden Valley
- g. facility overall condition index (OCI) for manholes, mains, pump stations - Sudden Valley

### 4. Lake Whatcom Watershed Committee (WRIA 1)

As a part of this planning project, the District's Manager will participate in a steering and planning committee to look at watershed-wide issues affecting water quality for people and fish. The Committee will plan cooperative actions which will address the watershed water quality. This group process will result in more collaborative planning approach to water issues, including drinking water sources, and storm water runoff.

~~As of this time, there is no adopted Ww~~ water quality management planning under the Federal Water Pollution Control Act as amended for this area has taken the form of the identification of the TMDLs for Lake Whatcom and the water quality implementation strategy outlined in the Lake Whatcom Watershed Total Phosphorus and Bacteria Total Maximum Daily Loads: Volume 2. Water Quality Improvement Report and Implementation Strategy report, as approved by the EPA in April, 2016. ~~The District will comply with such a plan once it is developed and adopted.~~

LWWSD does not discharge to Lake Whatcom so does not have a wasteload allocation. The District does have an interest in the effective implementation of the plan and works with the city of Bellingham and Whatcom County on the TMDL implementation strategy.

### 5. Sewer Service Rate Increases

The District contracts with a financial consultant about every 5 years to prepare a comprehensive rate study, with interim updates every 2 to 3 years, and implements the recommended incremental rate increases. The last rate study update was completed in 2016, with the next comprehensive rate study scheduled to begin 2020.

## C. Future Capital Improvement Projects

### 1. Pump Station Upgrades – Ongoing

As mentioned above, the District has completed several pump station replacements and upgrades in the last six years (see Table 2). The District plans to continue replacing and/or upgrading one or two pump stations per year as needed. The proposed schedule for these replacements or upgrades are included in the District's Capital Improvement Plan (see Exhibit K).

Replacement of the aged control, telemetry and pump equipment will result in increased reliability, reduced emergency operator call-outs, reduced equipment operation costs and prevention of sewage overflows. Each pump station will be evaluated to determine the specific upgrades required but at least will normally include new pumps, new controls and new telemetry equipment.

Full 2020 Sewer Comp Plan Update can be found on the District Website at this link:

<https://lwwsd.org/resources/comprehensive-sewer-plan/>

**LAKE WHATCOM WATER AND SEWER DISTRICT  
RESOLUTION NO. 866**

A Resolution of the Board of Commissioners  
Adopting the Comprehensive Sewer Plan 2020 Update

**WHEREAS**, the Lake Whatcom Water and Sewer District ("District") is a special purpose district authorized under Title 57 Revised Code of Washington ("RCW"); and

**WHEREAS**, the District owns and operates a public sewer collection and conveyance system located within its service boundaries; and

**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 comprehensive sewer 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 Washington State Environmental Policy Act ("SEPA") environmental checklist was prepared for the District's Comprehensive Sewer Plan 2020 Update and the District SEPA official made a Determination of Non-significance on February 20, 2020; and

**WHEREAS**, the SEPA environmental checklist and Determination of Non-significance for the District's Comprehensive Sewer Plan 2020 Update was distributed to all governmental agencies and tribes legally entitled to such distribution on February 20, 2020; and

**WHEREAS**, notice of said Determination of Non-significance was published in the Bellingham Herald on February 20, 2020; and

**WHEREAS**, no written comments on the Determination of Non-significance were received by the District within the required time published for comments; and

**WHEREAS**, the District's Comprehensive Sewer Plan 2020 Update was distributed for review to the Washington State Department of Ecology, Whatcom County Public Works, Planning and Development Services and Health departments, and the city of Bellingham on February 21, 2020; and

**WHEREAS**, comments were received from Washington State Department of Ecology and Whatcom County Planning and Development Services Department necessitating certain minor revisions to the Plan, which have been presented to the Board for their review; and

**WHEREAS**, the District has received approval of the revised Comprehensive Sewer Plan 2020 Update from the Washington State Department of Ecology, the Whatcom County Engineer, and the Whatcom County Health Officer; and

**WHEREAS**, the foregoing recitals are a material part of this Resolution;

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Commissioners of the Lake Whatcom Water and Sewer District, Whatcom County, Washington that the Comprehensive Sewer Plan 2020 Update, attached hereto as Exhibit "A", for the provision of sewer services for the Lake Whatcom Water and Sewer District, including a capital construction and improvement plan, is hereby adopted by the Lake Whatcom Water and Sewer District and shall be forwarded for approval to the Whatcom County Council.

**ADOPTED** by the Board of Commissioners of Lake Whatcom Water and Sewer District, Whatcom County, Washington, at a regular meeting thereof, on the 10<sup>th</sup> day of June, 2020.

\_\_\_\_\_  
Laura Abele, Commissioner

\_\_\_\_\_  
Todd Citron, Commissioner

\_\_\_\_\_  
Bruce Ford, Commissioner

\_\_\_\_\_  
Leslie McRoberts, Commissioner

\_\_\_\_\_  
John Carter, Commissioner

\_\_\_\_\_  
Approved as to form  
District legal counsel


**EXHIBIT "A"**  
**LAKE WHATCOM WATER AND SEWER DISTRICT**  
**COMPREHENSIVE SEWER PLAN**  
**2020 UPDATE**

DRAFT



**AGENDA  
BILL  
Item 5.B**

**Resolution No. 867  
Approval of 2020-2024 Lake Whatcom  
Management Program Work Plan**

DATE SUBMITTED:	June 1, 2020	MEETING DATE:	June 10, 2020
TO: BOARD OF COMMISSIONERS	FROM: Justin Clary, General Manager		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. Resolution No. 867 2. Lake Whatcom Management Program 2020-2024 Work Plan		
TYPE OF ACTION REQUESTED	RESOLUTION <input checked="checked" type="checkbox"/>	FORMAL ACTION/ MOTION <input type="checkbox"/>	INFORMATIONAL /OTHER <input type="checkbox"/>

**BACKGROUND / EXPLANATION OF IMPACT**

Due to observed deterioration of the water quality in Lake Whatcom, the Lake Whatcom Water and Sewer District, city of Bellingham, and Whatcom County entered into an interlocal agreement in 1998 that formally created the Lake Whatcom Management Program. The Program's primary goal is to improve lake water quality by jointly implementing programs affecting the Lake Whatcom watershed.

Since its creation, the Program partners have developed and implemented four five-year work plans focused on the following program areas: land preservation; stormwater; land use; monitoring and data; hazardous materials; recreation; aquatic invasive species; utilities and transportation; education and engagement; and administration. With the most recent work plan (2015-2019) approaching expiration, the interjurisdictional coordinating team (ICT) of the Program began development of a successor work plan in June 2019. The outcome of the ICT's effort (the attached 2020-2024 work plan) has been developed to reflect current conditions and regulatory requirements while maintaining the Program's overarching goal of continued improvement of lake water quality. The work plan also went through a significant public comment period, with comments incorporated, as appropriate, into the revision of the attached work plan.

**FISCAL IMPACT**

No fiscal impacts are anticipated beyond the costs of implementation of actions defined in the work plan that have already been built into the 2020 Budget.

**RECOMMENDED BOARD ACTION**

Staff recommends the Board adopt the resolution as presented.

**PROPOSED MOTION**

A recommended motion is:

“I move to adopt Resolution No. 867 as presented.”

**LAKE WHATCOM WATER AND SEWER DISTRICT  
RESOLUTION NO. 867**

A Joint Resolution of Bellingham City Council, Whatcom County Council, and Lake Whatcom  
Water and Sewer District Board of Commissioners Adopting the Lake Whatcom Management  
Program 2020-2024 Work Plan

**WHEREAS**, in 1992 and again in 1998 the City of Bellingham, Whatcom County and the precursor to the Lake Whatcom Water and Sewer District jointly formed the Lake Whatcom Management Program and thereby declared their intention to work together to protect and manage Lake Whatcom; and

**WHEREAS**, the three Lake Whatcom Joint Management Program jurisdictions have adopted four previous five-year plans that have provided an essential framework for program cooperation and implementation of joint activities and have resulted in improved water quality and environmental conditions at the lake; and

**WHEREAS**, the Lake Whatcom Management Program 2020-2024 Work Plan defines the major activities and investments needed to continue improving and protecting water quality in the lake and watershed health during the next five years through ten establish program areas: land preservation, stormwater, land use, monitoring and data, hazardous materials, recreation, aquatic invasive species, utilities and transportation, education and engagement, and administration;

**NOW, THEREFORE, BE IT RESOLVED THAT:**

The Board of Commissioners of the Lake Whatcom Water and Sewer District hereby adopt the Lake Whatcom Management Program 2020-2024 Work Plan as the framework for joint management of the lake and for achieving necessary milestones to improve water quality in the lake.

**ADOPTED** by the Board of Commissioners of Lake Whatcom Water and Sewer District, Whatcom County, Washington, at a special meeting thereof, on the 10<sup>th</sup> day of June, 2020.

\_\_\_\_\_  
Laura Abele, Commissioner

\_\_\_\_\_  
Todd Citron, Commissioner

\_\_\_\_\_  
Bruce Ford, Commissioner

\_\_\_\_\_  
Leslie McRoberts, Commissioner

\_\_\_\_\_  
John Carter, Commissioner

\_\_\_\_\_  
Approved as to form  
District legal counsel





Photo by K. Moran, 2014



Prepared by the Lake Whatcom  
Interjurisdictional Coordinating Team

# Lake Whatcom **Management Program** **2020-2024 Work Plan**

March 2020

# ACKNOWLEDGEMENTS

## Lake Whatcom Management Committee

Justin Clary, Lake Whatcom Water and Sewer District General Manager

Seth Fleetwood, City of Bellingham Mayor

Satpal Singh Sidhu, Whatcom County Executive

### Interjurisdictional Coordinating Team

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Cathy Craver, Whatcom County

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Whatcom County

Lake Whatcom Water and Sewer District

Sudden Valley Community Association

Washington State University Whatcom County Extension

Western Washington University Institute for Watershed Studies

Lake Whatcom Watershed Advisory Board



Lake Whatcom Management Program

[lakewhatcom.whatcomcounty.org](http://lakewhatcom.whatcomcounty.org)



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## PROGRAM OVERVIEW

### Introduction

Lake Whatcom plays an important role in the quality of life for Whatcom County residents. It is the drinking water source for over 100,000 people, a recreational destination for outdoor enthusiasts and provides valuable habitat for plants and animals unique to our region. Keeping the lake clean and its forests and ecosystems healthy is no small task. Watershed residents and visitors play a critical role in this effort through stewardship of this shared resource. Local organizations and governments work to promote stewardship and take cooperative action to restore water quality, protect environmental health and preserve healthy forests in the watershed.

The 2020–2024 Lake Whatcom Management Program Work Plan represents this coordinated endeavor, bringing together the planned efforts of the City of Bellingham, Whatcom County, and the Lake Whatcom Water and Sewer District and consolidating them in one place to ensure actions are efficient and effective. This document outlines the efforts that these local entities will implement over the next five years to further the goals of the Lake Whatcom Management Program (see page 4).



