



Lake Whatcom Reservoir Management Program 2005-2009 Work Plan Accomplishments

Prepared by the Lake Whatcom Reservoir
Interjurisdictional Coordinating Team

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Introduction

For the past two decades, the water quality in the Lake Whatcom Reservoir has been deteriorating as a result of phosphorus entering the lake which has led to widespread algal blooms and dissolved oxygen deficits. In 1998, Lake Whatcom failed to meet state dissolved oxygen standards and was placed on Washington's list of polluted waters. In response to this listing, a Total Maximum Daily Load (TMDL) study was completed by the Washington Department of Ecology (DOE) to determine acceptable loading levels to reduce water quality degradation in Lake Whatcom. Information from this TMDL study, in conjunction with other reports, is now being used by Lake Whatcom Management Program staff as we work to improve the water quality of the lake.

The Lake Whatcom Cooperative Management Program was established by an Interlocal Agreement in 1998 between the City of Bellingham, Whatcom County and the Lake Whatcom Water and Sewer District (formerly Water District 10). The goal of the program is to jointly manage and implement programs affecting the Lake Whatcom watershed.

Since 2003, staff from the three jurisdictions have worked to improve the functional components of the management program. The Interjurisdictional Coordinating Team (ICT) was created in 2000 to help coordinate activities and programs between the three jurisdictions. The ICT, composed of staff from each of the three jurisdictions, meets regularly to coordinate implementation of the Lake Whatcom Reservoir Management Program.

In 2005, the City and County Councils and the Lake Whatcom Water and Sewer District adopted the *Lake Whatcom Reservoir Management Program 2005-2009 Work Plan*. The five-year work plan outlined tasks under twelve Program Areas. The goals of each Program Area are summarized on page 5. Priority water quality concerns for this five-year work plan included: phosphorus, fecal coliform bacteria, and other pollutants (i.e. pesticides, metals, petrochemicals). This work plan placed a greater emphasis on phosphorus and fecal coliform loading reductions than previous work plans.

Over the past five years, this work plan has guided the management activities being conducted in the Lake Whatcom watershed. The following document provides a summary of accomplishments from 2005 through 2009 for each task. This accomplishments report is structured differently from previous work plans to provide a clearer, more detailed portrayal of the work that was accomplished under this five-year plan. The format of this report is a modified version of the format used in the Lake Whatcom Reservoir Technical Review Task Force report, *Recommended Management Actions for the Protection and Restoration of the Lake Whatcom Reservoir*, that was presented to the Mayor and City Council of Bellingham in May, 2009.

This accomplishments report is organized by Program Area and Task. Each Program Area's tasks have been color-coded for easy identification throughout the report. A header table at the top of each task sheet provides a quick overview of the task and includes:

- the time period in which the task was implemented,
- the party or parties responsible for implementing the task,
- an estimate of the costs associated with the task,
- the status of the task, and
- the phosphorus reduction pathway.

A detailed introduction to the new format and the header table can be found on pages 6 and 7.

The ICT is using a similar format for the *Lake Whatcom Reservoir Management Program 2010-2014 Work Plan* to be presented to the Joint Councils for review in early 2010. This next five-year work plan will be used as part of the initial phase of the TMDL response strategy by the City of Bellingham and Whatcom County to be delivered to the Department of Ecology in 2010.

