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Lake Whatcom Management Program 2025-2029 Work Plan

Prepared by the Lake Whatcom Interjurisdictional Coordinating Team

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PROGRAM OVERVIEW

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(1) 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 governments and organizations work to promote stewardship and take cooperative action to restore water quality, protect environmental health and preserve healthy forests in the watershed.

The 2025–2029 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).

Statement from County Executive, City Mayor, District General Manager

As 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 under a changing climate.

This updated work plan builds on over three 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.

(2) 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.

Recently, it has become more apparent that impacts from climate change amplify threats to Lake Whatcom. Climate change also brings concerns about wildfire risk and climate resiliency. Furthermore, some concerns have re-emerged about forest practices. As such, Climate Action and Forest Management have been added as two new program areas in the 2025-2029 Work Plan. Consequently, current management efforts are now focused in twelve program areas, comprehensively addressing watershed health. Work plans are developed by LWMP partners. The 2025–2029 Work Plan is the sixth 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 2025–2029 Work Plan is organized by program areas, each with specific objectives and planned activities.

(3) Watershed and Lake Facts

<u>Population and Drinking Water Supply</u>

- 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 19,000 people live in the Lake Whatcom watershed (2020 estimate).
- Approximately 33% of the watershed population lives within the City of Bellingham and approximately 67% live outside city limits in unincorporated Whatcom County.

<u>Physical Characteristics</u>

- 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 deepest point is 334 feet below the surface.

(4) 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.

(5) Addressing the Challenges

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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.

> **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.
>
> **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.

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

> **Management Challenge:** 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.
>
> **Our Response:** 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 and construct stormwater treatment facilities to capture pollution before it enters the lake.

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

> **Management Challenge:** 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: 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.

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. 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.

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

Management Challenge: 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.

Our Response: 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.

Objective: Create resiliency by adapting to changing weather patterns and ecological conditions due to climate change impacts to Lake Whatcom and its watershed.

Management Challenge: Climate models indicate that the Pacific Northwest is projected to warm significantly by 2100, a result of greenhouse gases emitted from human activities. Higher average annual temperatures, higher average summer temperatures, and longer and more frequent extreme heat events will impact water quality and forest health of the Lake Whatcom watershed. Lake Whatcom and its watershed will experience increasing ambient air temperatures and changes in precipitation cycles. These impacts will necessitate actions that mitigate for carbon emissions, adapt programs and practices due to changes in weather patterns, and build climate resiliency throughout the Lake Whatcom Managment Program.
Our Response: Assess the impacts of climate change and adapt programs as necessary to prevent and mitigate this threat. Current programs aim to address climate impacts that affect ongoing LWMP activities. Future programs, projects, and policies that increase climate mitigation, adaptation, or resiliency will be developed and implemented through the addition of a Climate Action program area in the 2025-2029 Lake Whatcom Work Plan.

(6) 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.

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, 2024 – July 31, 2030 and typically include specific actions that the city and county are required to complete during the permit cycle.

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.

(7) Program Development & Accomplishment Timeline

1992-1999

1992: Joint Resolution adopted to establish common goals for Lake Whatcom watershed

1992: City stormwater capital improvement program began

1993: Sudden Valley Community Association began density reduction program to remove 1,400 potential dwelling units

1998: Lake Whatcom Management Program (LWMP) established by Interlocal Agreement

1998: 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

1999: County Water Resource Protection Overlay District and Stormwater Special District established

1999: LWMP 1999 Work Plan adopted

2000-2004

2000: LWMP 2000-2004 Work Plan adopted

2000: City stormwater capital improvement program expands to address phosphorus

2000: Interjurisdictional Coordinating Team (ICT) created to coordinate activities and programs between jurisdictions

2001: City adopted first land use regulations for new development on properties that drain to Basin 1 (Lake Whatcom Reservoir Regulatory Chapter [BMC 16.80])

2001: City stormwater utility established; provided funding for Lake Whatcom protection

2001: City Lake Whatcom Property Acquisition Program began

2001: Watershed Advisory Board established

2002: County rezone reduced 1,800 potential dwelling units

2005-2009

2005: LWMP 2005-2009 Work Plan adopted

2005: City and county passed phosphorus fertilizer ban

2005: City and county banned boats with carbureted 2-stroke engines

2006: County stormwater capital improvement program with focus on phosphorus treatment began

