









2015-2019 **Lake Whatcom** Management **Program** 

**ACCOMPLISHMENTS REPORT** 





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Lake Whatcom Management Program lakewhatcom.whatcomcounty.org







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### PROGRAM OVERVIEW

## Introduction

In 2015, the Whatcom County Council, Bellingham City Council and the Lake Whatcom Water and Sewer District Board approved the *Lake Whatcom Management Program 2015–2019 Work Plan*. As with the previous work plans, tasks included in this five-year plan continued to be guided by the original Lake Whatcom Management Program strategies and goals that were formulated in 1992 by the City of Bellingham, Whatcom County and the Lake Whatcom Water and Sewer District and formally adopted by the Lake Whatcom Management Program partners in 1998.

This report summarizes the work accomplished during the past five years by the county, city, and district, as well as community partners. This report, in keeping with the established format of the *Lake Whatcom Management Program 2015–2019 Work Plan* and annual reports, is organized around 10 program areas. For each program area the report includes an update on performance measures and a summary of highlighted program area activities from the past five years.

In April 2016, the Environmental Protection Agency finalized the Lake Whatcom Total Maximum Daily Load study which has set in motion a 50-year cleanup effort focused on reducing phosphorus and bacteria inputs to Lake Whatcom and its tributaries. The city and county have been working together since 1992 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; and preserving land in the watershed that might otherwise be susceptible to development or other land disturbance activities. To date, efforts to reduce phosphorus have resulted in an annual reduction of approximately 491 pounds of phosphorus entering Lake Whatcom.

Since 2016, the city and county have also been engaged in forward-looking research that aims to significantly improve the effectiveness of engineered systems and maximize the return on investment for these projects. In 2018, the city completed the Pullman Street Vault retrofit which included the pilot

installation of a Phosphorus-Optimized Stormwater Treatment (POST) technology that was developed by the city in partnership with the Washington Department of Ecology (Ecology). This system was approved for field testing by Ecology after laboratory testing showed a significant phosphorus treatment capability when compared to other treatment systems. The city's first POST system along Pullman Street went online in October 2019 and will be actively monitored for at least one year to confirm its pollutant removal capabilities.

A comprehensive Lake Whatcom Watershed Baseline Survey was administered in 2018 to help evaluate the effectiveness of outreach efforts and to inform future work plan priorities. In fall 2018, 596 surveys were completed. This survey will be repeated every five years. Survey results will provide information on watershed residents' attitudes, knowledge and behaviors that can be used to craft outreach programs and tools to help residents adopt beneficial behaviors that result in improved lake health.

While projects to reduce the amount of phosphorus and fecal coliform bacteria continued to be a major focus of the *Lake Whatcom Management Program 2015–2019 Work Plan*, other program areas, most notably Land Preservation and Aquatic Invasive Species, have been very active in preventing additional pollutant loading and protecting other aspects of the Lake Whatcom ecosystem. Notable 2019 achievements for several program areas are highlighted on page 2.

Expenditures for the entire 2015–2019 period for all program areas can be found on page 22.



Lake Whatcom | Photo by T. Ward, 2016

### PROGRAM OVERVIEW

# 2019 Highlights



Whatcom County completed Phase II of the Agate Bay Stormwater Improvement Project. The project included the installation of three water quality treatment vaults, the replacement of failing pipes and culverts, the installation of new pipes and catch basins, and ditch stabilization. Photo: Installing new pipes along N Shore Road.



Aquatic invasive species (AIS) inspectors conducted 12,923 watercraft inspections to prevent the spread of AIS to Lake Whatcom and Lake Samish. Photo: Boat being inspected at Bloedel Donovan Check Station.



Whatcom County Parks and Recreation constructed five miles of new hike and bike trail at Lake Whatcom Park, including an extension of the Chanterelle Trail and improvements to the Brown Pow bike trail. Community volunteers have supported trail construction since 2015 by donating more than 6,000 hours of service. Photo: 2019 Volunteers building trail.



The City of Bellingham acquired four new properties in 2019 bringing the total area of land protected in the watershed to 11,031 acres. Photo: Washington Conservation Corps members conduct brush cutting at Uy property.



825 5<sup>th</sup> grade students learned about Lake Whatcom water quality issues, water and wastewater treatment, water conservation, and stormwater pollution prevention through the city's Bellingham Water School program in 2019. Photo: Water Plant School Tour (P. Conrad).



77 new households participated in the Homeowner Incentive Program (HIP) in 2019. HIP projects improved 71,645 square feet of residential area including the largest HIP project to date, 23,443 square feet of native landscaping. Photo: HIP participant with yard sign (J. Coe, Whatcom 2 Conservation Distict).

### PROGRAM OVERVIEW

# **Program Areas and Objectives**

### 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

Prevent water quality and quantity impacts associated with stormwater runoff by implementing best management practices, pollutant source control, construction and maintenance of stormwater facilities, inspections, and compliance.

### 3. Land Use

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

### 4. Monitoring & Data

Collect and manage data to increase our understanding of water quality and pollution sources, and to 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

Promote recreational opportunities that are consistent with water quality goals, and improve ways to reduce impacts of existing activities.

### 7. Aquatic Invasive Species

Prevent new aquatic invasive species (AIS) introductions to Lake Whatcom and other waterbodies 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

Protect water quality by educating and engaging watershed residents and visitors.

### 10. Administration

Coordinate and support implementation of the Lake Whatcom Management Program Work Plan.

### **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.

Land Preservation actions implemented in the Lake Whatcom watershed to protect water quality include: land acquisition, conservation easements, transfer and purchase of development rights, and other incentive programs. Over 11,000 acres have been protected in the Lake Whatcom watershed to date, including approximately 7,800 acres that were reconveyed to Whatcom County in 2014.

The City of Bellingham has acquired twelve new properties since 2016, protecting an additional 150 acres of land in the watershed. Four of those properties were purchased in 2019 protecting 40 additional acres of forested land adjacent to other protected properties and reducing development potential by 10 units.