Lake Whatcom | Photo by T. Ward, 2018

### Statement from County Executive, City Mayor, District General Manager

*As new leaders of Whatcom County, the City of Bellingham, and the Lake Whatcom Water and Sewer District, we stand by our organizations' long-standing commitment to restore, protect, and preserve Lake Whatcom's water quality and ecological health.*

*This updated work plan builds on over two decades of coordinated work and an impressive list of on-the-ground projects that are fulfilling our commitments to make steady progress in protecting and improving the lake. We are committed to working with our staff and the community to accomplish the work identified in this work plan. Our partnership is strong, and we remain on schedule to achieve a clean and protected source of drinking water for people and a healthy habitat for wildlife.*



*Justin Clary*  
District General Manager



*Seth Fleetwood*  
Bellingham Mayor



*Satpal Singh Sidhu*  
County Executive



## PROGRAM OVERVIEW

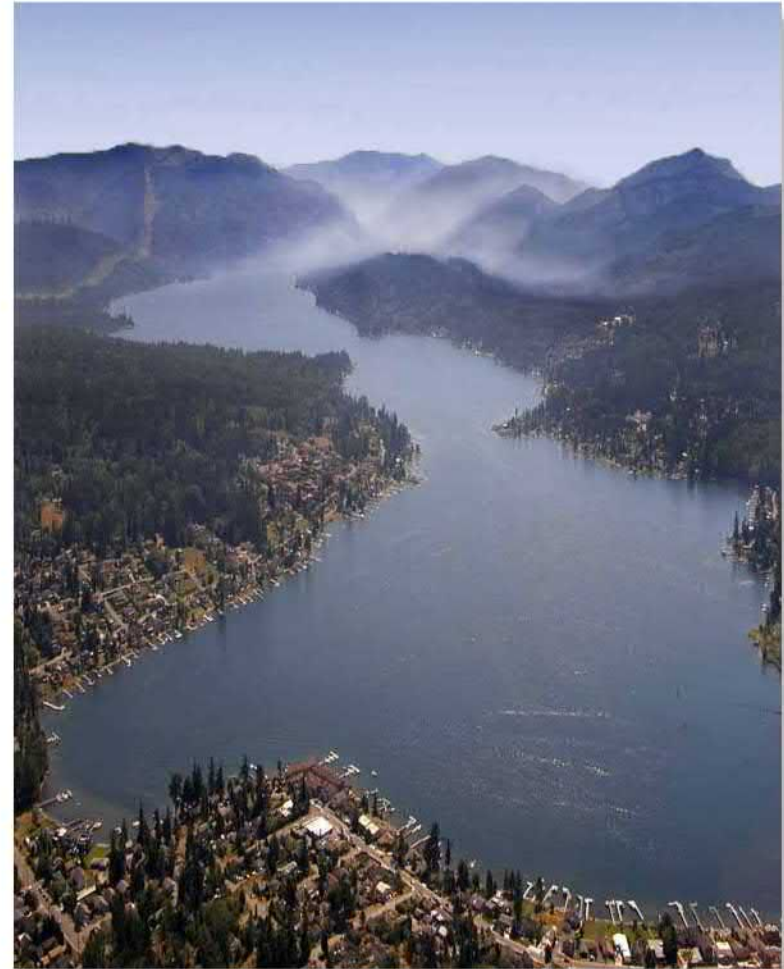
### A Comprehensive Approach

The Lake Whatcom Management Program (LWMP) had its beginnings in the 1980s and early 1990s, when deterioration of Lake Whatcom's water quality was documented and brought to the attention of agencies and the public. In response, a joint resolution was passed by the City of Bellingham, Whatcom County and the Lake Whatcom Water and Sewer District in 1992 to organize efforts to address the most serious threats to the watershed. This comprehensive approach to managing the lake became the basis of the LWMP, which was established by Interlocal Agreement in 1998.

The LWMP shares resources to apply the best available science, engage the most knowledgeable local experts and build the strongest coalition amongst all who enjoy the benefits of this shared natural resource. The program strives to ensure that public dollars are spent responsibly and to the greatest benefit of the community and our quality of life. The LWMP identifies threats to Lake Whatcom, eliminates them if possible and mitigates them as necessary. As new threats are identified, solutions to address them are incorporated into subsequent work plans.

Program focus has evolved and expanded over time. In the 1990s, threats from forest harvest and forest practices were a major concern. In 1998, reducing phosphorus in stormwater entering the lake became a primary focus when Lake Whatcom was placed on the state's list of polluted water bodies due to low dissolved oxygen levels. By 2012, concern over threats from invasive mussels led to a new collaborative Aquatic Invasive Species program.

Current management efforts are focused in ten program areas, comprehensively addressing watershed health. Work plans are developed by LWMP partners. The 2020–2024 Work Plan is the fifth plan to date. It will guide actions to reduce the amount of phosphorus reaching the lake and address other watershed issues over the next five years. Consistent with previous plans, the 2020–2024 Work Plan is organized by program areas, each with specific objectives and planned activities.



Lake Whatcom | Photo by M. Kjelstad, 2010

## PROGRAM OVERVIEW

### Watershed and Lake Facts

#### Population and Drinking Water Supply

- Lake Whatcom is the drinking water source for over 100,000 Whatcom County residents, which is about half the county's population.
- Lake Whatcom provides drinking water for the City of Bellingham, Lake Whatcom Water and Sewer District, several smaller water districts and associations and homes that draw water directly from the lake.
- The City of Bellingham withdraws water from the lake's middle basin through a 1,200-foot wooden pipeline that leads to the water treatment plant in Whatcom Falls Park.
- About 18,000 people live in the Lake Whatcom watershed (2018 estimate).
- Approximately 25% of the watershed population lives within the City of Bellingham and approximately 75% live outside city limits in unincorporated Whatcom County.



Lake Whatcom | Photo by K. Moran, 2014

#### Physical Characteristics

- Lake Whatcom is about ten miles long and just over one mile wide at its widest point.
- Lake Whatcom's total shoreline is about 30 miles long.
- Lake Whatcom's surface area is about 5,000 acres with 92% outside of city limits.
- Lake Whatcom is made up of three distinct basins that hold about 250 billion gallons of water.
- Lake Whatcom's natural outflow is to Whatcom Creek and Bellingham Bay.
- The City of Bellingham controls the lake level with a small dam at the outlet draining to Whatcom Creek. When the lake level reaches 314.94 feet above mean sea level the city is obligated to release water through the control dam.
- Lake Whatcom's watershed covers about 56 square miles (36,000 acres) with 97% outside of city limits.
- Lake Whatcom is fed by 36 streams (many do not flow year-round). Major streams include Silver Beach, Carpenter, Olsen, Smith, Anderson, Brannian, and Austin Creeks.
- Lake Whatcom also periodically receives water diverted from the Middle Fork of the Nooksack River by the City of Bellingham to meet water supply needs.
- Lake Whatcom's depth ranges from 15 feet deep to 334 feet deep.



## PROGRAM OVERVIEW

### Program Goals

The Lake Whatcom Management Program is guided by the general goals established in the 1992 Joint Resolution of the City of Bellingham, Whatcom County, and the Lake Whatcom Water and Sewer District. These are:

- To recognize Lake Whatcom and its watershed as the major drinking-water reservoir for the county and develop public and private management principles for the lake and watershed consistent with a drinking water reservoir environment.
- To protect, preserve and enhance water quality and manage water quantity to ensure long-term sustainable supplies for a variety of uses, with priority placed on domestic water supply. Management programs and actions will be made in recognition of existing contractual agreements and potential for review and renegotiation in light of these goals.
- To prioritize protection over treatment in managing Lake Whatcom and its watersheds. Management actions shall reflect a long-term view of replacement or treatment costs.
- To manage water quantity to sustain long-term efficient use of the water for beneficial uses within the county that are consistent with a drinking-water reservoir, and recognize the integral link with the Nooksack River and associated water resource concerns.
- To ensure that opportunities for public comment and participation are provided in policy and management program development, and to promote public awareness and responsible individual actions.
- To promote learning, research, and information opportunities which better our understanding of the watershed system, the impacts of activities, and the benefits and potentials of policies implemented.



Lake Whatcom | Photo by T. Ward, 2017



## PROGRAM OVERVIEW

### Addressing the Challenges

The Lake Whatcom Management Program (LWMP) addresses the main challenges facing the lake and its watershed to meet long term management objectives for watershed health. These objectives are met through actions by residents, visitors and local governments.

#### Objective:

Water quality in the lake is restored to protect human health and support a diverse ecosystem.

Clean, safe drinking water is available for over 100,000 Whatcom County residents, and its source is protected from pollution.

High quality low impact recreational opportunities around the lake are available, accessible and managed in a way that preserves the health of forests and waterways.

#### Management Challenge:

Runoff from developed areas entering the lake changes water chemistry and disrupts the natural balance of the ecosystem. Nutrients in the runoff feed algae blooms that affect native species and rob the water column of oxygen, creating poor water quality that threatens the health of aquatic species. Bacteria in stream runoff are a potential threat to the health of humans and pets coming into contact with the lake and streams.

Nutrients in polluted runoff lead to algae growth that can clog intake structures and interfere with water treatment processes. When such impacts occur, providing an adequate supply of drinking water requires the use of additional treatment strategies for both public and private systems. This increases costs and decreases efficiency of water supply systems.

Recreation throughout the watershed, from boating to hiking to mountain biking, can damage forests, harm water quality, cause erosion, disturb critical wildlife habitat, and introduce invasive species. Recreation activities that occur in environmentally sensitive areas, such as wetlands or steep slopes, can change the landscape in ways that result in long-term environmental damage. While most recreational activities in the watershed contribute positively to our community and our quality of life, unmanaged uses can threaten our shared enjoyment of the lake.

#### Our Response:

LWMP actions prevent, capture, and reduce the amount of nutrients and bacteria in runoff entering the lake. Large-scale engineering projects, small-scale pollution prevention efforts, and one-on-one assistance to residents all help reduce pollution. In addition, regulations and forest management strategies are designed to ensure that land use activities do not further exacerbate these problems.

As water purveyors, the City of Bellingham and the Lake Whatcom Water and Sewer District plan, operate and maintain treatment systems that remove impurities and provide clean, safe tap water to their customers. LWMP partners monitor water quality in the lake, in tributary streams, and from the tap. They also respond to spills, collect hazardous materials from residents and construct stormwater treatment facilities to capture pollution before it enters the lake.

The LWMP recognizes the overlap between recreation and land preservation, which rely on each other to succeed. Preserved land that can support low-impact recreation is made accessible to the public. Recreational activities that adversely impact the watershed's natural functions are discouraged or prevented. Impacts from boating on the lake (e.g., fuel spills, invasive species transport, and shoreline erosion from wakes) are managed by providing adequate boater amenities and educating boaters and visitors about these risks.

## PROGRAM OVERVIEW

### Addressing the Challenges (continued)

#### Objective:

A high quality of life is maintained for our community and watershed residents.

#### Management Challenge:

The Lake Whatcom watershed is a desirable place to live and visit because of its beauty and access to recreational opportunities. The ability to boat, swim and enjoy the view of bright blue water contribute to a high quality of life enjoyed by both the community as a whole and watershed residents. Impacts to the lake that threaten those uses, including poor water quality, invasive species, unpleasant odors or unusable docks or beaches, could negatively affect quality of life and watershed property values.

#### Our Response:

All aspects of the LWMP work together to protect watershed health and water quality which in turn protects quality of life and property values. Watershed residents play an important role. LWMP success depends on their stewardship. The LWMP provides incentives and assistance to help residents reduce their impact. Property owners are encouraged to install water quality landscape improvements through the Homeowner Incentive Program. Residents are provided a guide to watershed living that gives them information and tools to enjoy their property without contributing to ongoing problems. The city and county have adopted rules for development in the watershed that ensure residents can enjoy their property while protecting the lake.

All of the uses and benefits of the lake are protected from aquatic invasive species infestations.

Aquatic invasive species (AIS) pose a significant long-term risk to all uses of Lake Whatcom. The introduction of zebra and quagga mussels would have highly detrimental impacts to water quality, recreation and property values. These tiny mussels could encrust pipes resulting in costly impacts to drinking water systems. Invasive aquatic plants can spread quickly throughout the lake, outcompeting native species, and resulting in blooms impacting shorelines, water access, and fishing. AIS are not easily controlled or eliminated. An infestation would likely create a permanent change in the lake with unknown consequences.

The LWMP has had a dedicated AIS prevention program since 2012. Throughout the boating season, inspectors work throughout the watershed to prevent the introduction of AIS and to educate boaters on their risk. This team of trained specialists provides on-site inspections for watershed residents and work at boat launches around the lake. If needed, the AIS crew uses specialized equipment to decontaminate boats before they enter the lake. These inspectors also staff boat launches at other lakes in the county to protect Lake Whatcom from AIS that may be introduced, or are already present, in those waterbodies.



## PROGRAM OVERVIEW

### Focus on Phosphorus

Lake Whatcom Management Program (LWMP) activities focus on reducing phosphorus levels in Lake Whatcom in response to federal Clean Water Act requirements and the state Total Maximum Daily Load (TMDL) process. The TMDL plan sets a target for phosphorus reduction and a timeline for achieving the target. In response to this process, phosphorus has become a major guiding issue for the five-year work plans over the past decade.

#### What is Phosphorus?

Phosphorus is a naturally occurring nutrient that stimulates plant growth and is essential for animal and plant life.

#### Where does phosphorus come from?

Phosphorus is an element found in soils, sediments and organic material. Phosphorus is transported by water and air. Specific sources include: erosion, fertilizers and pesticides, organic material (e.g., leaves, grass clippings, and other compost), animal waste, sewage effluent, and phosphorus-based soaps and detergents.