2008: Lake Whatcom Policy Group formed

2008: City Residential Stormwater Retrofit Program began

2009: City amended the Lake Whatcom Reservoir Regulatory Chapter

2010-2014

2010: LWMP 2010-2014 Work Plan adopted

2011: Homeowner Incentive Program launched

2012: Aquatic Invasive Species Prevention Program began

2013: County amended Title 20 to create the Lake Whatcom Watershed Overlay District to reduce impacts from development and land use activities

2014: Sudden Valley Community Association joined Policy Group

2014: Department of Natural Resources (DNR) finalized reconveyance of 7,800 acres in the watershed to Whatcom County Parks

2015-2019

2015: LWMP 2015-2019 Work Plan adopted

2016: Lake Whatcom TMDL for phosphorus and fecal coliform approved by Environmental Protection Agency (EPA)

2016: New phosphorus loading model developed

2017: Homeowner Incentive Program revised and expanded

2019: Update of lake response model initiated

2019: County Lake Whatcom stormwater utility established to provide funding for Lake Whatcom protection

2019: City and county National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permits issued (TMDL response requirements included in the new permit)

2020-2024

2020: LWMP 2020-2024 Work Plan adopted

2021: Homeowner Incentive Program exceeds 1,000,000 square feet improved by participants and $1M in reimbursements to qualifying homeowner projects since 2011

2021: City of Bellingham-developed Phosphorus-Optimized Stormwater Treatment (POST) system formally approved for use by the Department of Ecology's Technical Assessment program

2021: Whatcom County Sheriff's Office implements regular boat patrols on Lake Whatcom to enforce compliance with AIS permits and regulations

2022: Neighborhood Native Landscaping Program launches in unincorporated Whatcom County

2022: Park Place Water Quality Facility rebuilt to meet highest-known phosphorus reduction performance using POST media system

2023: Lake Whatcom Land Acquisition and Preservation Program achieves largest number of transactions in a single year (16)

2024: City and County National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permits issued

2024: Lake Whatcom Aquatic Invasive Species Rapid Response Plan Request for Proposals published

(8) 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 Aquatic Invasive Species and compliance with inspection requirements.

In 2024

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. 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. Other metrics have been carried over from the last work plan and provide 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 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 since 2015.

*Target is subject to change pending modeling results.

(9) Program Areas and Objectives

The 2020-2024 Lake Whatcom Management Program (LWMP) Work Plan focused efforts in ten program areas. The 2025-2029 Work Plan focuses on those same program areas and adds two more program areas: Climate Action and Forest Management for a total of twelve. 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, 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 Management- Protect and restore water quality in Lake Whatcom and its tributaries by using best management 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 and 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 Prevention- Prevent new aquatic invasive species (AIS) introductions to Lake Whatcom and minimize impacts associated with established invasive species.
8. Utilities and Transportation- Prevent water quality and quantity impacts from water, sewer, and transportation systems.
9. Education and 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.
11. Climate Action- Build resiliency and adapt to negative impacts caused by changes in ecological and environmental parameters associated with a changing regional climate, increased temperatures, and variations in rainfall patterns.
12. Forest Management- Implement strategies on forest lands that minimize water quality impacts from harvesting and/or recreational activities while simultaneously managing forested lands to minimize wildfire threats.

Program Area 1: 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.

2025-2029 Estimated Investments: $28,423,615

The Land Preservation program area has a primary objective to acquire lands for the protection of water quality, with a secondary objective of providing for passive recreational opportunities where appropriate. The Land Preservation program area has some overlap with other program areas including the Recreation program area wherein the primary and secondary objectives of the Recreation program area are transposed to reflect the difference in its primary goal.

1.1 Property Protection

Acquire property using a variety of methods such as purchase, 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 Evaluate the use of other programs to augment the watershed acquisition program to purchase watershed properties.

1.2 Property Management

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

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

2.2.1. Update property maintenance guidelines to provide clarity for city field staff. The new document will outline City response to requests for recreational development on city managed 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

Program Area 2: Stormwater Management

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

2025-2029 Estimated Investments: $14,350,916

The Lake Whatcom Management Program (LWMP) addresses stormwater pollution by working with experts in the fields of engineering and water chemistry and landowners throughout the watershed to develop treatment strategies including preventing pollution at its source, filtering stormwater though 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 new capital stormwater facilities and rebuild aging facilities and infrastructure in accordance with capital improvement and retrofit plans adopted by the City of Bellingham and Whatcom County

2.1.2 Pursue funding opportunities, including grants, for projects identified in capital or retrofit list(s)

2.2 Residential Stormwater Solutions

Work with landowners to 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 and encourage voluntary stewardship by landowners.