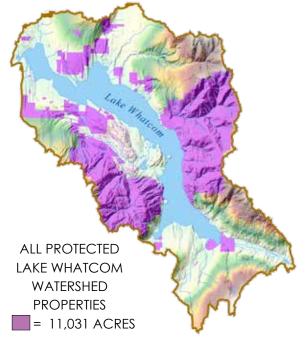
In 2018, an additional 1,023 acres on Galbraith Mountain were protected from residential development while



WCC brush cutting at Uy | Photo by WCC, 2019

allowing for the continuation of forest practices. The agreement between the City of Bellingham, the Whatcom Land Trust, and Galbraith Tree Farm LLC also provides for recreational use of the property.

In 2017, the city hired a property technician to manage the city's acquisition properties. Management activities completed on these properties included regular property inspections, removal of invasive species and planting of



Map by L. Rexroat, 2019

### HIGHLIGHTED PROGRESS MEASURES

**11,031** Acres protected (to date)

Acres added to protected total in 2019



House removal from property | Photo by COB, 2018

# **Land Preservation**

native species, the removal of existing structures, bridge replacements, and abatement of encroachments through the use of letters, gates, and/or signage.

Management activities were completed by the city's property technician with assistance provided by Washington Conservation Corps crews.

Other noteable highlights from the past five years include: 240 tons of concrete hauled from watershed properties, 108 acres actively managed for invasive species and restoration, 13 acres actively managed using silviculture practices to improve forest health, and 7,600 native plants installed.

Table 1 lists all of the Lake Whatcom watershed property acquisitions from 2015 to 2019.



WCC install new signage | Photo by COB, 2017

Table 1: Lake Whatcom Watershed Property Acquisitions 2015–2019

Year/Property	/ear/Property Price Acres Units Per Acre Per Unit Score Description						
rear/Troperty	rice	Acres	Oilles	rei Acie	rei Oilit	Jeore	Description
2016/WS-0047	\$174,240	7.68	1	\$22,688	\$174,240	378	Adjacent to Agate Bay Preserve
2016/WS-0070	\$200,000	20	4	\$10,000	\$50,000	509	Adjacent to Agate Bay Preserve
2016/WS-0076	\$100,000	58	3	\$1,724	\$33,333	478	Adjacent to Shetabi in Agate Bay
2017/WS-0077	\$60,000	0.14	1	\$428,571	\$60,000	452	Parcel inside Silver Beach Preserve
2017/WS-0079	\$160,000	7.25	1	\$22,069	\$160,000	323	Parcel abuts Olsen Creek Preserve
2017/WS-0078	\$80,000	0.8	1	\$100,000	\$80,000	442	Abuts Dutch Harbor Preserve
2018/WS-0080	\$640,000	16.45	4	\$38,906	\$160,000	418	Completes ownership in Geneva and Stimpson Preserve
2018/WS-0081	\$91,256	0.25	1	\$365,024	\$91,256	485	Connects to Nielsen and Lake Geneva Preserve
2019/WS-0082	\$100,000	0.77	1	\$129,870	\$100,000	406	Connects to Lake Geneva Preserve
2019/WS-0083	\$775,000	12	2	\$64,583	\$387,500	517	Connects to Watts Family waterfront
2019/WS-0088	\$400,000	26.3	5	\$15,209	\$80,000	322	Adjacent to Agate Pond Conservation Preserve
2019/WS-0087	\$115,000	0.44	2	\$26,136	\$57,500	413	Three lots inside the Silver Beach Preserve
Totals	\$2,895,496	150	26	\$19,303 (Average)	\$111,365 (Average)		

### Stormwater

**OBJECTIVE:** Prevent water quality and quantity impacts associated with stormwater runoff by implementing best management practices, pollutant source control, construction and maintenance of stormwater facilities, inspections, and compliance.

The City of Bellingham and Whatcom County worked hand-in-hand in 2019 to successfully complete the first full year of work described in the Lake Whatcom TMDL Implementation Plan. Efforts were divided amongst the jurisdictions and included continued design and construction of capital stormwater projects, media research, expansion of the Homeowner Incentive Program, and enhanced operations and maintenance practices.

The city installed three new stormwater treatment systems in 2019 to complete the network of facilities needed to treat all runoff from the city portion of the watershed. The Summit, Hayward, and Huntington Projects used cutting-edge, best-available technologies to provide treatment for 15 acres of development and

Planting at Summit, Hayward, Huntington | Photo by COB, 2019

seven acres of forest, reducing phosphorus directed into the lake by more than 10 pounds per year.

Since 2016, the city and county have been engaged in forward-looking research that aims to significantly improve the effectiveness of engineered systems and maximize the return on investment for these projects. To this end, the Phosphorus-Optimized Stormwater Treatment (POST) system was approved for field testing by the Department of Ecology after laboratory testing showed a significant phosphorus treatment capability when compared to other treatment systems.

The POST system is expected to treat more than five times the volume of runoff than other comparable systems without requiring additional space. The city's



Pullman Street Vault POST Retrofit | Photo by COB, 2018

### HIGHLIGHTED PROGRESS MEASURES

Lbs. of phosphorus reduced per year (to date)
(Including Residential Projects & Street Sweeping)

Acres added to area treated by capital facilities in 2019

32 Lbs. of phosphorus reduced per year by new/retrofitted capital facilities built in 2019



Agate Bay Phase II | Photo by Whatcom County, 2019

### Stormwater

first POST system, a pilot installation along Pullman Street, went online in October of 2019 and will be actively monitored for at least one year to monitor its pollutant removal capabilities. treatment facilities in order to meet the TMDL targets. Many of these facilities were constructed at a time who the best-available devices could not capture dissolved phosphorus, meaning that more than 50% of total

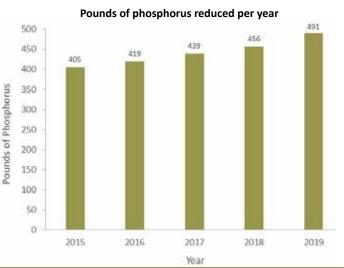
In 2019, the county completed Phase II of the Agate Bay Stormwater Improvement Project which was part of a two year effort to provide stormwater treatment in the Agate Bay basin. This project included the installation of three water quality treatment vaults, the replacement of failing pipes and culverts, the installation of new pipes and catch basins, and ditch stabilization. Phase I was completed in 2018 and included ditch stabilization and the installation of check dams and three filter vaults. Phase I treats an estimated 41 acres and removes 14 pounds of phosphorus per year. Phase II treats an estimated 66 acres and removes 22 pounds of phosphorus per year.