#### How does phosphorus get into the lake?

Phosphorus is primarily transported to the lake through stormwater runoff. On natural landscapes, stormwater slowly seeps into the ground where it is filtered by forests and soils. Human activity in developed landscapes increases the amount of phosphorus in stormwater above natural levels. Runoff flowing across surfaces such as roads, roofs, driveways and yards picks up pollutants like phosphorus and flows directly into the nearest ditch or storm drain leading to the lake.

#### Why is phosphorus a problem?

Phosphorus promotes algal growth. When algae die, the decomposition process depletes oxygen in the lake affecting the aquatic ecosystem and releasing additional phosphorus from lake sediments. Algae also impact water quality taste and odor and add to water treatment costs. Some types of algae are toxic and can cause health issues for swimmers and pets.

The City of Bellingham and Whatcom County have been working together for over a decade to protect Lake Whatcom and reduce phosphorus loading to the lake by:

- Adopting stormwater and land use regulations to reduce phosphorus pollution.
- Constructing, operating, and maintaining stormwater treatment facilities.
- Providing residential retrofit programs to reduce phosphorus pollution from existing developed lots.
- Preserving land in the watershed that might otherwise be susceptible to development or other land disturbance activities.

The city and county are required to make continued progress toward TMDL targets through their National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permits. The current permits are in effect from August 1, 2019 – July 31, 2024 and include specific actions that the city and county are required to complete during this permit cycle.

These required actions have been incorporated into this work plan and noted with (TMDL REQUIRED). **See the table on pages 30-31 for a complete listing of TMDL required activities with a timeline.**

#### What about Bacteria?

While phosphorus in stormwater entering the lake is a focus of many efforts of the LWMP, addressing bacteria flowing into streams that lead to the lake is also an important component of watershed protection and restoration.

Bacteria levels have been found to exceed water quality standards in eleven tributaries to Lake Whatcom, many of which flow through developed areas. The Department of Ecology tests for specific types of bacteria that are commonly associated with residential areas, from sources like leaking septic systems, sewer system overflows, and pet and livestock waste left exposed to rainfall. The TMDL requires that the city and county address the sources of these pollutants to protect public health in and around these streams and their outlets.

Fortunately, many of the practices employed to reduce phosphorus also help to reduce bacteria entering the streams or the lake. These include improvements that filter stormwater, encouraging residents to manage animal waste at home and in public spaces, and educating homeowners about proper maintenance of septic systems.

## PROGRAM OVERVIEW

### Program Development & Accomplishment Timeline

1992 - 1999	2000 - 2004	2005 - 2009	2010 - 2014	2015 - 2019
<p><b>1992:</b> Joint Resolution adopted to establish common goals for Lake Whatcom watershed</p> <p><b>1992:</b> City stormwater capital improvement program began</p> <p><b>1993:</b> Sudden Valley Community Association began density reduction program to remove 1,400 potential dwelling units</p> <p><b>1998:</b> Lake Whatcom Management Program (LWMP) established by Interlocal Agreement</p> <p><b>1998:</b> Lake Whatcom placed on Washington's list of polluted water bodies due to low dissolved oxygen levels; Tributary creeks listed for high bacteria levels; Total Maximum Daily Load (TMDL) process began.</p> <p><b>1999:</b> County Water Resource Protection Overlay District and Stormwater Special District established</p> <p><b>1999:</b> LWMP 1999 Work Plan adopted</p>	<p><b>2000:</b> LWMP 2000-2004 Work Plan adopted</p> <p><b>2000:</b> City stormwater capital improvement program expands to address phosphorus</p> <p><b>2000:</b> Interjurisdictional Coordinating Team (ICT) created to coordinate activities and programs between jurisdictions</p> <p><b>2001:</b> City adopted first land use regulations for new development on properties that drain to Basin 1 (Lake Whatcom Reservoir Regulatory Chapter [BMC 16.80])</p> <p><b>2001:</b> City stormwater utility established; provided funding for Lake Whatcom protection</p> <p><b>2001:</b> City Lake Whatcom Property Acquisition Program began</p> <p><b>2001:</b> Watershed Advisory Board established</p> <p><b>2002:</b> County rezone reduced 1,800 potential dwelling units</p>	<p><b>2005:</b> LWMP 2005-2009 Work Plan adopted</p> <p><b>2005:</b> City and county passed phosphorus fertilizer ban</p> <p><b>2005:</b> City and county banned boats with carbureted 2-stroke engines</p> <p><b>2006:</b> County stormwater capital improvement program with focus on phosphorus treatment began</p> <p><b>2008:</b> Lake Whatcom Policy Group formed</p> <p><b>2008:</b> City Residential Stormwater Retrofit Program began</p> <p><b>2009:</b> City amended the Lake Whatcom Reservoir Regulatory Chapter</p>	<p><b>2010:</b> LWMP 2010-2014 Work Plan adopted</p> <p><b>2011:</b> Homeowner Incentive Program launched</p> <p><b>2012:</b> Aquatic Invasive Species Prevention Program began</p> <p><b>2013:</b> County amended Title 20 to create the Lake Whatcom Watershed Overlay District to reduce impacts from development and land use activities</p> <p><b>2014:</b> Sudden Valley Community Association joined Policy Group</p> <p><b>2014:</b> Department of Natural Resources (DNR) finalized reconveyance of 7,800 acres in the watershed to Whatcom County Parks</p>	<p><b>2015:</b> LWMP 2015-2019 Work Plan adopted</p> <p><b>2016:</b> Lake Whatcom TMDL for phosphorus and fecal coliform approved by Environmental Protection Agency (EPA)</p> <p><b>2016:</b> New phosphorus loading model developed</p> <p><b>2017:</b> Homeowner Incentive Program revised and expanded</p> <p><b>2019:</b> Began update of lake response model</p> <p><b>2019:</b> County Lake Whatcom stormwater utility established to provide funding for Lake Whatcom protection</p> <p><b>2019:</b> City and county National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permits issued (TMDL response requirements included in the new permit)</p>



## PROGRAM OVERVIEW

### Reporting Metrics

Reporting metrics are data Lake Whatcom Management Program (LWMP) partners use to track the progress of programs and on-the-ground activities or to quantify communication and outreach efforts. Reporting metric updates will be provided in annual progress reports and the five-year accomplishments report.

Work plan reporting metrics are not intended to provide an overall evaluation of Lake Whatcom watershed health or water quality trends. This type of long-term evaluation occurs separately through efforts such as Western Washington University's Institute for Watershed Studies Lake Whatcom Monitoring Project.

Different program areas measure progress in different ways. A comprehensive Lake Whatcom Watershed Baseline Survey was established in 2018 to help evaluate the effectiveness of outreach efforts and to inform future work plan priorities. This survey will be repeated every five years and the results will provide information on watershed residents' attitudes, knowledge and behaviors. When applicable to specific activities included in this work plan, key metrics from this survey are also included as reporting metrics. Examples include:

- The proportion of watershed residents who have used alternative methods of transportation in the past year.
- The proportion of watershed residents who are knowledgeable about proper hazardous materials disposal.
- The proportion of watershed residents who are knowledgeable about AIS and compliance with inspection requirements.

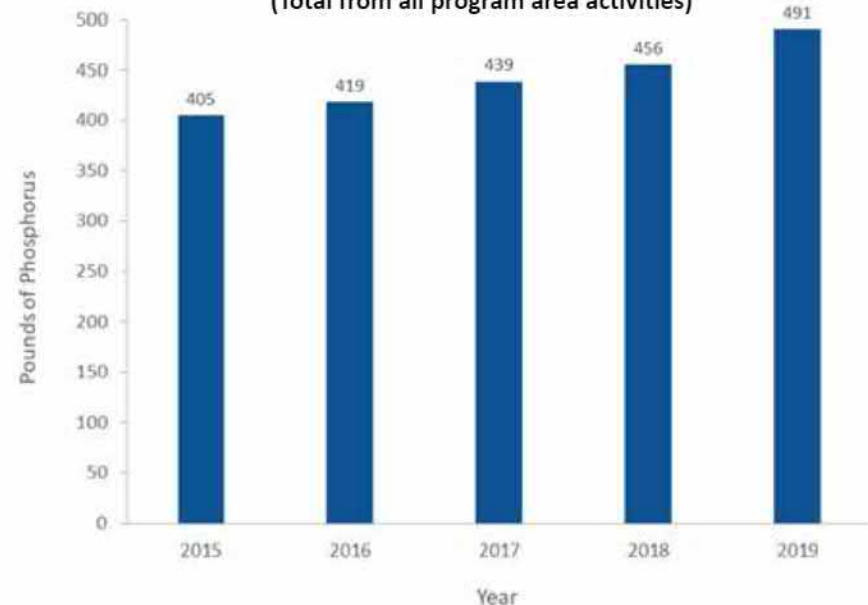
Progress made in our stormwater program area is demonstrated by tracking efforts by the City of Bellingham and Whatcom County to meet Total Maximum Daily Load (TMDL) targets for reducing phosphorus and bacteria loading to the lake. Cumulative efforts to date (2004 to 2019) have resulted in a reduction of approximately 491 pounds of phosphorus per year entering Lake Whatcom (15% of current TMDL target amount of 3,150 pounds of phosphorus per year by 2066\*). Over the next five years, the activities outlined in this plan will accomplish additional phosphorus reductions while also reducing bacteria levels in tributaries.

\*Target is subject to change pending modeling results.

Several new reporting metrics have been included in this work plan to better quantify progress or to provide more information regarding on-the-ground activities or changes in the Lake Whatcom watershed. One of these new metrics will estimate the water quality benefits from land preservation efforts by providing an estimate of the maturity of vegetation on each of the protected parcels. The functional status of protected watershed properties will be assigned to one of three categories based on the maturity of the site's vegetation: early succession (first nine years of restoration), mid-succession (10 to 30 year forested), or mature forest function (beyond 30 years).

Other metrics have been carried over from the last work plan and aim to provide us with ongoing information regarding trends in the watershed. Some of these trends inform work plan priorities while others provide interesting information regarding the changes in the watershed. Examples include our ongoing efforts to reduce the number of pounds of phosphorus entering Lake Whatcom (Figure 1) and the number of watercraft inspections for aquatic invasive species that have been conducted between 2015 and 2019.

**Figure 1: Pounds of phosphorus reduced per year  
(Total from all program area activities)**



# PROGRAM OVERVIEW

## Program Areas and Objectives

The Lake Whatcom Management Program (LWMP) focuses efforts in ten program areas. The 2020-2024 Work Plan uses the same program areas as the previous five-year plan. As LWMP partners, the City of Bellingham, Whatcom County, and the Lake Whatcom Water and Sewer District are the leads responsible for accomplishing the work described in this plan.

Additional partners play important roles to help achieve work plan goals. Key partners include: Sudden Valley Community Association, Washington State Departments of Ecology and Natural Resources, WSU Whatcom County Extension, Watershed Advisory Board members, Western Washington Institute for Watershed Studies, Whatcom Conservation District, and Whatcom Land Trust.

### 1. Land Preservation

Preserve and restore land that might otherwise be susceptible to development or other land disturbance to protect water quality and fish and wildlife habitat.

### 2. Stormwater

Protect and restore water quality in Lake Whatcom and its tributaries by using best practices to collect, treat, and manage stormwater runoff from developed areas throughout the watershed.

### 3. Land Use

Prevent water quality and quantity impacts from new development, redevelopment, and forest practices.

### 4. Monitoring & Data

Collect and manage data to increase our understanding of water quality and pollution sources, reduce uncertainty in the Lake Whatcom loading and response models, and guide management decisions.

### 5. Hazardous Materials

Prevent water quality impacts associated with improper storage and handling of hazardous materials, and ensure that spill prevention and response programs adequately protect water quality.

### 6. Recreation

Provide access to recreational opportunities that are consistent with water quality goals.

### 7. Aquatic Invasive Species

Prevent new aquatic invasive species (AIS) introductions to Lake Whatcom and minimize impacts associated with established invasive species.

### 8. Utilities & Transportation

Prevent water quality and quantity impacts from water, sewer, and transportation systems.

### 9. Education & Engagement

Educate and engage watershed residents and visitors to promote and facilitate the adoption of behaviors that protect water quality.