2.2.2 Encourage the implementation of stormwater treatment practices, including infiltration and media filtration, on private properties through outreach, technical assistance, and barrier removal. Support, through incentives and technical assistance, the proper construction and maintenance of voluntary installations.

2.2.3 Encourage the conversion of non-native landscape and lawn to native forested areas and the preservation of forested areas through incentives and permanent conservation agreements with landowners.

2.2.4 Provide inspections and/or technical assistance to owners of private stormwater facilities and document performance toward water quality improvements for properly maintained systems.

2.2.5 Provide resources and staff support for owners of private stormwater facilities about system needs and maintenance.

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.

2.3.2 Complete an evaluation of the effectiveness of Operations and Maintenance (O&M) procedures for stormwater flow control and treatment facilities. Develop a list of recommended improvements to O&M practices and procedures to increase phosphorus and bacteria reductions.

2.3.3 Complete an evaluation of the effectiveness of pollutant management activities on public lands throughout the watershed. Develop a list of recommended best practices for public land management for phosphorus and bacteria control.

2.3.4 Adopt an Enhanced Maintenance Plan to maximize phosphorus and bacteria reductions and begin implementation of this plan.

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.

2.4.2 Develop a consistent and understandable way of estimating ***relative*** water quality benefits achieved by other relevant program areas.

2.4.3 Develop metrics for phosphorus reductions for mass per unit time (Lbs P/YR) and effective developed acres.

Reporting Metrics:

- Pounds of phosphorus reduced per year, expressed as mass per unit time (LbP/Yr), through activities in the following categories:
    - Phosphorus treatment and flow control capital projects
    - Voluntary residential improvements
    - Required land use regulations applied to developed lots
    - Operations and maintenance activities as described in Operations and Maintenance plans

Program Area 3: Land Use

OBJECTIVE: Prevent and minimize water quality impacts from new development and redevelopment.

2020-2024 Estimated Investments: $1,825,000

The Lake Whatcom Management Program (LWMP) relies on development regulations and reporting metrics to minimize and assess water quality impacts from development and redevelopment.

3.1 Development

Provide consistency with land use goals, policies and 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 Buildout Report.

4.1.2 Monitor newly established Native Vegetation Protection Areas (NVPA) for five years as required by code to ensure success.

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

6.1.2 Evaluate the effectiveness of changes to development regulations to preserve and restore land that might otherwise be susceptible to development or other land disturbance to protect water quality and fish and wildlife habitat.

Reporting Metrics:

- Acres of native vegetation protected as forest in perpetuity as a result of land use regulations
- Proportion of watershed residents who are knowledgeable about seasonal construction regulations measured every five years through the Lake Whatcom Watershed Baseline Survey.
- Proportion of watershed residents who are knowledgeable about building and clearing regulations measured every five years through the Lake Whatcom Watershed Baseline Survey.
- Acres of developed surface treated by phosphorus-limiting Best Management Practices (BMPs) installed to meet requirements of land use regulations
- Acres of newly established NVPAs through new development and redevelopment

Program Area 4: Monitoring & 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.

2025-2029 Estimated Investments: $3,077,050

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, 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.
5.1.1 Evaluate monitoring results and receive updates on water quality trends.
6.1.1 Conduct Lake Whatcom Climate Vulnerability Assessment.

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.
5.2.1 Oversee and refine tributary monitoring contracts to improve hydrologic model.
6.2.1 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.

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 Collect high quality streamflow, water quality, and weather data.
5.4.1 Evaluate additional data needs and studies regarding phosphorus loading and models (e.g., groundwater inflow, internal loading, etc.).

4.5 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.
5.6.1 Maintain and update data catalog.
6.6.1 Provide open access storage of monitoring reports.
7.6.1 Track the status of Ecology-approved Quality Assurance Project Plans.

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 5: 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: $114,850

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 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.
6.2.1 Educate watershed residents and visitors on how to prevent and report spills.
7.2.1 Continue to record and respond to calls regarding illicit discharges or spills received via the stormwater hotline number.
8.2.1 Review spill response procedures and reporting protocols.
9.2.1 Conduct ongoing field staff training regarding spill prevention and response.

Reporting Metrics:

- 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

Program Area 6: Recreation

OBJECTIVE: Provide access to recreational opportunities that are consistent with water quality and land management goals.