The city completed a draft Retrofit Plan in 2019 that addresses the need to upgrade or rebuild water quality

Cedar Hills-Euclid Project | Photo by Whatcom County, 2016

treatment facilities in order to meet the TMDL targets. Many of these facilities were constructed at a time when the best-available devices could not capture dissolved phosphorus, meaning that more than 50% of total phosphorus could not be treated by these structures. Advancements in the industry, including the development of new medias with significantly improved ability to capture dissolved phosphorus, will allow the city to methodically replace underperforming facilities with cutting-edge devices that treat more phosphorus in the same footprint.

The city and county completed the Lake Whatcom TMDL Implementation Plan in 2017 as a response to the findings in the 2003–2016 TMDL study. The study measured phosphorus entering the lake and calculated reductions needed to ensure that runoff from developed areas does not impact water quality.



The city constructed the East Oregon Street and East North Street infiltration and dispersion facilities in 2017. These projects included construction of infiltration and treatment systems, installation of modular wetland systems, repair and upgrades to existing stormwater infrastructure, and the elimination of erosion issues at the Silver Beach Creek outfall. These projects treat runoff from both the city and county portions of the watershed and treat a total of 40 acres and reduce phosphorus discharges to the lake by 21 pounds per year.

In 2016, the county constructed the Cedar Hills-Euclid Stormwater Improvement Project. The project included installation of bio-infiltration swales, storm filter vaults, pretreatment structures, stream stabilization and native plantings. This project treats about 48 acres and reduces phosphorus discharges to the lake by 27 pounds per year.

In 2015, the Huntington/Shepardson Improvement Project was completed by the city. This project installed filtration systems and permeable paving to treat 19 acres of runoff and reduce phosphorus discharges to the lake by 17 pounds per year. The Academy Road Stormwater Improvement Project was also completed in 2015. This joint city/county project aims to reduce phosphorus loading and treat stormwater runoff from approximately 76 acres of residential area. The project includes Filterra and media filtration systems with installation of piping, catch basins and pre-treatment vaults.

### Stormwater

The Homeowner Incentive Program (HIP) provides technical assistance and financial incentives to property owners in the Lake Whatcom watershed who voluntarily install stormwater best management practices (BMPs) that reduce phosphorus runoff into the lake. These BMPs include native landscaping, infiltration trenches, specially-designed rain gardens, dispersion, media filter drains, and other accessory BMPs that reduce the impact from residential properties to the lake.

Since its launch in 2011, the HIP has facilitated the completion of over 455 phosphorus-reducing BMPs. In 2017, a revised and expanded version of HIP was launched to build on the successes of the pilot program.



### **Residential Projects**

Includes all residential re-development and new development projects inside city limits as well as projects completed as part of the Homeowner Incentive Program (city and county)

Properties completed residential stormwater projects (since 2011)

**35** Acres treated (since 2011)

28 Lbs. of phosphorus reduced per vear (since 2011)

The new and improved HIP includes an expanded program area and two tiers of assistance. Properties with a greater potential to export phosphorus to the lake qualify for the target program. Properties with less impact on water quality qualify for the do-it-yourself (DIY) native landscaping program. Additional program changes include an increased reimbursement rate, training for professional designers and contractors to assist HIP homeowners, and a new website (www.LakeWhatcomHIP.org).

2019 was the third year of this revised program. Interest and participation in the program continued to grow. Participants talked to their neighbors, put up yard signs, and helped promote the program. New professionals got involved installing HIP projects and staff continued to improve program administration.



Media filter drain | Photo by Whatcom Conservation District, 2018

### HIGHLIGHTED PROGRESS MEASURES

**132,438** Square feet improved through HIP since 2017

Properties participated in HIP in 2019

DIY HIP projects installed since 2017

Target HIP projects installed since 2017



HIP participants | Photo by G. Mednick, 2019

### Land Use

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

In 2019, the City of Bellingham and Whatcom County continued to implement the development regulations aimed at preventing water quality and quantity impacts to Lake Whatcom.

Each new and redeveloped home in the city portion of the watershed is required to provide a forested condition on 30 percent of the lot. These are the Native Vegetation Protection Areas (NVPA) that now total 7.77 acres of phosphorus neutral-forested landscape (since the 2009 ordinance adoption). The NVPAs are protected by a conservation easement, and the city ensures that each NVPA is well established by overseeing monitoring requirements.

In February 2019, the city released the *Lake Whatcom Watershed Annual Build-out Analysis Report* updating the number of existing dwelling units (7,123) and the number of potential units on vacant lands (1,563) in the Lake Whatcom watershed.

The county issued a total of 142 permits in the Lake Whatcom watershed in 2019 for: accessory structures (29), land disturbance activities (6), shoreline exemptions (32), and single-family residences (75). Phosphorus limiting development regulations were applied through these permits.

Both the city and county have been actively responding to concerns about short-term rentals (STRs) in the Lake Whatcom watershed during this work plan period. The county developed both a zoning code amendment and a Shoreline Management Program (SMP) amendment to respond to this issue. In 2018, the city adopted regulations for short-term rentals. Under the new ordinance, STRs are prohibited in the city portion of the Lake Whatcom watershed.

In 2016, Whatcom County incorporated Low Impact Development (LID) standards into its stormwater code to make it the preferred approach to site development in accordance with the Western Washington Phase II Municipal Stormwater Permit. The city made similar code changes incorporating LID in 2017.

In 2019, the Lake Whatcom Management Program continued to assess forestry activities to verify that adverse water quality impacts were minimized.

Approximately 429 acres were approved for timber harvest in the Lake Whatcom watershed, an estimated 11,000 feet of road was approved for construction, over 1,500 feet of road was approved for abandonment, and 25 acres were approved to be treated with herbicides based on Forest Practice Applications (FPAs) approved by the Department of Natural Resources and effective as of 2019.

### HIGHLIGHTED PROGRESS MEASURES

Acres of phosphorus-neutral forest established in new and redevelopment since 2009

11,000

Feet of forest road construction approved in 2019

429

Acres of timber harvest approved in 2019



Native Vegetation Protection Area | Photo by HDR, 2019

# Monitoring and Data

**OBJECTIVE:** Collect and manage data to increase our understanding of water quality and pollution sources, and to guide management decisions.