### 10. Administration

Implement the Lake Whatcom Management Program Work Plan and provide opportunities for public input.



## PROGRAM AREA

### Land Preservation

**OBJECTIVE:** Preserve and restore land that might otherwise be susceptible to development or other land disturbance to protect water quality and fish and wildlife habitat.

**2020-2024  
Estimated Investments:  
\$19.5 million**



The Land Preservation and Recreation program areas share two important objectives: protection of the watershed's water quality and provision of recreational opportunities in the watershed. These objectives are front and center for both of the program areas; however, each has a different emphasis. Land Preservation actions primarily seek to protect water quality, with an additional objective of providing for passive recreational opportunities where appropriate.

#### 1.1 Property Protection

Purchase property or use other measures, such as conservation easements and donations, to prevent development and other land use disturbances that degrade the natural functions of the watershed.

1.1.1. Purchase watershed properties based on evaluation criteria and availability.

#### 1.2 Property Management

Manage watershed properties to improve the watershed's natural functions that protect water quality and fish and wildlife habitat.

1.2.1. Implement management plans that address forestry, recreation (facilities, trails, roads), and vegetation (planting and maintenance) management needs for all city and county properties.

#### *Reporting Metrics:*

- Number of development units removed from the watershed per year
- New acres acquired or otherwise protected per year
- Total cumulative acres in protected status updated annually
- Acres in preservation program that are in early succession (0-9 years old), in mid-succession (10-30 years old), and mature forest (>30 years old) updated every five years

## PROGRAM AREA

### Stormwater

**OBJECTIVE:** Protect and restore water quality in Lake Whatcom and its tributaries by using best practices to collect, treat, and manage stormwater runoff from developed areas throughout the watershed.

**2020-2024  
Estimated Investments:  
\$16.9 million**



The Lake Whatcom Management Program (LWMP) addresses stormwater pollution by working with landowners throughout the watershed and experts in the fields of engineering and water chemistry. Strategies include preventing pollution at its source, filtering it through native soils and vegetation, and treating it using engineered stormwater facilities and other emerging technologies.

#### 2.1 Capital Improvements

Construct and retrofit capital facilities to reduce water quality and quantity impacts associated with stormwater runoff.

- 2.1.1. Construct capital stormwater facilities in accordance with capital improvement plans adopted by the City of Bellingham and Whatcom County as part of ongoing watershed-scale planning efforts (TMDL REQUIRED).
- 2.1.2. Complete an evaluation of the effectiveness of built stormwater treatment and flow control facilities, and an assessment of overall performance in reducing phosphorus and bacteria (TMDL REQUIRED).
- 2.1.3. Develop retrofit plans for existing facilities and program projects for design and construction in accordance with resources, budget, and need (TMDL REQUIRED).
- 2.1.4. County will complete two subwatershed master plans to identify specific strategies for target areas.
- 2.1.5. Update capital improvement project list annually (TMDL REQUIRED).
- 2.1.6. Pursue funding opportunities, including grants, for projects identified in capital or retrofit list(s).

#### 2.2 Residential Stormwater Solutions

Address unmanaged runoff and phosphorus from private properties around Lake Whatcom.

- 2.2.1 Provide technical and/or financial assistance for residential-scale retrofits of private property that result in phosphorus- or flow-limiting projects through the Homeowner Incentive Program (HIP) or similar programs that encourage voluntary stewardship by landowners.
- 2.2.2 Evaluate and develop neighborhood-scale retrofit projects in public rights-of-way and community space.



## PROGRAM AREA

### Stormwater

**OBJECTIVE:** Protect and restore water quality in Lake Whatcom and its tributaries by using best practices to collect, treat, and manage stormwater runoff from developed areas throughout the watershed.

**2020-2024  
Estimated Investments:  
\$16.9 million**



#### 2.2 Residential Stormwater Solutions (continued)

Address unmanaged runoff and phosphorus from private properties around Lake Whatcom.

- 2.2.3. Provide inspections and/or technical assistance to owners of private stormwater facilities and document performance toward water quality improvements for properly maintained systems.
- 2.2.4. Conduct annual private stormwater facility maintenance workshops to instruct owners about system needs and maintenance requirements (TMDL REQUIRED).
- 2.2.5. Develop and disseminate Lake Whatcom watershed-specific education and outreach messaging that encourages residents to act to protect water quality.

#### 2.3 Public Stormwater Facilities and Infrastructure

Operate, inspect, and maintain all public stormwater facilities and infrastructure.

- 2.3.1. Conduct regular inspection and maintenance of public stormwater facilities (TMDL REQUIRED).
- 2.3.2. Conduct infrastructure maintenance activities and research and evaluate water quality benefits for activities that may include, but are not limited to, enhanced street sweeping, catch basin cleaning, and permeable pavement sweeping.

#### 2.4 Integrate Water Quality Improvements Across Program Areas

Provide assistance to other program areas to achieve water quality improvement goals.

- 2.4.1. Provide technical assistance and consulting to other program areas and estimate water quality benefits gained through combined efforts and partnerships.

#### Reporting Metrics:

- Pounds of phosphorus reduced per year through activities in the following categories (TMDL REQUIRED):
  - Phosphorus treatment and flow control capital projects
  - Homeowner Incentive Program (HIP) improvements
  - Land use regulations
  - Operations and maintenance activities

## PROGRAM AREA

### Land Use

**OBJECTIVE:** Prevent water quality and quantity impacts from new development, redevelopment, and forest practices.

**2020-2024  
Estimated Investments:  
\$1.8 million**



The Lake Whatcom Management Program (LWMP) uses development regulations and assessments of forestry activities to minimize water quality impacts from development and logging.

#### 3.1 Development

Use development regulations to protect water quality.

- 3.1.1. Coordinate with Lake Whatcom partners when developing or revising development regulations.
- 3.1.2. Track all building and development activities in the watershed and make information accessible to agencies and the public through the Annual Buildout Report.
- 3.1.3. Monitor newly established Native Vegetation Protection Areas for five years as required by code to ensure success.
- 3.1.4. Provide outreach to watershed residents to increase understanding of and compliance with land use and stormwater regulations.

#### 3.2 Forestry

Assess forestry activities to verify that adverse water quality impacts are minimized.

- 3.2.1. Review reports written by the Interjurisdictional Committee on Department of Natural Resources (DNR) forestry activities.
- 3.2.2. Review and comment on private forest practice applications.



## PROGRAM AREA

### Land Use

**OBJECTIVE:** Prevent water quality and quantity impacts from new development, redevelopment, and forest practices.

**2020-2024  
Estimated Investments:  
\$1.8 million**



#### 3.2 Forestry (continued)

Assess forestry activities to verify that adverse water quality impacts are minimized.

- 3.2.3. Engage with private forest landowners to achieve consistency with the Lake Whatcom Landscape Plan.
- 3.2.4. Track permitted forest practice activities (including harvests, replanting, road building and abandonment, and herbicide spraying).
- 3.2.5. Collaborate with the DNR to improve mapping of forest practice activities in GIS to improve tracking capabilities.

#### **Reporting Metrics:**

- Acres of native vegetation protected as forest in perpetuity as a result of land use regulations
- Acres of developed surface treated by phosphorus-limiting Best Management Practices (BMPs) installed to meet land use regulation requirements
- Proportion of watershed residents who are knowledgeable of phosphorus-neutral development regulations measured every five years through the Lake Whatcom Watershed Baseline Survey
- Acres of timber harvested and replanted on forest lands per year
- Miles of road constructed/abandoned on forest lands per year
- Acres of land treated with herbicides on forest lands per year

## PROGRAM AREA

### Monitoring and Data

**OBJECTIVE:** Collect and manage data to increase our understanding of water quality and pollution sources, reduce uncertainty in the Lake Whatcom loading and response models, and guide management decisions.

**2020-2024  
Estimated Investments:  
\$3.4 million**



The Lake Whatcom Management Program (LWMP) works to implement studies, conduct monitoring, and improve modeling programs to further understand water quality and pollution sources in the Lake Whatcom watershed. Key efforts include lake and tributary monitoring, evaluating effectiveness of existing Best Management Practices (BMPs), updating load and response models, assessing on-site sewage (OSS) systems and managing data.

#### 4.1 Lake Whatcom Monitoring

Continue long-term baseline water quality monitoring in Lake Whatcom.

- 4.1.1. Contract with Western Washington University Institute for Watershed Studies to provide annual report regarding water quality and trends in Lake Whatcom and tributaries.
- 4.1.2. Evaluate monitoring results and receive updates on water quality trends.

#### 4.2 Tributary Monitoring

Continue long-term baseline monitoring of Lake Whatcom tributaries including the collection of data on total suspended solids, phosphorus and fecal coliform concentrations.

- 4.2.1. Provide annual data input for loading and response models.
- 4.2.2. Oversee and refine tributary monitoring contracts to improve hydrologic model.
- 4.2.3. Evaluate tributary monitoring results and determine policy implications.

#### 4.3 Stormwater Monitoring

Conduct monitoring to evaluate stormwater facilities for their effectiveness at removing phosphorus and fecal coliform.

- 4.3.1. Use data to develop recommendations to improve removal of phosphorus and fecal coliform by stormwater facilities; update Best Management Practices (BMPs) as needed.



## PROGRAM AREA

### Monitoring and Data

**OBJECTIVE:** Collect and manage data to increase our understanding of water quality and pollution sources, reduce uncertainty in the Lake Whatcom loading and response models, and guide management decisions.

**2020-2024  
Estimated Investments:  
\$3.4 million**



#### 4.4 Phosphorus Loading and Response Models

Continue to support data collection needed to improve accuracy of phosphorus loading and lake response models.

- 4.4.1. Update and recalibrate the phosphorus loading model with additional data and incorporate recommendations from third party review (TMDL REQUIRED).
- 4.4.2. Continue to collect high quality stream flow, water quality, and weather data.
- 4.4.3. Update lake response model to better define phosphorus reduction goals.

#### 4.5 On-Site Sewage System Impact Assessment

Conduct monitoring along Northshore Drive to assess on-site sewage systems (OSS, also called septic systems) in the watershed.

- 4.5.1. Conduct follow-up investigation to assess impacts on Lake Whatcom water quality.
- 4.5.2. Evaluate study results and discuss policy implications.

#### 4.6 Baseline Data

Manage and develop summaries of monitoring data and reports.

- 4.6.1. Review and summarize monitoring studies and reports to determine water quality trends and policy implications, and make information easily accessible to the public.
- 4.6.2. Maintain and update data catalog.
- 4.6.3. Track the status of Ecology-approved Quality Assurance Project Plans (TMDL REQUIRED).

#### Reporting Metrics:

- Number of lake water quality samples collected per year
- Number of tributary water quality samples collected per year
- Number of samples exceeding water quality standards

## PROGRAM AREA

# Hazardous Materials

**OBJECTIVE:** Prevent water quality impacts associated with improper storage and handling of hazardous materials and ensure that spill prevention and response programs adequately protect water quality.

**2020-2024  
Estimated Investments:  
\$225,000**



The Lake Whatcom Management Program (LWMP) promotes the proper management of hazardous materials to prevent pollution from entering stormwater systems. These efforts are especially important in the Lake Whatcom watershed to protect our community's drinking water source.

### 5.1 Hazardous Materials

Facilitate removal of hazardous materials from watershed residences.

- 5.1.1. Conduct hazardous materials collection event at locations in the watershed (TMDL REQUIRED).
- 5.1.2. Promote and provide education on proper use, storage and disposal of hazardous materials.

### 5.2 Spill Prevention and Response

Protect water quality by providing adequate spill prevention, response and disposal programs.

- 5.2.1. Continue to detect and remediate illicit discharges, connections, and improper disposal, including spills into the City of Bellingham stormwater system or Lake Whatcom Water and Sewer District sewer system.
- 5.2.2. Educate watershed residents and visitors on how to prevent and report spills.
- 5.2.3. Continue to record and respond to calls regarding illicit discharges or spills received via the stormwater hotline number.
- 5.2.4. Review spill response procedures and reporting protocols.
- 5.2.5. Conduct ongoing field staff training regarding spill prevention and response.