2025-2029 Estimated Investments: $6,150,000

The Recreation program area is focused on providing recreational opportunities that are consistent with watershed stewardship goals.

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 dog waste receptacles, and restrooms) and explore options for improving existing facilities and providing these amenities at facilities where they do not currently exist.

6.1.2 Implement Integrated Pest Management strategies in public parks that are low maintenance and nutrient-free.

6.1.3 Infiltrate or treat stormwater following stormwater Best Management Practices (BMPs).

6.1.4 Ensure recreational opportunities offered through third-party vendors comply with water quality goals and land use regulations.

6.2 Trails

Manage trails and park roads to reduce impacts to water quality.

6.2.1 Build and maintain trails in accordance with approved plans, appropriate BMPs and regulatory requirements to prevent erosion and ensure runoff is infiltrated and/or treated before reaching a water body.

6.2.2 Identify and remove unauthorized trails, prioritizing the most impactful trails to water quality first.

6.2.3 Connect trails to other parks, trails, facilities and transportation networks as appropriate.

6.2.4 Provide trailhead amenities such as restrooms, dog waste stations, and information kiosks, where appropriate.

6.2.5 Install directional signs on trails to discourage off-trail usage.

6.3 Public Access

Provide low impact public access opportunities.

6.3.1 Provide public access using existing parks, launches, and trails where appropriate.

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 as appropriate.

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.

7.4.1 Engage recreational user groups (e.g. hikers, mountain bikers, horseback riders, boaters, etc.) in practices that protect water quality.

Reporting Metrics:

- Miles of user-built trails decommissioned 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 7: Aquatic Invasive Species

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

2025-2029 Estimated Investments: $4,441,206

The Lake Whatcom Management Program (LWMP) launched the Aquatic Invasive Species 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.

8.1.1 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.

9.1.1 Increase signage at informal hand launch locations.

10.1.1 Continue regular boat patrols by Whatcom County Sheriff's Office to provide boater and AIS education and enforcement.

11.1.1 Evaluate operational changes that may decrease risk or increase efficiency.

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.

8.2.1 Monitor for new introductions and the extent and density of established aquatic invasive species through activities such as: aquatic plant surveys, shoreline monitoring events, trapping and water sampling.

9.2.1 Develop a voluntary AIS monitoring and reporting program for Lake Whatcom.

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.

8.3.1 Identify all current management tools and Best Management Practices (BMPs) that could be implemented in Lake Whatcom to address any potential species of concern.

9.3.1 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
- Number of sheriff patrols on Lake Whatcom.
- 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 8: Utilities & Transportation

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

2025-2029 Estimated Investments: $7,709,868

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.
9.1.1 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 appropriate.
9.2.1 Maintain and replace sewer infrastructure to reduce the potential of sewage overflows.
10.2.1 Enforce OSS system operation and maintenance regulations, maintain OSS database, and respond to failing systems.

8.3 Roads and Transportation

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

Employ road design standards to reduce impacts to water quality.
8.3.1 Perform enhanced maintenance actions (i.e., additional street sweeping, more frequent cleaning of catch basins, more frequent replacement of stormwater filters, etc.) to reduce impacts to water quality.
9.3.1 Encourage watershed residents and visitors to use of alternative transportation in the watershed.
10.3.1 Work with Whatcom Transit Authority to preserve and promote public transit routes.

Reporting Metrics:

- Implement adopted Bike & Pedestrian plans
- Proportion of watershed residents who are knowledgeable of water conservation concerns in regard to water supply from Lake Whatcom 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 by compliance status (satisfactory; maintenance needed; failure) in the Lake Whatcom watershed
- Number of sewer overflows that reach Lake Whatcom 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

Program Area 9: Education & Engagement

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

2025-2029 Estimated Investments: $1,035,000

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.

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.

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.

9.1.5 Utilize the findings from the 2024 Lake Whatcom Survey to develop programming for topics in program areas where additional education and outreach is needed. For example, recommendations from the 2024 Lake Whatcom Survey suggest expanding outreach and education programs on:

- Wildfire risk reduction (Climate Change and Forest Management Program Areas)
- Phosphorous regulations in the Lake Whatcom watershed (Stormwater)

Reporting Metrics:

- Number of households (new and existing) sent informational materials per year
- 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

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

2.2.3 Encourage the conversion of non-native landscape and lawn to native forested areas and the preservation of forested areas through incentives and permanent conservation agreements with landowners.