The Data Management Team has continued to meet on a monthly basis since 2000. In 2019, the team participated in a review of the plan for additional monitoring to assess impacts to water quality from on-site septic systems and determined the appropriate locations for tributary monitoring during storm events. The team received regular updates on the TMDL, stormwater and sewer utility activities, fecal coliform monitoring, aquatic invasive species monitoring, lake response and loading computer model updates, and the Lake Whatcom monitoring contract with the Institute for Watershed Studies (IWS).

The City of Bellingham continues to contract with IWS for ongoing monitoring of Lake Whatcom and its

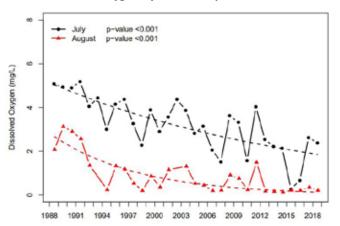
#### **Lake Whatcom Monitoring Sites**



tributaries. Long-term water quality data have been collected at established locations for such parameters as temperature, pH, dissolved oxygen, chlorophyll, nutrients, algae and fecal coliform. These data are used to identify water quality trends in Lake Whatcom and serve as an indicator of the effectiveness of our water quality improvement efforts.

Dissolved oxygen concentrations have declined over time, particularly in the lake's northernmost basins 1 and 2. As the lake stratifies during the summer months to form a warm surface layer and a cool bottom layer, oxygen levels begin to drop in the bottom layer. Unfortunately, this drop in oxygen has been happening at a heightened rate over the past several decades as the graph below illustrates.

#### Dissolved Oxygen by Year at Depth of 18m at Site 1



### HIGHLIGHTED PROGRESS MEASURES

3 Storm events sampled during tributary monitoring in 2019



Lake Whatcom water quality monitoring | Photo by WWU, 2019

# Monitoring and Data

Dissolved oxygen concentrations of 0 mg/L were measured at depths of 20 meters at both sites 1 and 2 in July of 2015, a record low for that time of year. These low levels are usually not seen until August. Since 2015, the lake has been stratifying later which has kept the oxygen concentrations above 0 mg/L through July but by August, the oxygen concentrations have continued to drop.

Whatcom County administers a contract with Brown and Caldwell consulting firm, with funding provided by the county, city, and the district, to monitor eight tributaries to Lake Whatcom during storm events. Along with IWS data, this information is input into a hydrological simulation computer model to determine the phosphorus loading to the lake. This loading data will then be incorporated into the lake response model to refine the phosphorus loading reduction targets needed to improve Lake Whatcom water quality.

Tributary monitoring | Photo by WWU, 2015

As part of the city and county's response to the TMDL, the loading model was updated to incorporate new data and documentation. Implementation of improvements to the model identified via an independent peer review (2018) is near completion.

The city and county continued to maintain contracts to conduct stormwater sampling to assess both the effectiveness of constructed stormwater treatment systems and to determine the contributions of contaminants from major tributaries to Lake Whatcom.

The Data Team also received regular updates on aquatic invasive species (AIS) monitoring activities conducted at Lake Whatcom and other nearby waterbodies. No new species have been discovered in Lake Whatcom since 2011; however, several new garden loosestrife sites were located along the Lake Whatcom shoreline in 2017 and 2019.

In 2017, the Lake Whatcom Water and Sewer District conducted an on-site sewage system (OSS, or septic systems) leachate study at the end of North Shore Road to assess the potential for water quality impacts from these systems. In 2019, the Data Team received updates on additional work that will be conducted under contract with the Lake Whatcom Water and Sewer District and Whatcom County to further assess potential pollutant loading to the lake from OSS.



AIS staff monitor for invasive species | Photo by COB, 2019



Water quality monitoring along N Shore Road | Photo by Herrera, 2017

### 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.

Since 2015, Whatcom County and City of Bellingham field staff have continued to receive training on pollution prevention, illicit discharge identification, investigation, and response. Trained staff are responsible for responding to spills city- and county-wide.

The city's Pollution Prevention Assistance Program partnered with Watershed LLC in 2017 and 2018 to provide trainings to retail garden stores on safer pesticide products. In 2018, 13 representatives from seven stores participated in two workshops. Five stores were selected to participate in the first year of the program which included customized training at each store. Trainings included information on pesticide safety, safer pest control, and how to use pesticides more effectively. Additional outreach materials were provided on preventing pests and alternative methods for pest control without using chemical pesticides.

The city started their Wash Right campaign in 2015. The Wash Right campaign, which includes newspaper ads and annual letters sent to pressure washing contractors operating within the city, aims to increase awareness about pressure washing techniques that minimize impacts to water quality. Contractors and homeowners can check out kits that include a drain insert, vacuum, and pump to collect and divert washing wastewater into the sanitary sewer.

A "spills happen" utility billing insert was sent to Bellingham residents, including Lake Whatcom Watershed residents, in 2015 to provide information on how to report a spill or other pollution. In 2018, the city continued to raise awareness about stormwater pollution and the importance of reporting spills via advertising campaigns in print, online, on buses, and in movie theaters.

County and city staff received and responded to 24 reports of illicit discharge incidents within the Lake Whatcom watershed from 2015–2019, with three of those occurring in 2019.

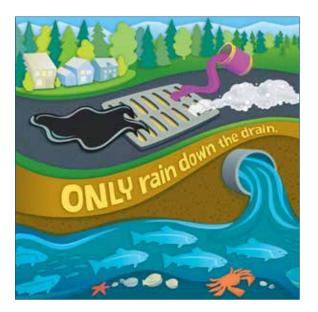


Safer Pesticide Workshop | Photo by COB, 2017

### HIGHLIGHTED PROGRESS MEASURES

354 Staff trained in spill prevention and response since 2015

24 Spills/Incidents reported since 2015



### Recreation

**OBJECTIVE:** Promote recreational opportunities that are consistent with water quality goals, and improve ways to reduce impacts of existing activities.

Whatcom County Parks and Recreation manages more than 9,500 acres of land in the Lake Whatcom watershed. In 2014, 8,844 acres of that land was reconveyed to Whatcom County for park use from the State Department of Natural Resources. After an extensive planning effort in 2015 and 2016, construction of new non-motorized recreational trails in the reconveyed lands began in the summer of 2017 with the construction of the Chanterelle Trail at Lake Whatcom Park. This two mile hike and bike trail leads from the existing trailhead to an improved overlook that provides outstanding views of Lake Whatcom, Bellingham, and Puget Sound.