### Reporting Metrics:

- Pounds of all hazardous materials collected from watershed residents per collection event(s) (TMDL REQUIRED)
- Pounds of phosphorus-containing materials collected from watershed residents per collection event(s) (TMDL REQUIRED)
- Number of spills, illicit discharges, or hazardous material incidents reported in the watershed
- Proportion of watershed residents who are knowledgeable about proper hazardous materials disposal measured every five years through the Lake Whatcom Watershed Baseline Survey
- Proportion of watershed residents who are knowledgeable about how to report spills measured every five years through the Lake Whatcom Watershed Baseline Survey



# Recreation

**OBJECTIVE:** Provide access to recreational opportunities that are consistent with water quality goals.

**2020-2024  
Estimated Investments:  
\$4.7 million**



The Recreation and Land Preservation program areas share two important objectives: protection of the watershed's water quality and provision of recreational opportunities in the watershed. These objectives are front and center for both of the program areas; however, each has a different emphasis. Recreation program area activities are focused on the nexus between recreational activities and facilities and watershed stewardship.

### 6.1 Recreational Facilities

Develop or improve recreational facilities to support recreational opportunities while reducing impacts to lake water quality.

- 6.1.1. Operate and maintain existing recreational amenities (including parking, signage, picnic sites, shelters, information kiosks, trash and pet waste receptacles, and restrooms) and explore options for improving existing facilities and providing amenities where they do not currently exist.
- 6.1.2. Create low maintenance nutrient- and pesticide-free landscapes in public parks.
- 6.1.3. Infiltrate or treat stormwater following stormwater Best Management Practices (BMPs).
- 6.1.4. Ensure recreational opportunities offered through third-party vendors are in line with water quality goals.

### 6.2 Trails

Develop or improve trails and park roads to reduce impacts to water quality.

- 6.2.1. Build and maintain trails and park roads in accordance with appropriate BMPs to prevent erosion and ensure runoff is infiltrated and/or treated before reaching a water body.
- 6.2.2. Remove trails and roads that were not constructed using BMPs, where feasible.
- 6.2.3. Connect trails to other parks, trails, facilities and transportation networks.
- 6.2.4. Provide trailhead amenities such as restrooms, pet waste stations, and information kiosks, where appropriate.
- 6.2.5. Install directional signs on trails to discourage off-trail usage.

## PROGRAM AREA

### Recreation

**OBJECTIVE:** Provide access to recreational opportunities that are consistent with water quality goals.

**2020-2024  
Estimated Investments:  
\$4.7 million**



#### 6.3 Public Access

Provide low impact public access opportunities.

- 6.3.1. Provide public access using existing parks, launches, and trails whenever possible.
- 6.3.2. Explore ways to improve bike lanes and transit services to recreational facilities.
- 6.3.3. Maintain and develop access to key viewpoints in the watershed.

#### 6.4 Public Information and Stewardship

Provide watershed stewardship information to recreational users.

- 6.4.1. Educate watershed residents and visitors about recreational practices that protect water quality.
- 6.4.2. Engage recreational user groups (e.g. mountain bikers, horseback riders, boaters, etc.) in practices that protect water quality.

#### *Reporting Metrics:*

- Miles of user built trails decommissioned per year
- Miles of forest roads maintained in accordance with Forest Practices Act requirements per year
- Number of pet waste stations maintained in the watershed per year
- Estimated number of individuals using parks/trails in the watershed per year
- Number of interpretive/informational exhibits installed or maintained per year



## PROGRAM AREA

### Aquatic Invasive Species

**OBJECTIVE:** Prevent new aquatic invasive species (AIS) introductions to Lake Whatcom and minimize impacts associated with established invasive species.

**2020-2024  
Estimated Investments:  
\$2.8 million**



The Lake Whatcom Management Program (LWMP) launched the Aquatic Invasive Species (AIS) Prevention Program in 2012 with the goal of preventing the introduction of zebra and quagga mussels and other aquatic invasive species to Lake Whatcom. Program elements that are highlighted in this section include education and outreach, watercraft inspection and decontamination, and monitoring and response.

#### 7.1 Prevention

Implement prevention programs to minimize introduction and spread of AIS into Lake Whatcom and nearby waterbodies.

- 7.1.1. Implement mandatory watercraft inspection and decontamination program at Lake Whatcom and Lake Samish.
- 7.1.2. Inform watershed residents, boaters and other lake visitors about AIS issues and engage them in prevention activities through informational materials, online education tools, community events and public meetings, and in-person conversations during inspections.

#### 7.2 Early Detection and Monitoring

Implement comprehensive aquatic invasive species monitoring program for Lake Whatcom and nearby waterbodies.

- 7.2.1. Conduct regular zebra/quagga mussel monitoring events in Whatcom County waters.
- 7.2.2. Detect new introductions and monitor the extent and density of established aquatic invasive species through activities such as: aquatic plant surveys, shoreline monitoring events, trapping and water sampling.
- 7.2.3. Develop a voluntary AIS monitoring and reporting program for Lake Whatcom.

## PROGRAM AREA

### Aquatic Invasive Species

**OBJECTIVE:** Prevent new aquatic invasive species (AIS) introductions to Lake Whatcom and minimize impacts associated with established invasive species.

**2020-2024  
Estimated Investments:  
\$2.8 million**



#### 7.3 Management and Response

Establish effective plans for managing and responding to new infestations in a timely manner.

- 7.3.1. Develop AIS Rapid Response Plan for Lake Whatcom.
- 7.3.2. Identify all current management tools and Best Management Practices (BMPs) that could be implemented in Lake Whatcom to address any potential species of concern.
- 7.3.3. Coordinate and collaborate with staff from state and regional agencies/organizations when developing and implementing control and mitigation strategies.

#### Reporting Metrics:

- Number of new AIS introductions per year
- Number of watercraft inspections conducted per year
- Number of watercraft decontaminations conducted per year
- Number of people who completed online AIS Awareness Course per year
- Number of non-boating visitors interacted with at check stations per year
- Proportion of watershed residents who are knowledgeable about AIS and compliance with inspection requirements measured every five years through the Lake Whatcom Watershed Baseline Survey



## PROGRAM AREA

### Utilities and Transportation

**OBJECTIVE:** Prevent water quality and quantity impacts from water, sewer, and transportation systems.

**2020-2024  
Estimated Investments:  
\$8.9 million**



The Lake Whatcom Management Program (LWMP) supports responsible management of public infrastructure that serves watershed residents, which is critical in mitigating impacts to Lake Whatcom's water quality. Proactive maintenance of water, sewer, and road infrastructure within the watershed, coupled with effective water supply management and public education, can reduce development-related impacts.

#### 8.1 Water

Manage water supply systems to minimize water quality and quantity impacts.

- 8.1.1. Conduct water audits to detect and repair water system leaks.
- 8.1.2. Encourage water-use efficiency through outreach and rebate programs.

#### 8.2 Sewage

Reduce water quality degradation from sanitary sewer and on-site sewage (OSS or septic) systems.

- 8.2.1. Provide sewer service to areas with OSS systems when justified.
- 8.2.2. Maintain and replace sewer infrastructure to reduce the potential of sewage overflows.
- 8.2.3. Enforce OSS system operation and maintenance regulations, maintain OSS database and respond to failing systems.

## PROGRAM AREA

# Utilities and Transportation

**OBJECTIVE:** Prevent water quality and quantity impacts from water, sewer, and transportation systems.

**2020-2024  
Estimated Investments:  
\$8.9 million**



### 8.3

#### Roads and Transportation

Inform watershed residents and visitors about alternative transportation opportunities and design and develop transportation systems to protect water quality.

- 8.3.1. Employ road design standards to reduce impacts to water quality.
- 8.3.2. Perform enhanced maintenance actions (i.e. additional street sweeping, more frequent cleaning of catchbasins, more frequent replacement of stormwater filters, etc.) to reduce impacts to water quality.
- 8.3.3. Inform watershed residents and visitors about alternative transportation opportunities in the watershed.
- 8.3.4. Examine opportunities to improve bike and pedestrian mobility, including signage, to encourage and promote the use of alternative transportation.
- 8.3.5. Work with Whatcom Transit Authority to preserve and promote public transit routes.

#### Reporting Metrics:

- Number of bike and pedestrian mobility improvements made per year
- Proportion of watershed residents who have used alternative methods of transportation in the past year measured every five years through the Lake Whatcom Watershed Baseline Survey
- Estimated gallons of water conserved in the City of Bellingham and Lake Whatcom Water and Sewer District service areas per year
- Number of OSS system failures reported in the watershed per year
- Number of sewer overflows into Lake Whatcom per year
- Proportion of watershed residents who are knowledgeable of water conservation concerns in regards to water supply from Lake Whatcom measured every five years through the Lake Whatcom Watershed Baseline Survey



## PROGRAM AREA

### Education and Engagement

**OBJECTIVE:** Educate and engage watershed residents and visitors to promote and facilitate the adoption of behaviors that protect water quality.

**2020-2024  
Estimated Investments:  
\$825,000**



The Lake Whatcom Management Program (LWMP) educates and engages community members in the protection of Lake Whatcom. Education and engagement (i.e., outreach) work plan components are divided into three types. **General Lake Whatcom** outreach activities are designed to reach a general audience and provide a broad array of information about the Lake Whatcom watershed. **Program area-specific** outreach activities apply to a specific target audience and often include assistance or incentives to help community members take a specific action to protect Lake Whatcom. Outreach activities are listed both in relevant program areas and in the Education and Engagement section. **Community-wide** outreach activities are incorporated into education and engagement efforts that target a broader, community-wide audience, but which also may benefit Lake Whatcom.

#### 9.1 General Lake Whatcom Education and Engagement

Provide education and outreach to watershed residents, property owners, visitors, and the community about Lake Whatcom and the Lake Whatcom Management Program.

- 9.1.1. Provide information about Lake Whatcom and its watershed as well as Lake Whatcom Management Program activities and programs to watershed residents, property owners, visitors, community members and elected officials (TMDL REQUIRED).
- 9.1.2. Maintain and enhance up-to-date information and resources online.
- 9.1.3. Measure watershed residents' understanding of watershed issues and adoption of stewardship practices at least once every five years and use the results to adapt programs and direct resources more effectively (TMDL REQUIRED).
- 9.1.4. Provide education and engagement for program-specific activities included in this work plan, in addition to those specified under 9.2. Due to the large number of programmatic activities, this outreach support may constitute a large body of work. For example, efforts may include outreach to support the Homeowner Incentive Program (HIP), other stormwater retrofit projects, and water quality and AIS monitoring programs.

#### Reporting Metrics:

- Number of households (new and existing) sent informational materials per year (TMDL REQUIRED)
- Number of unique visitors to Lake Whatcom Management Program website per year
- Level of watershed residents' knowledge of and participation in key stewardship practices measured every five years through the Lake Whatcom Watershed Baseline Survey



## PROGRAM AREA

### Education and Engagement

**OBJECTIVE:** Educate and engage watershed residents and visitors to promote and facilitate the adoption of behaviors that protect water quality.

**2020-2024  
Estimated Investments:  
\$825,000**



Waldorf School native planting project | Photo by Ann Neal Levi, 2017

#### 9.2

#### Program Area-Specific Education and Engagement

The following program area-specific education and engagement activities are also listed under their respective program areas. Any reporting metrics for these activities can be found under the respective program areas.

##### Stormwater

- 2.2.4. Conduct annual private stormwater facility maintenance workshops to instruct owners about system needs and maintenance requirements (TMDL REQUIRED).
- 2.2.5. Develop and disseminate Lake Whatcom watershed-specific education and outreach messaging that encourages residents to act to protect water quality.

##### Land Use

- 3.1.4. Provide outreach to watershed residents to increase understanding of and compliance with land use and stormwater regulations.

##### Hazardous Materials

- 5.1.1. Conduct a hazardous materials collection event at locations in the watershed (TMDL REQUIRED).
- 5.1.2. Promote and provide education on proper use, storage and disposal of hazardous materials.
- 5.2.2. Educate watershed residents and visitors on how to prevent and report spills.

##### Recreation

- 6.4.1. Educate watershed residents and visitors about recreational practices that protect water quality.
- 6.4.2. Engage recreational user groups (e.g. mountain bikers, horseback riders, boaters, etc.) in practices that protect water quality.

##### Aquatic Invasive Species

- 7.1.2. Inform watershed residents, boaters and other lake visitors about AIS issues and engage them in prevention activities through informational materials, online education tools, community events and public meetings, and in-person conversations during inspections.

## PROGRAM AREA

### Education and Engagement

**OBJECTIVE:** Educate and engage watershed residents and visitors to promote and facilitate the adoption of behaviors that protect water quality.