2.2.5 Provide resources and staff support to educate and inform owners of private stormwater facilities about system needs and maintenance.

Land Use

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

Hazardous Materials

5.1.1 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 and those that negatively impact water quality.

6.4.2 Engage recreational user groups (e.g., mountain bikers, horseback riders, boaters, etc.) in practices that protect water quality and those that negatively impact 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.

Utilities & Transportation

8.1.2 Encourage water-use efficiency through outreach and rebate programs.

8.3.2 Inform watershed residents and visitors about alternative transportation opportunities in the watershed.

Climate Action

11.1.2 Develop educational materials for residents based on findings from the Lake Whatcom Climate Vulnerability Assessment.

Forest Management

12.4.1 Engage in partnerships to encourage wildfire risk assessments and mitigation on private and public land.

12.4.2 Engage in partnerships to educate watershed residents about wildfire preparedness.

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.

1.3.1 Dog waste: Programs that support dog waste pick up at home and in parks

2.3.1 Car care: Awareness efforts that use advertising (e.g. print, bus and movie theater ads) and in person outreach (brochures and similar handouts) to prompt vehicle owners to wash their vehicles at a car wash and check for leaks and fix them.

3.3.1 Yard care: Educate and encourage residents to use sustainable yard care practices.

4.3.1 On-site sewage (OSS) system maintenance: Support proper maintenance of OSS systems (septic systems).

5.3.1 School program: Educate Provide educational program to Bellingham School District students about Bellingham's water treatment systems and water conservation principles.

Program Area 10: Administration

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

2025-2029 Estimated Investments: $1,014,360

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 Joint Policy Group to discuss Lake Whatcom policy topics and provide guidance and direction to staff.
10.1.2 Hold annual Joint Councils and Commission meeting to discuss LWMP Work Plan and accomplishments.
10.1.3 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.
10.1.4 Hold meetings of the Interjurisdictional Coordinating Team to oversee work plan implementation efforts and work product development.
10.1.5 Hold Lake Whatcom Management Committee meetings as needed to provide staff with administrative direction.
10.1.6 Hold joint councils and commission work sessions as needed to discuss technical policy questions.
10.1.7 Engage the Water Resources Advisory Board as appropriate.

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.

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 and work with the Lake Whatcom Policy Group to gather feedback on performance goals as needed.
10.3.3 Develop 2030-2034 Lake Whatcom TMDL Implementation Tasks.

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.

Program Area 11: Climate Action

OBJECTIVE: Build resiliency and adapt to negative impacts caused by changes in ecological and environmental parameters associated with a changing climate including increased temperatures and variations in rainfall patterns.

2025-2029 Estimated Investments: $675,000

The Lake Whatcom Management Program (LWMP) incorporates climate action in the protection of Lake Whatcom. Climate action work plan components are divided into two types. **General Lake Whatcom** activities focus on adaptation, and resilience in the Lake Whatcom watershed. **Program area-specific** activities apply to specific climate change-driven activities and are listed both in relevant program areas and in the Climate Action section.

11.1 Climate Action

11.1.1. Conduct a comprehensive Lake Whatcom Climate Vulnerability Assessment to assess the impacts of climate change on Lake Whatcom and the Lake Whatcom Management Program.

11.1.2 Share results from the Lake Whatcom Climate Vulnerability Assessment.

11.1.2 **Land Preservation – Continue to acquire properties for preservation or restoration that contribute to carbon storage.**

11.2.2 Stormwater Management - adapt stormwater design standards and capital facility planning to accommodate changes in rainfall patterns and increased peak flow events

11.2.3 Monitoring and Data - analyze results of the Lake Whatcom Climate Vulnerability Assessment to identify data gaps and questions for further study.

11.2.4 Recreation- Develop plans to adapt to higher use and higher-impact uses of recreational lands during extreme temperature events.

11.2.6 Aquatic Invasive Species - assess potential impacts of infestations from new species that may be facilitated by increasing temperature.

11.2.7 Utilities and Transportation – Encourage use of zero or low carbon transportation options in the watershed, including public transit, bikeways, pedestrian connections, car sharing programs, EVs, electric-powered boats, and similar.

11.2.8 Forest Management - assess wildfire risk and implement wildfire risk reduction programs in applicable areas across the watershed.

Program Area 12: Forest Management

OBJECTIVE: Implement strategies on forest lands that minimize water quality impacts from harvesting and/or recreational activities while simultaneously managing forested lands to minimize wildfire threats.