In 2018, five miles of new hike and bike trail, including Rufus Creek and Cougar Ridge Trails, were constructed in the Lookout Mountain Forest Preserve. The Rufus Creek Trail leads from the existing trailhead at Lookout Mountain Forest Preserve to an improved overlook providing views of Lake Whatcom and the summit of Mount Baker. The Rufus Creek Trail then continues to its terminus at the mountain bike-only Cougar Ridge Trail.

2019 was the third consecutive summer that new trail was constructed on the reconveyed lands. At Lake Whatcom Park, a 2.7-mile extension of the Chanterelle Trail was newly constructed and the Brown Pow bike trail was improved, with sections rerouted or decommissioned to mitigate potential water quality impacts. The new portion of the Chanterelle Trail leads from the existing Chanterelle Overlook and will serve as a key link to planned 2020 trail construction.

National Trails Day Volunteers | Photo by Whatcom County, 2019

### HIGHLIGHTED PROGRESS MEASURES

211,000

Annual park visits in 2019

\*Visitation data from Whatcom County Parks with trail counters only

15.6

Miles of trails maintained in 2019

12.4

Miles of forest roads maintained in 2019

5.0

Miles of new trail constructed in 2019

8.0

Miles of trail decommissioned in 2019

### Recreation

All of these trails have been constructed to sustainable standards using best management practices outlined in the Lookout Mountain Forest Preserve and Lake Whatcom Park Recreational Trail Plan. The trails were designed in cooperation with local recreational stakeholders, and the corridor was surveyed by specialists for sensitive cultural, biological, and geologic resources. Along with the work completed by staff, a Washington Conservation Corps crew, and contractors; community volunteers provided significant support to trail construction efforts from 2017 to 2019.

Other annual work activities included ongoing maintenance of existing trails and forest roads, as well as visitor education and invasive plant management.

Over 211,000 individuals visited the Lake Whatcom Park trails, Stimpson Reserve trails, and Lookout Mountain Forest Preserve trails in 2019. Since 2015, over 780,000 visits have been documented on these trails using trail counters.

In addition to County activities, the City of Bellingham Parks and Recreation Department installed new docks and pilings at the Bloedel Donovan Park boat ramp in 2018. The existing floats had been in service for over 35 years and needed to be replaced. This project was partially funded by a Boating Facility Grant through the State of Washington Recreation and Conservation Office.

### HIGHLIGHTED PROGRESS MEASURES

**783,586** Park visits since 2015

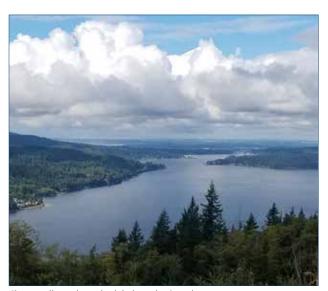
\*Visitation data from Whatcom County Parks with trail counters only

12.0

Miles of new trail constructed since 2015

1.8

Miles of trail decommissioned since 2015



Chanterelle trail overlook | Photo by S. Duling, 2017



Greater Bellingham Running Club Volunteers Photo by Whatcom County, 2019



YMCA Trail Blazer Volunteers | Photo by YMCA, 2019

# **Aquatic Invasive Species**

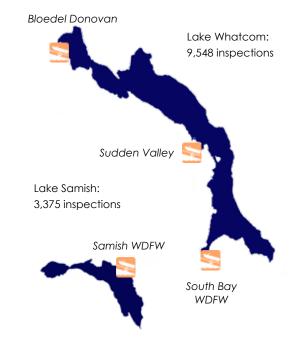
**OBJECTIVE:** Prevent new aquatic invasive species (AIS) introductions to Lake Whatcom and other waterbodies and minimize impacts associated with established invasive species.

In 2019, 18 inspectors conducted 12,923 watercraft inspections and sold 2,586 annual permits, 245 small vessel permits, 84 three-day passes, 800 single-day passes and 3,321 non-motorized permits to help protect Lake Whatcom. Total revenue from fees in 2019 was approximately \$159,000.

In 2019, 9,548 watercraft inspections were conducted at Lake Whatcom with the remaining inspections occurring at Lake Samish. Inspected watercraft last visited 289 different waterbodies in 20 different states/provinces prior to launching at Lake Whatcom or Lake Samish, including nine waterbodies infested with invasive mussels. In 2019, 486 boats carried standing water that had to be drained, 169 boats carried aquatic plants that had to be removed, and seven boats were fully decontaminated prior to launching.



AIS Crew | Photo by COB, 2019



Aquatic invasive species staff monitor several Whatcom County lakes annually to detect the presence/absence of new aquatic invasive species infestations as well as to monitor the spread of existing aquatic invasive species. Surveys are conducted annually along the shoreline as well as by boat. No new aquatic invasive species have been documented in Lake Whatcom as a result of these survey efforts; however, several new garden loosestrife sites were located along the Lake Whatcom shoreline in 2017 and 2019 and 12 new Asian clam colonies have been documented at Lake Whatcom since 2015.

### HIGHLIGHTED PROGRESS MEASURES

56,037

Boats inspected since 2015

1,273

Boats carried standing water that had to be drained since 2015

796

Boats carried aquatic plants that had to be removed since 2015



Inspection at Bloedel Donovan | Photo by COB, 2019

# **Aquatic Invasive Species**

Since 2015, the Whatcom AIS Program has continued to increase awareness about AIS and the boat inspection program by providing outreach at check stations and during events. Other outreach opportunities have included providing information during school field trips, hosting outreach booths at fairs, as well as via advertising campaigns in print, online, on buses, and in movie theaters. Inspectors have also interacted with over 9,900 non-boating visitors at the check stations since 2015, with over 1,500 of them stopping by during the 2019 season.

In 2019, the Whatcom AIS Program was featured as part of the Invasive Species and Exotic Pest Workshop hosted by Washington State University Extension in Bellingham as well as at the Innovations in Invasive Species Management Conference held in Coeur d'Alene, Idaho.