**2020-2024  
Estimated Investments:  
\$825,000**



#### 9.2 Program Area-Specific Education and Engagement (continued)

The following program area-specific education and engagement activities are also listed under their respective program areas. Any reporting metrics for these activities can be found under the respective program areas.

##### Utilities and Transportation

- 8.1.2. Encourage water-use efficiency through outreach and rebate programs.
- 8.3.3. Inform watershed residents and visitors about alternative transportation opportunities in the watershed.

#### 9.3 Community-Wide Education and Engagement with Lake Whatcom Benefit

The following community-wide education and engagement activities target a broader, community-wide audience but may also benefit Lake Whatcom.

- 9.3.1. Pet waste: city- and county-wide programs that support pet waste pick up at home and in parks
- 9.3.2. Vehicle leaks: city-wide awareness campaign that uses advertising (e.g. print, bus and movie theater ads) to prompt vehicle owners to check leaks and fix them.
- 9.3.3. Car washing: city-wide awareness campaign that uses advertising (e.g. print, bus and movie theater ads) to prompt vehicle owners to wash their vehicles at a car wash.
- 9.3.4. Yard care: city- and county-wide workshops to educate and encourage residents to use sustainable yard care practices.
- 9.3.5. On-site sewage (OSS) system maintenance: county-wide program to support proper maintenance of OSS systems (septic systems).
- 9.3.6. School program: city-wide program to educate Bellingham School District students about Bellingham's water treatment systems and water conservation principles.



## PROGRAM AREA

### Administration

**OBJECTIVE:** Implement the Lake Whatcom Management Program (LWMP) Work Plan and provide opportunities for public input.

**2020-2024  
Estimated Investments:  
\$700,000**



The Lake Whatcom Management Program (LWMP) facilitates collaboration between the City of Bellingham, Whatcom County, the Lake Whatcom Water and Sewer District, and other partners. Meeting facilitation, reporting, budget development, and other administrative activities are all critical to the success of the program.

#### 10.1 Meeting Coordination

Coordinate and provide staff support for LWMP meetings and information-sharing opportunities.

- 10.1.1. Hold meetings of the Lake Whatcom Watershed Advisory Board to discuss management program issues and receive citizen comments and suggestions.
- 10.1.2. Hold monthly meetings of the Data Management Team to address issues related to monitoring, modeling, Total Maximum Daily Load (TMDL) requirements and other data management.
- 10.1.3. Hold meetings of the Interjurisdictional Coordinating Team to oversee work plan implementation efforts and work product development.
- 10.1.4. Hold meetings of the Lake Whatcom Joint Policy Group to discuss Lake Whatcom policy topics and provide guidance and direction to staff.
- 10.1.5. Hold annual Joint Councils and Commission meeting to discuss LWMP Work Plan and accomplishments.
- 10.1.6. Hold Lake Whatcom Management Committee meetings as needed to provide staff with administrative direction.

#### 10.2 Public Information

Coordinate education and engagement efforts by LWMP staff and partners. Inform the community about opportunities for involvement in public meetings, comment periods and decision making processes.

- 10.2.1. Provide notice of public meetings and other opportunities for public involvement on the LWMP website.
- 10.2.2. Provide periodic updates to the Bellingham City Council, Whatcom County Council, and Lake Whatcom Water and Sewer District Board of Commissioners.
- 10.2.3. Conduct public presentations as needed.



## PROGRAM AREA

### Administration

**OBJECTIVE:** Implement the Lake Whatcom Management Program (LWMP) Work Plan and provide opportunities for public input.

**2020-2024  
Estimated Investments:  
\$700,000**



#### 10.3 Work Plans and Reports

Support development of work plans, presentations and reports.

- 10.3.1. Oversee the development of the Lake Whatcom Management Program five-year work plan and annual Lake Whatcom Management Program progress and monitoring reports.
- 10.3.2. Oversee performance measure tracking and reporting.
- 10.3.3. Develop 2024-2029 Lake Whatcom TMDL Implementation Tasks (TMDL REQUIRED).
- 10.3.4. Develop Lake Whatcom watershed-specific operational plan for managing public areas (TMDL REQUIRED).

#### 10.4 Funding

Establish work plan funding needs and strategy to support work plan implementation.

- 10.4.1. Seek funding necessary to implement LWMP programs.
- 10.4.2. Identify and pursue grant funding as opportunities arise.
- 10.4.3. Manage stormwater fee rolls and watershed protection fund.

#### 10.5 Regulatory Agencies

Support work plan implementation by communicating with agencies.

- 10.5.1. Communicate with regulatory agencies regarding Lake Whatcom water quality, natural resources and land use activities in the watershed.

#### 10.6 Contracts

Oversee a variety of consultant and contractor projects, contracts and work products.

- 10.6.1. Manage and oversee all contracts with consultants and contractors.

## TMDL Required Actions

This table lists activities required under the 2019-2024 NPDES stormwater permits. To download a copy of Appendix 2: <https://ecology.wa.gov>, search for “Western Washington Phase II Municipal Stormwater Permit”, look under “current permit documents”.

### TMDL Required Actions from the Western Washington Phase II Municipal Stormwater Permit Appendix 2

Program Area	Responsible Party	Activity and/or Reporting Metric	Due Date <i>*submitted with NPDES Annual Report for work completed previous year</i>
Stormwater	City of Bellingham Whatcom County	Construct capital stormwater facilities in accordance with capital improvement plans adopted by the City of Bellingham and Whatcom County as part of ongoing watershed-scale planning efforts (Activity 2.1.1.).	Annually on March 31*
Stormwater	City of Bellingham Whatcom County	Complete an evaluation of the effectiveness of built stormwater treatment and flow control facilities, and an assessment of overall performance in reducing phosphorus and bacteria (Activity 2.1.2.).	March 31, 2021*
Stormwater	City of Bellingham Whatcom County	Develop retrofit plans for existing facilities and program projects for design and construction in accordance with resources, budget and need (Activity 2.1.3.).	March 31, 2024*
Stormwater	City of Bellingham Whatcom County	Update capital improvement projects list annually (Activity 2.1.5.).	Annually on March 31*
Stormwater	Whatcom County	Conduct annual private stormwater facility maintenance workshops to instruct owners about system needs and maintenance requirements (Activity 2.2.4.).	Annually on March 31*
Stormwater	City of Bellingham Whatcom County	Conduct regular inspection and maintenance of public stormwater facilities (Activity 2.3.1.).	Annually on March 31*
Stormwater	City of Bellingham Whatcom County	Pounds of phosphorus reduced per year through (Reporting Metric): (1) Treatment and flow control capital projects (2) Homeowner Incentive Program BMPs (3) Land use regulations (4) Operation and maintenance activities	Annually on March 31*
Monitoring and Data	City of Bellingham Whatcom County	Update and recalibrate the loading model with additional data and incorporate recommendations from third party review (Activity 4.4.1.).	March 31, 2024*

## TMDL Required Actions

### TMDL Required Actions from the Western Washington Phase II Municipal Stormwater Permit Appendix 2

Program Area	Responsible Party	Activity and/or Reporting Metric	Due Date <i>*submitted with NPDES Annual Report for work completed previous year</i>
Monitoring and Data	City of Bellingham Whatcom County	Track the status of Ecology-approved Quality Assurance Project Plans (Activity 4.6.4.).	Annually on March 31*
Hazardous Materials	Whatcom County	Conduct a hazardous materials collection event at locations in the watershed (Activity 5.1.1.).	March 31, 2024*
Hazardous Materials	Whatcom County	Pounds of all hazardous materials collected from watershed residents per collection event(s) (Reporting Metric)	March 31, 2024*
Hazardous Materials	Whatcom County	Pounds of phosphorus-containing materials collected from watershed residents per collection event(s) (Reporting Metric)	March 31, 2024*
Education and Engagement	City of Bellingham	Provide information about Lake Whatcom and its watershed as well as Lake Whatcom Management Program activities and programs to watershed residents, property owners, visitors, community members and elected officials (Activity 9.1.1.).	July 31, 2024 (end of permit)
Education and Engagement	City of Bellingham	Number of households (new and existing) sent informational materials per year (Reporting Metric)	Annually on March 31*
Education and Engagement	City of Bellingham	Measure watershed residents' understanding of watershed issues and adoption of stewardship practices at least once every five years and use the results to adapt programs and direct resources more effectively (Activity 9.1.3.).	December 31, 2023 (five-year cycle started in 2018)
Administration	City of Bellingham Whatcom County	Develop 2024-2029 Lake Whatcom TMDL Implementation Tasks (Activity 10.3.3.).	December 31, 2023
Administration	City of Bellingham	Develop a watershed-specific operational plan for managing public areas (Activity 10.3.4.).	March 31, 2024*



## 2020-2024 Work Plan – Cost Estimates

2020-2024 Work Plan Cost Estimates				
Program Area	Staff Costs	Capital Costs	Other Costs	5-Year Total
1. Land Preservation	\$1,125,000	\$18,000,000	\$400,000	\$19,525,000
2. Stormwater	\$2,680,574	\$9,410,000	\$4,863,500	\$16,954,074
3. Land Use	\$1,875,000	–	–	\$1,875,000
4. Monitoring & Data	\$513,497	–	\$2,931,775	\$3,445,272
5. Hazardous Materials	\$160,545	–	\$65,000	\$225,545
6. Recreation	\$1,328,550	\$3,367,000	\$66,500	\$4,762,050
7. Aquatic Invasive Species	\$2,292,082	–	\$574,041	\$2,866,123
8. Utilities & Transportation	\$2,531,760	\$4,560,000	\$1,834,000	\$8,925,760
9. Education & Engagement	\$686,845	–	\$139,500	\$826,345
10. Administration	\$602,500	–	\$100,000	\$702,500
<b>LWMP Work Plan Total</b>	<b>\$13,871,352*</b>	<b>\$35,337,000</b>	<b>\$10,974,316**</b>	<b>\$60,182,668</b>

\*Staff costs include actual budgeted staff costs for each program area (including benefits).

\*\*Other costs include supplies, materials, equipment, consultant fees, interfund charges, taxes, bank charges, and procedural costs.

## 2020-2024 Work Plan – Funding Sources

Program Area	Partner	Funding Sources
<b>1. Land Preservation</b>	Whatcom County	Conservation Futures Fund
	City of Bellingham	Lake Whatcom Property Acquisition Fees
	Lake Whatcom Water and Sewer District	Not Applicable
<b>2. Stormwater</b>	Whatcom County	Real Estate Excise Taxes, Flood Control Zone District Taxes, Stormwater Utility Fees, Road Fund, Grants
	City of Bellingham	Stormwater Utility Fees, Portion of Lake Whatcom Property Acquisition Fees, Grants
	Lake Whatcom Water and Sewer District	Utility Fees
<b>3. Land Use</b>	Whatcom County	Development Fees, General Fund
	City of Bellingham	Development Fees, General Fund
	Lake Whatcom Water and Sewer District	Not Applicable
<b>4. Monitoring &amp; Data</b>	Whatcom County	Flood Control Zone District Taxes, Stormwater Utility Fees, Road Fund
	City of Bellingham	Stormwater Utility Fees, Water Utility Fees
	Lake Whatcom Water and Sewer District	Utility Fees
<b>5. Hazardous Materials</b>	Whatcom County	Solid Waste Excise Taxes, Flood Control Zone District, Road Fund, Grants
	City of Bellingham	Stormwater Utility Fees, Water Utility Fees
	Lake Whatcom Water and Sewer District	Not Applicable
<b>6. Recreation</b>	Whatcom County	Conservation Futures Fund, General Fund, Real Estate Excise Taxes, Parks Special Revenue Fund
	City of Bellingham	Greenways Taxes, General Fund
	Lake Whatcom Water and Sewer District	Not Applicable
<b>7. Aquatic Invasive Species</b>	Whatcom County	Flood Control Zone District Taxes
	City of Bellingham	Water Utility Fees, Boat Inspection Fees
	Lake Whatcom Water and Sewer District	Utility Fees
<b>8. Utilities and Transportation</b>	Whatcom County	Road Fund
	City of Bellingham	Street Funds, Utility Fees
	Lake Whatcom Water and Sewer District	Utility Fees
<b>9. Education and Engagement</b>	Whatcom County	Flood Control Zone District Taxes, Stormwater Utility Fees, Road Fund
	City of Bellingham	Stormwater Utility Fees, Water Utility Fees
	Lake Whatcom Water and Sewer District	Utility Fees
<b>10. Administration</b>	Whatcom County	Flood Control Zone District Taxes, Road Fund, Stormwater Utility Fees
	City of Bellingham	Stormwater Utility Fees, Water Utility Fees
	Lake Whatcom Water and Sewer District	Utility Fees