2025-2029 Estimated Investments: $2,138,900

12.1 Forest Management Plans

Support development and implementation of sound forest management plans.

12.1.1 County and City will partner to create and implement a forest management plan (FMP) for the Lake Whatcom watershed

12.1.2 Implement Forest Management Plans on City and Whatcom County owned lands through timber thinning to improve structural diversity and health of forests.

12.2 Forest Practices Review

Review and comment on DNR and private forestry activities to minimize adverse water quality impacts.

Actively participate in the Inter-Jurisdictional Committee and review and comment on Department of Natural Resources (DNR) forestry activities.

12.2.2 Review and comment on private forest practice applications.

12.2.4 Track permitted forest practice activities (including harvests, replanting, road building and abandonment, and herbicide spraying).

12.3 Forest Roads

Maintain and abandon City and County managed forest roads using recommendations from the upcoming Lake Whatcom Forest Management Plan.

12.4 Wildfire Preparedness and Risk Assessments

Inform watershed residents about resources and programs to address wildfire risk.

12.4.1 Engage in partnerships to encourage wildfire risk assessments on public and private land in the Lake Whatcom Watershed.

12.4.2 Engage in partnerships to educate watershed residents about wildfire preparedness.

Reporting Metrics:

- Acres of timber harvested and replanted on forest lands per year
- Acres of land treated with herbicides on forest lands per year
- Proportion of watershed residents who are knowledgeable about wildfire risk reduction work measured every five years through the Lake Whatcom Watershed Baseline Survey

Resources

Land Preservation

Lake Whatcom Property Acquisition Program
cob.org/lw-property
Whatcom County Parks & Recreation—Reconveyance
whatcomcounty.us/625

Stormwater

Lake Whatcom Management Program Capital Improvement Projects
lakewhatcom.whatcomcounty.org/our-programs/capital-projects
City of Bellingham 2020 Surface and Stormwater Comprehensive Plan
lakewhatcom.whatcomcounty.org/resources
Whatcom County Lake Whatcom Comprehensive Stormwater Plans
whatcomcounty.us/3788
Whatcom County Private Stormwater System Maintenance Program
whatcomcounty.us/2877
Homeowner Incentive Program
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/
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/

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

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
whatcomcounty.us/DocumentCenter/View/39311
Whatcom County Disposal of Toxics
whatcomcounty.us/3298
Whatcom County Pollution Reporting: (360) 778-6230
whatcomcounty.us/2882
City of Bellingham Pollution Reporting/Stormwater Hotline: (360) 778-7979
cob.org/services/environment/stormwater/hotline

Recreation
Whatcom County Parks and Recreation—Reconveyance
whatcomcounty.us/625
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/2020-pro-plan

Aquatic Invasive Species
Lake Whatcom Aquatic Invasive Species Program Annual Reports and Documents
lakewhatcom.whatcomcounty.org/resources
Whatcom Boat Inspections
whatcomboatinspections.com
Aquatic Invasive Species Awareness Course
whatcomboatinspections.com/ais-awareness-course
Inspection Results Story Map
whatcomboatinspections.com/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/water-quality-lw
Lake Whatcom Water and Sewer District Consumer Confidence Reports
lwwsd.org/for-customers/quality-consumer-confidence-reports

City of Bellingham Water Conservation Resources
cob.org/conserve
Whatcom County Septic System Maintenance and Evaluation
whatcomcounty.us/septic
Lake Whatcom Water and Sewer District Water System Comprehensive Plan
lwwsd.org/resources/water-system-comprehensive-plan
Lake Whatcom Water and Sewer District Sewer Comprehensive Plan
lwwsd.org/resources/comprehensive-sewer-plan
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/stewardship-solutions
WSU Whatcom County Extension Sustainable Landscaping
extension.wsu.edu/whatcom/nr/sustainable-landscaping
Homeowner Incentive Program
lakewhatcomHIP.org
Lake Whatcom Watershed Survey Findings
www.lakewhatcom.whatcomcounty.org/resources

Administration
1992 Lake Whatcom Joint Resolution
cob.org/1992-joint-resolution
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

Climate Action
City of Bellingham Climate Protection Action Plan
cob.org/wp-content/uploads/Climate-Protection-Action-Plan-2018-Update.pdf
Whatcom County Climate Action Plan
whatcomcounty.us/DocumentCenter/View/69472

Lake Whatcom Management Program Contacts:

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