Over 8,300 people visited the Whatcom Boat Inspections website in 2019 for program updates, fee information, inspection location details, AIS prevention tips, 2018 inspection results, and to access the AIS Awareness Course.

An online AIS Awareness Course was developed in 2014 and was in use throughout the current reporting period. It takes approximately 30 minutes to complete and aims to educate the participants about AIS prevention and boat inspection practices to help stop the spread of AIS to Whatcom County waters. Discounts on annual permit fees are offered to those successfully completing the course. The course has been successfully completed over 12,150 times since it was launched with over 2,700 people passing it in 2019.

### HIGHLIGHTED PROGRESS MEASURES

12,150 People completed online AIS Awareness Course since 2014

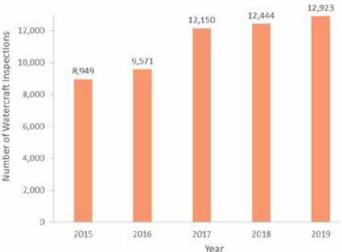
Visitors at check stations since 2015

8,375 People visited Whatcom Boat Inspections website in 2019

#### Number of watercraft inspections conducted from 2015-2019



Salmon Row and Paddle Event | Photo by COB, 2019





Boat Decontamination | Photo by COB, 2019

# **Utilities and Transportation**

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

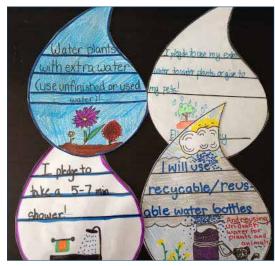
Lake Whatcom is the drinking water supply for over 100,000 people in Bellingham and Whatcom County. The City of Bellingham and the Lake Whatcom Water and Sewer District work hard to provide their customers with high quality drinking water. By encouraging their customers to conserve water, these utilities are ensuring Lake Whatcom meets water supply needs today and into the future.

In 2019, the city's Water Use Efficiency Program continued to leverage existing partnerships to promote indoor and outdoor water conservation. The strong partnership with the Community Energy Challenge allows single-family and multi-family residences, as well as commercial and institutional water customers, to receive direct recommendations for increased water efficiency with water and energy assessments for participants. In 2019, 240,000 gallons were saved through multi-family residential rebate projects and 120,000 gallons were saved through single-family residential rebate projects.

To reduce the summer water demand, the city introduced a new online pledge for outdoor water conservation in 2019. This pledge is available on the city's website (www.cob.org/conserve) and every person that takes the pledge can select a free outdoor water conservation tool, such as hose timers, moisture meters or low-flow spray nozzles.

In 2019 we were able to see a full year's worth of water conservation from the installation of the new pretreatment process at the Water Treatment Plant, with an estimated annual savings of 70 million gallons. The construction of the Dissolved Air Flotation (DAF) pre-treatment system was completed in October 2018.

This pre-treatment process was added to reduce filter clogging and the DAF technology, while used throughout the US and Europe, was the first in Washington State. Not only does the pre-treatment process ensure long-term treatment of raw water from Lake Whatcom, it also reduces the number of times filters need to be cleaned, resulting in substatial savings of treated water.



Youth Water Conservation Art Example

#### HIGHLIGHTED PROGRESS MEASURES

1,052,000 Gallons saved through Single

Gallons saved through Single-Family Residential Rebate Projects since 2015

700,000

Gallons saved through Multi-Family Residential Rebate Projects since 2015

2,959

Students participated in the Water Conservation Education Program since 2015

Since 2015, almost 3,000 students have participated in the city supported water conservation education program, with 664 of those students participating in 2019. The water conservation education program teaches youth, grades K-12, about the importance of conserving water and engages them in action projects to reduce water use in the community.

# **Utilities and Transportation**

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

The Lake Whatcom Water and Sewer District was formed in 1968 to provide sewer service to many homes on septic systems around Lake Whatcom that were believed to be impacting lake water quality. The district now provides water and sewer service to residences in areas of the Lake Whatcom watershed that are not in the City of Bellingham's service area.

The district has employed water conservation efforts for numerous years that rely on voluntary compliance and continued efforts to identify leaks and repair them. The district encourages water conservation via notices through its website, billings, and outdoor signage during the summer months.

The district continues to maintain and replace older sanitary sewer infrastructure in the watershed, following its ongoing six-year capital improvement plan, with the intent of reducing the potential of sewer overflows and finding and fixing leaks within sewer lines. The district also aggressively seeks out and repairs water system leaks throughout the year.

The day with the highest water use in 2019 occurred on July 16 with 828,400 gallons being used by district customers during a 24 hour period. This is compared to a maximum day demand of 874,000 gallons on August 6 in 2018.

Significant projects in 2019 included: replacement of the Geneva Sewer Pump Station, originally installed in 1974; removal of the Country Club Sewer Pump Station in Sudden Valley by construction of a gravity sewer main using horizontal directional drilling technology; and installation of a backup generator at the Airport Sewer Pump Station in Sudden Valley. The district operates and maintains 28 sewer pump stations and has been systematically replacing and/or renewing one to two sewer pump stations every year.

Other significant projects completed since 2015 include the replacement of the Par Sewer Pump Station in Sudden Valley, updating the district's Water System Comprehensive Plan, and the addition of new on-site emergency generators at several sewer pump stations to reduce the likelihood of a sewer spill during extreme weather events.

Starting in 2017, the district began funding a study to assess the pollution potential to Lake Whatcom of phosphorus and fecal coliform from over 90 septic systems at the south end of North Shore Road.

Since 2015, 83 new connections have been made within 200 feet of a sewer line. 20 of those were made in 2019. including the conversion of one existing home that was previously on a septic system.

#### HIGHLIGHTED PROGRESS MEASURES

**828,400** Gallons per day

Maximum Day Demand in 2019 (District)

New connections made within 200 feet of sewer line since 2015



Construction at Country Club Pump Station | Photo by LWWSD, 2019

# **Education and Engagement**

**OBJECTIVE:** Protect water quality by educating and engaging watershed residents and visitors.

The Lake Whatcom Management Program continues to engage members of the community in lake protection and pollution prevention activities by providing informational resources, offering motivational incentives, and removing barriers that make it difficult for people to take action. Education and engagement activities are described in this section and are also included in other program areas.