# Resources

## Land Preservation

Lake Whatcom Property Acquisition Program  
[cob.org/services/environment/lake-whatcom/pages/lw-property-acquisition-program.aspx](http://cob.org/services/environment/lake-whatcom/pages/lw-property-acquisition-program.aspx)

Whatcom County Parks & Recreation—Reconveyance  
[whatcomcounty.us/625/Lake-Whatcom-Reconveyance](http://whatcomcounty.us/625/Lake-Whatcom-Reconveyance)

Protected Property in the Lake Whatcom Watershed Map  
[cob.org/documents/pw/lw/acquisition-land-map.pdf](http://cob.org/documents/pw/lw/acquisition-land-map.pdf)

## Stormwater

Lake Whatcom Management Program Capital Improvement Projects  
[lakewhatcom.whatcomcounty.org/our-programs/capital-projects](http://lakewhatcom.whatcomcounty.org/our-programs/capital-projects)

City of Bellingham 2007 Comprehensive Stormwater Plan  
[cob.org/documents/pw/storm/2007-stormwater-comp-plan.pdf](http://cob.org/documents/pw/storm/2007-stormwater-comp-plan.pdf)

Whatcom County 2008 Lake Whatcom Comprehensive Stormwater Plan  
[whatcomcounty.us/1022/Lake-Whatcom-Comprehensive-Stormwater-Pl](http://whatcomcounty.us/1022/Lake-Whatcom-Comprehensive-Stormwater-Pl)

Whatcom County Lake Whatcom Capital Project Plan Update  
[whatcomcounty.us/DocumentCenter/View/30912](http://whatcomcounty.us/DocumentCenter/View/30912)

Homeowner Incentive Program  
[lakewhatcomHIP.org](http://lakewhatcomHIP.org)

## Land Use

Bellingham Municipal Code (BMC) 16.80 (Lake Whatcom Reservoir Regulatory Chapter), 15.42 (Stormwater Regulations), 16.55 (Critical Areas Ordinance), Title 22 (Shoreline Master Program) [codepublishing.com/wa/bellingham/](http://codepublishing.com/wa/bellingham/)

Whatcom County Code (WCC) 20.51 (Lake Whatcom Watershed Overlay District & Stormwater Regulations), 16.16 (Critical Areas Ordinance), Title 23 (Shoreline Management Program) [codepublishing.com/wa/whatcomcounty/](http://codepublishing.com/wa/whatcomcounty/)

Lake Whatcom Watershed Annual Build-Out Analysis Reports  
[lakewhatcom.whatcomcounty.org/resources](http://lakewhatcom.whatcomcounty.org/resources)

## Monitoring and Data

Lake Whatcom Monitoring Reports  
[cedar.wvu.edu/lakewhat\\_annualreps/](http://cedar.wvu.edu/lakewhat_annualreps/)

Lake Whatcom Data Catalog  
*Copies of documents are available at the Whatcom County Public Works Water Resources Library and the Bellingham Public Library*

## Hazardous Materials

Whatcom County Emergency Management Plan  
[whatcomready.org/wp-content/uploads/2012/06/Whatcom-County-CEMP-2008.pdf](http://whatcomready.org/wp-content/uploads/2012/06/Whatcom-County-CEMP-2008.pdf)

Whatcom County Disposal of Toxics  
[whatcomcounty.us/833/Disposal-of-Toxics-Facility](http://whatcomcounty.us/833/Disposal-of-Toxics-Facility)

Stormwater Hotline: (360) 778-7979  
[cob.org/services/environment/stormwater/pages/stormwater-report-form.aspx](http://cob.org/services/environment/stormwater/pages/stormwater-report-form.aspx)

## Recreation

Whatcom County Parks and Recreation—Reconveyance  
[whatcomcounty.us/625/Lake-Whatcom-Reconveyance](http://whatcomcounty.us/625/Lake-Whatcom-Reconveyance)

Lookout Mountain Forest Preserve and Lake Whatcom Park Recreational Trail Plan  
[whatcomcounty.us/DocumentCenter/View/23920](http://whatcomcounty.us/DocumentCenter/View/23920)

Whatcom County Comprehensive Parks, Recreation and Open Space Plan  
[whatcomcounty.us/DocumentCenter/View/14547](http://whatcomcounty.us/DocumentCenter/View/14547)

City of Bellingham Comprehensive Parks, Recreation and Open Space Plan  
[cob.org/Documents/planning/comprehensive-plan/2016-pro-plan.pdf](http://cob.org/Documents/planning/comprehensive-plan/2016-pro-plan.pdf)

# Resources

## Aquatic Invasive Species

Lake Whatcom Aquatic Invasive Species Program Annual Reports and Documents  
[lakewhatcom.whatcomcounty.org/resources](http://lakewhatcom.whatcomcounty.org/resources)

Whatcom Boat Inspections  
[whatcomboatinspections.com](http://whatcomboatinspections.com)

Aquatic Invasive Species Awareness Course  
[whatcomboatinspections.com/ais-awareness-course](http://whatcomboatinspections.com/ais-awareness-course)

2019 Inspection Results Story Map  
[whatcomboatinspections.com/2019-story-map](http://whatcomboatinspections.com/2019-story-map)

Whatcom Boat Inspections Hotline: (360) 778-7975

## Utilities and Transportation

City of Bellingham Drinking Water Quality Reports  
[cob.org/services/environment/lake-whatcom/pages/water-quality.aspx](http://cob.org/services/environment/lake-whatcom/pages/water-quality.aspx)

Lake Whatcom Water and Sewer District Consumer Confidence Reports  
[lwwsd.org/for-customers/quality-consumer-confidence-reports/](http://lwwsd.org/for-customers/quality-consumer-confidence-reports/)

City of Bellingham Water Conservation Resources  
[cob.org/conserve](http://cob.org/conserve)

Whatcom County On-Site Sewage System Program, WCC 24.05  
[whatcomcounty.us/documentcenter/view/2053](http://whatcomcounty.us/documentcenter/view/2053)

Lake Whatcom Water and Sewer District 2018 Water System Comprehensive Plan  
[lwwsd.org/resources/water-system-comprehensive-plan/](http://lwwsd.org/resources/water-system-comprehensive-plan/)

Lake Whatcom Water and Sewer District 2014 Sewer Comprehensive Plan  
[lwwsd.org/resources/comprehensive-sewer-plan/](http://lwwsd.org/resources/comprehensive-sewer-plan/)

Whatcom Smart Trips  
[whatcomsmarttrips.org/](http://whatcomsmarttrips.org/)

Community Energy Challenge  
[sustainableconnections.org/energy/energychallenge](http://sustainableconnections.org/energy/energychallenge)

## Education and Engagement

Lake Whatcom Management Program  
[lakewhatcom.whatcomcounty.org](http://lakewhatcom.whatcomcounty.org)

City of Bellingham Lake Whatcom Stewardship  
[cob.org/services/environment/lake-whatcom/pages/stewardship-solutions.aspx](http://cob.org/services/environment/lake-whatcom/pages/stewardship-solutions.aspx)

WSU Whatcom County Extension Sustainable Landscaping  
[whatcom.wsu.edu/ch/sustainable.html](http://whatcom.wsu.edu/ch/sustainable.html)

Homeowner Incentive Program  
[lakewhatcomHIP.org](http://lakewhatcomHIP.org)

Lake Whatcom Watershed Baseline Survey 2018  
[lakewhatcom.whatcomcounty.org/LakeWhatcomWatershedBaselineSurveyFindings2018\\_Final.pdf](http://lakewhatcom.whatcomcounty.org/LakeWhatcomWatershedBaselineSurveyFindings2018_Final.pdf)

## Administration

1992 Lake Whatcom Joint Resolution  
[lakewhatcom.whatcomcounty.org/1992JointResolution.pdf](http://lakewhatcom.whatcomcounty.org/1992JointResolution.pdf)

Lake Whatcom Management Program Work Plans and Progress Reports  
[lakewhatcom.whatcomcounty.org/resources](http://lakewhatcom.whatcomcounty.org/resources)

Lake Whatcom Meetings and Agendas  
[lakewhatcom.whatcomcounty.org/news](http://lakewhatcom.whatcomcounty.org/news)

Lake Whatcom Management Program Contacts  
[lakewhatcom.whatcomcounty.org/contacts](http://lakewhatcom.whatcomcounty.org/contacts)





View from Bloedel Donovan | Photo by T. Ward, 2018

### **Lake Whatcom Management Program Contacts:**

City of Bellingham Public Works—Natural Resources  
Clare Fogelsong, (360) 778-7900, [cfogelsong@cob.org](mailto:cfogelsong@cob.org)

Whatcom County Public Works  
Gary Stoyka, (360) 778-6230, [gstoyka@co.whatcom.wa.us](mailto:gstoyka@co.whatcom.wa.us)

Lake Whatcom Water and Sewer District  
Justin Clary, (360) 734-9224, [justin.clary@lwwsd.org](mailto:justin.clary@lwwsd.org)




[www.lakewhatcom.whatcomcounty.org](http://www.lakewhatcom.whatcomcounty.org)





**AGENDA  
BILL  
Item 7.C**

**Dellesta and Edgewater Sewer  
Lift Station Improvements  
Contract Award**

DATE SUBMITTED:	June 4, 2020	MEETING DATE:	June 10, 2020
TO: BOARD OF COMMISSIONERS	FROM: Bill Hunter, Assist. GM/District Engineer		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. Bid Tabulation		
TYPE OF ACTION REQUESTED	RESOLUTION <input type="checkbox"/>	FORMAL ACTION/ MOTION <input checked="" type="checkbox"/>	INFORMATIONAL /OTHER <input type="checkbox"/>

**BACKGROUND / EXPLANATION OF IMPACT**

Project includes replacement of existing Smith & Loveless top-mounted lift stations with new-top mounted package sewer pumps, District-standard controls, and telemetry at two sites: Dellesta (installed in 1977) and Edgewater (installed in 1974). Work also includes a new 4-inch diameter 66 lineal foot HDPE sewer force main from Edgewater Lift Station directly to the North Shore Gravity Sewer Interceptor. The new sewer force main alignment eliminates more than 700 lineal feet of old PVC force main, allowing for a reduction in the size of the required pumps.

An Advertisement for Bids was published in the Bellingham Herald on March 17, 2020. Bids were due and opened on May 28, 2020. Staff is evaluating the bids, mandatory and supplemental bidder responsibility criteria.

The design objective for these two stations is to simplify and minimize site work, mechanical piping, electrical, and control systems. The intent is to use these two stations as design standardizations for future upcoming small lift station replacements such as the Rocky Ridge and Lakewood lift stations. The design team also wanted to make sure there was competition among major component manufacturers by specifying two package sewer pump station manufacturers: Smith & Loveless and Gorman Rupp.

To help mitigate COVID-19 risks to the contractor such as supply chain, worker social distancing, worker quarantines, etc., a longer period of performance of 240 calendar days was specified.

Bid prices came in significantly more than the Engineer's Estimate and the funding allocated in the District's 2020 Budget. RH2 Engineering is researching possible causes for the discrepancies and will provide a verbal summary of what they have found at the meeting. Briefly, it appears that the bulk of the cost difference cannot be reconciled to any one component, but might be due to perceived risk by the contractor, late season bid

opening (contractors already have work lined up), and/or contractor's current contracts on hold due to COVID-19 delays are still active resource commitments.

For perspective, below are four prior sewer lift station replacement construction costs compared to the Dellesta and Edgewater bid. Even with the higher than expected bids, the per-station cost has been reduced through minimization and simplification of design.

<u>Historical Projects</u>	<u>Construction (incl tax)</u>	<u>Completion Date</u>
Boulevard Sewer Pump Station	\$383,874.55	February 2015
Strawberry Point Sewer Pump Station	\$387,003.84	December 2016
Par Lane Sewer Pump Station	\$438,263.68	January 2019
Geneva Sewer Pump Station <sup>(1)</sup>	\$707,010.79	January 2020
Dellesta Sewer Pump Station	\$314,378.75	Bid 5/28/2020
Edgewater Sewer Pump Station	\$314,378.75	Bid 5/28/2020

<sup>(1)</sup> Included 700 feet of force main replacement, shoreline mitigation, and a new standby generator.