Highlights from multiple program areas include:

- A draft Lake Whatcom watershed resident guide was developed in 2019 for publication in 2020. The guide provides information and resources to watershed residents about Lake Whatcom stewardship.
- 596 surveys were completed for the Lake Whatcom
  watershed resident survey administered in fall 2018.
  The survey will be repeated every five years to track
  resident behaviors, knowledge, and attitudes related
  to the health of Lake Whatcom over time. Survey
  results will be used to craft outreach programs that
  provide appropriate information, messaging, and
  tools to help residents adopt beneficial behaviors that
  result in improved lake health.
- The Lake Whatcom Management Program website was visited by over 4,998 unique users in 2019 to learn about Lake Whatcom watershed news, information, and resources.
- Over 6,000 postcards were mailed to eligible
   Homeowner Incentive Program (HIP) households

- in 2019 to promote participation in the program. Additional HIP outreach included Facebook ads, Nextdoor announcements, yard signs, radio ads, print ads, and street signs located throughout the HIP-eligible portion of the watershed.
- Three Do-It-Yourself Native Landscaping workshops were attended by 38 Lake Whatcom households in 2019. In addition, 11 households participated in a new online workshop option. These workshops provided information to homeowners about native landscape design and implementation and how to participate in the DIY program.



HIP participant | Photo by G. Mednick, 2019

#### HIGHLIGHTED PROGRESS MEASURES

6,000

Postcards sent to watershed residents about HIP in 2019

4,998

Unique visitors to website in 2019

596

Lake Whatcom watershed resident surveys completed in 2018

49

Households participated in DIY Native Landscaping workshops in 2019



We Scoop Pickford Ad

# **Education and Engagement**

Additional highlights from multiple program areas include: •

- 825 5<sup>th</sup> grade students and 132 adult volunteers learned about Lake Whatcom water quality issues, water and wastewater treatment, water conservation, and stormwater pollution prevention through the city's *Bellingham Water School* program in 2019.
- 158 middle/high school students participated in stormwater workshops through the city's *Bellingham Water School* program in 2019.
- 87 community members learned about water and wastewater treatment through tours of the water treatment and wastewater treatment plants in 2019.
- The city created an online stormwater tour to help the public learn about stormwater treatment facilities throughout the city, including a large filtration facility at Bloedel Donovan Park. The tours can be viewed at http://stormwater.cob.org.



Bellingham Water School Visit | Photo by P. Conrad, 2019

- The county conducted a dog waste outreach campaign at Lake Whatcom Park in 2019. Temporary signs using humorous slogans were placed along the trail to encourage dog walkers to "Scoop it, Bag it, and Trash it."
- The city encourages dog owners to scoop the poop every time, at home and on walks, and put it in the trash through their city-wide We Scoop Campaign.
   The campaign includes a pledge promoted via an annual dog photo contest.
- The Lake Whatcom Water and Sewer District provided over 20,000 mutt mitts for pet waste pick up at 14 locations around Lake Whatcom in 2019.
- The county continued outreach efforts to septic system owners promoting the benefits of routine septic system inspection and preventative care through radio ads, Facebook posts, and free trainings.
- The Whatcom County Health Department trained and certified 82 homeowners to evaluate their own on-site septic systems from 2015–2019.
- 592 students participated in water use efficiency workshops and 542 completed Water Use Efficiency Action Projects.
- The city raised awareness about causes and impacts of stormwater pollution and how to prevent the spread of aquatic invasive species via advertising campaigns in print, online, on buses, and in movie theaters.

### HIGHLIGHTED PROGRESS MEASURES

Students participated in the Bellingham Water School program in 2019

People participated in Gardening Green
Sustainable Landscaping
Course since 2015

87

Community members
participated in tours of the
water and wastewater
treatment plants in 2019



Bellingham Water School Visit | Photo by P. Conrad, 2019

## Administration

**OBJECTIVE:** Coordinate and support implementation of the Lake Whatcom Management Program Work Plan.

From 2015–2019, Lake Whatcom Management Program administrators continued to coordinate the Interjurisdictional Coordinating Team (ICT) and Program Area Committee activities to support the successful implementation of the 2015-2019 Lake Whatcom Management Program Work Plan.

Joint meetings of the city and county councils and the Lake Whatcom Water and Sewer District Commission were held annually to discuss program accomplishments from the Lake Whatcom Management Program progress reports and planned activities for future years.

The ICT met on an as-needed basis to prepare topics for meetings of the Lake Whatcom Policy Group, compile reports, and discuss program updates.

Lake Whatcom Policy Group meetings were held quarterly to discuss Lake Whatcom work plan activities with elected representatives from each jurisdiction. Topics included: updates on the North Shore septic system study administered by the Lake Whatcom Water and Sewer District, the TMDL Detailed Implementation Plan, stormwater capital projects, the Homeowner Incentive Program, tributary and lake monitoring and model updates, the land acquisition program, forestry management, recreation trends and challenges in the watershed, the aquatic invasive species prevention program, and updates on a stormwater utility service area funding study.

Whatcom County Council established a new Lake
Whatcom Stormwater Utility Service Area in December
2017 to provide additional funding for efforts to clean up
and protect Lake Whatcom. In 2018, the county initiated
a funding study to evaluate stormwater fee rate
structure options. Whatcom County completed the
process to establish the Lake Whatcom Stormwater
Utility in 2019. The new utility will only apply to
developed lots with impervious surfaces in the Lake
Whatcom watershed outside of city limits. Parcels within
the city already pay a stormwater utility fee to the city,
part of which is used to fund Lake Whatcom
Management Program efforts.

Stakeholder input and recommendations on the county stormwater utility rate structure were provided by a citizen advisory committee from June 2018 to March 2019. A public meeting was held on April 30, 2019 to present the committee's recommendations, explain the public process, and answer questions. Fifty people attended. County council discussed the proposed rate ordinance at six meetings and adopted a final rate ordinance in July. Fees will be phased in over time. In 2020, 50% of the annual fee will be collected. The full rates will be charged starting in 2021.

### HIGHLIGHTED PROGRESS MEASURES

**9** ICT meetings held in 2019

3 Lake Whatcom Policy Group meetings held in 2019



Lake Whatcom | Photo by T. Ward, 2019

# 2015-2019 Accomplishments Report – Expenditures

2015-2019 Work Plan Expenditures										
Program Area	Staff Costs	Capital Costs	Other Costs*	5-Year Total						
1. Land Preservation	\$837,657	\$13,429,468	\$3,105,289	\$17,372,414						
2. Stormwater	\$2,091,324	\$6,423,201	\$969,215	\$9,483,740						
3. Land Use	\$110,000	_	\$30,000	\$140,000						
4. Monitoring & Data	\$130,000	-	\$1,933,670	\$2,063,670						
5. Hazardous Materials	\$50,000	_	-	\$50,000						
6. Recreation	\$641,988	\$311,916	\$102,904	\$1,056,808						
7. Aquatic Invasive Species	\$1,982,902	\$5,000	\$198,452	\$2,186,354						
8. Utilities & Transportation	\$1,030,000	\$8,353,859	\$373,000	\$9,756,859						
9. Education & Engagement	\$158,915	_	\$70,546	\$229,461						
10. Administration	\$481,000	_	\$209,907	\$690,907						
LWMP Work Plan Total	\$7,513,786	\$28,523,444	\$6,992,983*	\$43,030,213						

<sup>\*</sup> Other Costs include supplies, materials, equipment, consultant fees, interfund charges, taxes, bank charges, and procedural costs.

### Resources

#### **Land Preservation**

Lake Whatcom Property Acquisition Program cob.org/services/environment/lake-whatcom/pages/lw-property-acquisition-program. aspx

Whatcom County Parks & Recreation—Reconveyance whatcomcounty.us/625/Lake-Whatcom-Reconveyance

Protected Property in the Lake Whatcom Watershed Map cob.org/documents/pw/lw/acquisition-land-map.pdf

#### **Stormwater**

Lake Whatcom Management Program Capital Improvement Projects lakewhatcom.whatcomcounty.org/our-programs/capital-projects

Capital Projects Update: Presentation (12/01/2014) lakewhatcom.whatcomcounty.org/resources

City of Bellingham 2007 Comprehensive Stormwater Plan 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

Whatcom County Lake Whatcom Capital Project Plan Update whatcomcounty.us/DocumentCenter/View/30912

Homeowner Incentive Program lakewhatcomHIP.org

### **Land Use**

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

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

Lake Whatcom Watershed Annual Build-Out Analysis Report lakewhatcom.whatcomcounty.org/resources

Short-Term Rental Regulations: City of Bellingham cob.org/services/planning/development/Pages/short-term-rentals.aspx

### **Monitoring and Data**

Lake Whatcom Monitoring Reports cedar.wwu.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

Whatcom County Disposal of Toxics whatcomcounty.us/833/Disposal-of-Toxics-Facility

Thurston County: Grow Smart, Grow Safe® <a href="https://www.growsmartgrowsafe.org/">https://www.growsmartgrowsafe.org/</a>

Don't Drip and Drive fixcarleaks.org

Stormwater Hotline: (360) 778-7979

cob.org/services/environment/stormwater/pages/stormwater-report-form.aspx

### Recreation

Whatcom County Parks and Recreation—Reconveyance whatcomcounty.us/625/Lake-Whatcom-Reconveyance

Lookout Mountain Forest Preserve and Lake Whatcom Park Recreational Trail Plan whatcomcounty.us/DocumentCenter/View/23920

Whatcom County Comprehensive Parks, Recreation and Open Space Plan whatcomcounty.us/DocumentCenter/View/14547

City of Bellingham Comprehensive Parks, Recreation and Open Space Plan cob.org/documents/parks/development/pro-plan/pro-plan-full.pdf

### Resources

### **Aquatic Invasive Species**

Lake Whatcom Aquatic Invasive Species Program Annual Reports and Documents lakewhatcom.whatcomcounty.org/resources

Whatcom Boat Inpections whatcomboatinspections.com

Aquatic Invasive Species Awareness Course whatcomboatinspections.com/ais-awareness-course

2019 Inspection Results Story Map 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

Lake Whatcom Water and Sewer District Consumer Confidence Reports <a href="https://www.district.consumer-confidence-reports/">https://www.district.consumer-confidence-reports/</a>

City of Bellingham Water Conservation Resources <a href="mailto:cob.org/conserve">cob.org/conserve</a>

Whatcom County On-Site Sewage System Program, WCC 24.05 whatcomcounty.us/documentcenter/view/2053

Lake Whatcom Water and Sewer District 2018 Water System Comprehensive Plan <a href="https://www.district.com/water-system-comprehensive-plan/">wwsd.org/resources/water-system-comprehensive-plan/</a>

Lake Whatcom Water and Sewer District 2014 Sewer Comprehensive Plan <a href="https://www.district.com/lever-plan/">lwwsd.org/resources/comprehensive-sewer-plan/</a>

Whatcom Smart Trips whatcomsmarttrips.org/

Community Energy Challenge sustainableconnections.org/energy/energychallenge

### **Education and Engagement**

Lake Whatcom Management Program lakewhatcom.whatcomcounty.org

City of Bellingham Lake Whatcom Stewardship cob.org/services/environment/lake-whatcom/pages/stewardship-solutions.aspx

Bellingham Water School - Water and Me cob.org/services/environment/education/Pages/5th-grade.aspx

Bellingham's Stormwater Discovery Tours stormwater.cob.org

WSU Whatcom County Extension Sustainable Landscaping whatcom.wsu.edu/ch/sustainable.html

Homeowner Incentive Program lakewhatcomHIP.org

Lake Whatcom Watershed Baseline Survey 2018
<a href="mailto:lakeWhatcomWatershedBaselineSurvey">lakeWhatcom.whatcomcounty.org/LakeWhatcomWatershedBaselineSurvey</a>
Findings2018 Final.pdf

#### **Administration**

1992 Lake Whatcom Joint Resolution lakewhatcom.whatcomcounty.org/1992JointResolution.pdf

Lake Whatcom Management Program Work Plans and Progress Reports lakewhatcom.whatcomcounty.org/resources

Lake Whatcom Meetings and Agendas lakewhatcom.whatcomcounty.org/news

Lake Whatcom Management Program Contacts lakewhatcom.whatcomcounty.org/contacts

Lake Whatcom Stormwater Utility whatcomcounty.us/2830/Lake-Whatcom-Stormwater-Utility



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

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

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

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



www.lakewhatcom.whatcomcounty.org