#### **FISCAL IMPACT**

The approved 2020 Budget includes \$450,000 for the construction contract (engineering services during construction and Puget Sound Energy electrical service fees are separate budget items). The low bid amount is \$628,757.50 (including 8.5% sales tax) if all of the unit price work is performed.

The difference between the 2020 Budget and low bid is \$178,757.50.

Staff recommends making up the construction funding shortfall by allocating \$180,000 from approximately \$377,675 of extra unallocated sewer funds that were carried over from 2019 to 2020. The budgeted 2019 carryover amount in Sewer Utility Fund 402 was \$986,000 while actual 2019 carryover in Sewer Utility Fund 402 ended up being \$1,363,675.

#### **RECOMMENDED BOARD ACTION**

Staff recommends that the Board award the Edgewater and Dellesta Sewer Pump Station Improvements contract to the lowest responsible bidder which will be entirely funded by existing sewer capital funds contained in the 2020 Budget and supplemented by utilizing \$180,000 of \$377,675 of extra unallocated sewer capital funds carried over from 2019.

A verbal recommendation for the lowest responsible bidder will be made at the Board meeting (staff is in the process of reviewing supplemental bidder criteria submitted by the low bidder).

**PROPOSED MOTION**

Recommended motions are:

“I move to direct \$180,000 of the unallocated sewer capital funds carried over from 2019 towards the Edgewater and Dellesta Sewer Pump Station Improvements construction contract, for a total construction budget of \$630,000.”

“I move to award the Edgewater and Dellesta Sewer Lift Stations Improvements contract to \_\_\_\_\_, for a total contract price of \$\_\_\_\_\_ including 8.5% sales tax and authorize the General Manager to execute the contract.”



LAKE WHATCOM WATER & SEWER DISTRICT  
 1220 LAKEWAY DRIVE  
 BELLINGHAM, WA 982298  
 (360) 734-9224



**BID TABULATION**

PROJECT NAME	PROJECT #	BID OPENING DATE & TIME	PAGE # OF #	LOCATION
Edgewater & Deliesta Pump Station Improvements	C1802-CON	5/28/2020 2:10 PM	1 OF 1	LAKE WHATCOM WATER & SEWER DISTRICT BOARD ROOM

NAME OF FIRM	ENGINEER'S ESTIMATE	RAM CONSTRUCTION GENERAL CONTRACTORS LLC	COLACURCIO BROTHERS, INC.	BOSS CONSTRUCTION, INCORPORATED	STRIDER CONSTRUCTION CO., INC.
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Item	Description	Quantity	Unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
BASE BID													
1	Mobilization / Demobilization	1	LS	N/A	\$ 22,900.00	N/A	\$ 60,000.00	N/A	\$ 20,000.00	N/A	\$ 120,321.00	N/A	\$ 59,000.00
2	Sewer Pump Station Improvements	1	LS	N/A	\$ 308,100.00	N/A	\$ 488,000.00	N/A	\$ 542,560.00	N/A	\$ 502,678.00	N/A	\$ 751,000.00
3	Trench Safety and Shoring	1	LS	N/A	\$ 800.00	N/A	\$ 500.00	N/A	\$ 1,000.00	N/A	\$ 6,164.00	N/A	\$ 500.00
4	Unscheduled Excavation	50	CY	\$ 30.00	\$ 1,500.00	\$ 60.00	\$ 3,000.00	\$ 50.00	\$ 2,500.00	\$ 62.71	\$ 3,135.50	\$ 65.00	\$ 3,250.00
5	Unscheduled Backfill	100	Ton	\$ 20.00	\$ 2,000.00	\$ 50.00	\$ 5,000.00	\$ 30.00	\$ 3,000.00	\$ 48.76	\$ 4,876.00	\$ 50.00	\$ 5,000.00
6	Miscellaneous Owner Directed Extra Work	1	LS	N/A	\$ 6,000.00	N/A	\$ 6,000.00	N/A	\$ 6,000.00	N/A	\$ 6,000.00	N/A	\$ 6,000.00
7	O&M Manuals and On Site Owner Training	1	LS	N/A	\$ 2,000.00	N/A	\$ 2,000.00	N/A	\$ 2,000.00	N/A	\$ 2,000.00	N/A	\$ 2,000.00
8	Construction Records	1	LS	N/A	\$ 2,000.00	N/A	\$ 2,000.00	N/A	\$ 2,000.00	N/A	\$ 2,000.00	N/A	\$ 2,000.00
9	Force Account - HMA Commercial 1/2"	40	Ton	\$ 140.00	\$ 5,600.00	\$ 165.00	\$ 6,600.00	\$ 245.00	\$ 9,800.00	\$ 142.67	\$ 5,706.80	\$ 250.00	\$ 10,000.00
10	Force Account - Crushed Surfacing Top Course	80	Ton	\$ 30.00	\$ 2,400.00	\$ 80.00	\$ 6,400.00	\$ 63.00	\$ 5,040.00	\$ 70.65	\$ 5,652.00	\$ 38.00	\$ 3,040.00
Sub Total Base Bid (does not include Washington State Sales Tax)					\$ 353,300.00		\$ 579,500.00		\$ 593,900.00		\$ 658,533.30		\$ 841,790.00

BID GUARANTEE FOR PROJECTS OVER \$35,000? (YES OR NO)

N/A

YES

YES

YES

YES

ADDENDUM ACKNOWLEDGED? (YES OR NO)

N/A

YES

YES

YES

YES

PUMP STATION BRAND NAME

GORMAN RUPP

SMITH & LOVELESS

GORMAN RUPP


GORMAN RUPP

SMITH & LOVELESS



**AGENDA  
BILL  
Item 9.A.**

**General Manager's Report**

DATE SUBMITTED:	June 3, 2020	MEETING DATE:	June 10, 2020
TO: BOARD OF COMMISSIONERS	FROM: Justin Clary		
GENERAL MANAGER APPROVAL			
ATTACHED DOCUMENTS	1. General Manager's Report		
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.



## LAKE WHATCOM WATER AND SEWER DISTRICT

### General Manager's Report

#### Upcoming Dates & Announcements

Regular Meeting – Wednesday, June 10, 2020 – 6:30 p.m.

#### Important Upcoming Dates (Note—all meetings are tentative due to COVID-19)

Lake Whatcom Water & Sewer District			
Regular Board Meeting	Wed Jun 24, 2020	8:00 a.m.	Board Room/Remote Attendance
Employee Staff Meeting	Thu Jun 11, 2020	8:00 a.m.	Remote Attendance Commissioner Citron to attend
Investment Comm Meeting	Wed Jul 29, 2020	10:00 a.m.	Small Conference Room
Safety Committee Meeting	Tue Jun 17, 2020	10:00 a.m.	Remote Attendance
Lake Whatcom Management Program			
Data Group Meeting	Thu Jun 11, 2020	9:00 a.m.	Remote Attendance
Policy Group Meeting	Wed Jun 17, 2020	3:00 p.m.	Remote Attendance
Joint Councils Meeting	2020 Meeting Cancelled	-	-
Other Meetings			
WASWD Section III Meeting	Tue Jul 14, 2020	7:00 p.m.	Remote Attendance
Whatcom Water Districts Caucus Meeting	June Meeting Cancelled	-	-
Whatcom County Council of Governments Board Meeting	Wed Oct 14, 2020	3:00 p.m.	Council of Governments Offices 314 E Champion Street

#### Committee Meeting Reports

##### Safety Committee:

- No committee meeting has been held since last board meeting.

##### Investment Committee:

- No committee meeting has been held since last board meeting.

#### Upcoming Important Board Meeting Topics

- Sudden Valley Water Treatment Plant Assessment Findings Presentation
- Lake Whatcom Boulevard Sewer Main Cleaning/Renovation Analysis Presentation
- Lake Louise Lift Station PLC Replacement Design Contract
- Division 7 Reservoir Pre-design Update
- Sudden Valley Area Z Developer Extension Agreement Project Acceptance



## 2020 Initiatives Status

### Administration and Operations

#### Level-of-Service Analysis

- Facilitate Board development of level-of-service standards for District operations.  
*The initial step in completing the Effective Utility Management process is to conduct a self-assessment at varying levels of the organization. The self-assessment was completed by the management team on May 14, and will be completed by staff (three groups to meet social distancing requirements) by June 10. The self-assessment by the board will be completed after June 10, dependent upon restrictions resulting from the COVID-19 pandemic.*

#### Six-Year Business Plan

- Develop department-specific business plans that define staffing, facility, and equipment needs necessary to meet level-of-service standards over the six-year planning horizon.  
*To be initiated following completion of the level-of-service analysis.*

#### Rate Study

- Conduct rate study for the water and sewer utilities for the five-year planning horizon.  
*To be initiated following completion of the 2020 Comprehensive Sewer Plan, the Sudden Valley Water Treatment Plant Facility Improvement Plan, and the Six-Year Business Plan.*

#### Biennial Budget

- Facilitate Board consideration of shifting from an annual to a biennial budget.  
*Staff plans to complete in late spring/early summer.*

#### Bond Rating Review

- Pursue a higher bond rating.  
*Staff plans to complete in late spring/early summer.*

#### Staffing Succession Plan

- Develop a staffing succession plan to address anticipated retirements over the next five years.  
*The plan is under development.*

#### Job Description Review

- Update all District job descriptions that have not been revised in the last three years.  
*Staff plans to complete this fall.*

### Emergency Response/System Security

#### Risk and Resilience Assessment

- Develop an America's Water Infrastructure Act-compliant Risk and Resilience Assessment.  
*Plan is under development with assistance from the Whatcom County Sheriff's Office under the District's interlocal agreement for emergency planning services.*

#### Cybersecurity Assessment

- Conduct a cybersecurity assessment of the District's IT infrastructure.  
*Through the District's insurance provider, implemented ongoing staff/board cybersecurity training platform in November 2019.*  
*As part of the AWIA Risk and Resilience Assessment, staff have begun mapping the District's IT system.*

#### Emergency Vendor Contracts

- Pursue contracts with applicable vendors for on-call contracts, including contracts for support during periods of emergency response.  
*A public works contract template specific to unit-priced contracting has been developed.*

### **Community/Public Relations**

#### General

- Website  
*The District's web content is being updated on a regular basis, including regular posts specific to District operations in response to the COVID-19 pandemic.*
- Social Media  
*Posts are being made to District Facebook and LinkedIn pages regularly; Nextdoor is regularly monitored for District-related posts.*
- Press Releases  
*Press releases were issued on March 16, 18, 20, and 25 specific to District operations relative to the COVID-19 pandemic. A press release recognizing Drinking Water Week was issued on May 5, and one summarizing the results of the District's 2018-19 audit was issued May 20.*

#### Intergovernmental Relations

- *Staff continue to regularly attend the daily Whatcom County Unified Command daily briefings specific to the COVID-19 pandemic.*

#### EnviroStars Certification

- Gain EnviroStars Green Business certification.  
*The District has completed 5 of 20 required core measures and earned a total of 145 points (core and elective measures) in the certification process. Once all core measures are complete, the District will be certified at the Tier 1-Leader level (300 points are required for Tier 2-Partner).*

### **Lake Whatcom Water Quality**

#### Management Program

- Attend meetings of Lake Whatcom Management Program partners.  
*All recent meetings of the Lake Whatcom Management Program have been postponed/cancelled.*

#### Onsite Septic System Impact Assessment

- Lead effort in water quality monitoring to assess the impacts of septic systems on the lake.  
*Herrera has conducted all five scoped monitoring events (on March 3 and 24, April 27, May 11, and June 2). Data evaluation and report preparation will begin once all data is received.*

#### Onsite Septic System Conversion Program

- Pursue connection of septic-served parcels within 200 feet of District sewer system.  
*Of the three properties noticed in 2019, one connected on January 7, one has been in contact with the District (fall 2019), and one has not responded to-date. Based upon Board authorization, the two remaining properties have until August 2021 to connect. A white paper to facilitate analysis of the District's septic conversion policy was issued to the Board on April 9; a work session will be scheduled once the Board resumes in-person meetings.*