Program Area Goals

- 1. Land Preservation-** *To pursue public ownership and protection of the watershed whenever possible through public/private partnerships, tax exemptions, transfer of development rights, land trusts, and other means.*
- 2. Stormwater Management –** *To prevent water quality and quantity impacts due to stormwater runoff by implementation of best management standards and practices, pollutant source control, and construction, maintenance and retrofit of stormwater facilities.*
- 3. Urbanization and Land Development –** *To prevent water quality degradation associated with urban development through zoning changes, development standards and density limits.*
- 4. Community Outreach –** *To increase lake stewardship through the provision of educational programs and materials to watershed residents, the general public and decision makers on topics related to water quality, source control, and land use and development regulations.*
- 5. Data Management and Information –** *To maintain and enhance databases sufficient for detection of water quality and quantity trends, assessment of problems, evaluation and selection of management actions, and monitoring of action effectiveness.*
- 6. Spill Response and Hazardous Materials –** *To prevent water quality degradation due to hazardous material spills through spill prevention and response programs, and continual improvement of communication network to handle spill response.*
- 7. Forestry/Fish/Wildlife –** *To develop and maintain a comprehensive watershed forest management plan that minimizes impacts to water quality, and promotes actions and programs that protect and enhance fish and wildlife habitat.*
- 8. Transportation –** *To design and develop transportation systems that: include alternatives to automobiles, locate “through” routes away from the lakeshore, ensure treatment of runoff before entering the lake and otherwise protects water quality.*
- 9. Recreation –** *To promote recreational opportunities that do not degrade water quality, and improve on ways to reduce impacts of existing activities.*
- 10. Utilities and Waste Management –** *To promote conservation of water resources and provision of city sewer to areas with on-site treatment.*
- 11. Administration –** *To administer and coordinate ICT activities to support Management Plan implementation.*
- 12. Enforcement-** *To improve City and County enforcement of regulations aimed at protecting lake water quality.*

Reading the Header Table

Quick Reference: Program Area and Task Number

Program Area: 1. Land Preservation
Task: 1.1 Develop and distribute education materials

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|----------|--------|-------------|
| 2005-2009 | City | \$20,000 | Done | Indirect |
| 2005-Ongoing | County | Staff | Active | Direct |
| | SVCA | | Hold | |
| | District | | | |
| | WSU Extension | | | |

Quick Reference: Key information for each task is found in the **Header Table** (left) and can also be found in the **Accomplishments Summary Table on pages 8-11**

Header Table Descriptions:

Period: This column refers to the time period in which the task was/is being implemented. For example, the period **2005-2009** indicates that the task was first implemented in 2005 and was completed, or activity stopped, in 2009. The period **2005-Ongoing** indicates that this task was first implemented in 2005 and is ongoing.

Responsible Party: This column refers to the party or parties responsible for implementing the task.

Costs: This column gives an estimated cost for the implementation of the task over the 5-year timeframe. If the monetary value is known, it is given in **dollars**. If there is no hard cost associated with the task, the cost is entered as **Staff** in the Costs column.

Status: This column refers to the status of the task which is indicated by the following:

- **Done** indicates the task has been completed or is no longer being implemented,
- **Active** indicates the task is still actively being implemented, and
- **Hold** indicates the task is on hold until further notice due to resource constraints or informational delays.

P Reduction: This column is used to indicate 1) whether this task results in a reduction in phosphorus loading, and 2) if there is a reduction, is it a) **Indirect**, meaning that the phosphorus reduction is occurring as a result of the impact the successful implementation of this task had on other actions, e.g. education program influence on stewardship activities, or b) **Direct**, meaning that this task is directly resulting in a reduction in phosphorus loading, e.g. retrofitting a stormwater facility.

Quick Reference: Detailed descriptions of all **Header Table** entries can be found here

Reading the Task Sheet

Program Area: 1. Land Preservation
Task: 1.4 Manage Acquisition Program properties

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|----------------|--------|-------------|
| 2008-Ongoing | City/County Parks | >\$30,000/year | Active | Direct |

Here is an example of the **Header Table** from the previous page

Task Objective: Protect the watershed by managing Acquisition Program properties

A more detailed description of the **Task Objective** can be found in this section.

Accomplishments:

2009

- Management Plans completed for all Acquisition Program properties. Projects include...
- All acquisition properties inspected including projects on 3 Creeks, Olson, Geneva Park, Lookout Mountain Preserves

A list of **Accomplishments** from each year can be found in this section.

2008

- Implemented priority management recommendations and created summary of tasks on properties

Boxes in this section are checked to indicate specific benefits the lake receives as a result of this task. If **Other** is checked, a description will follow below.

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe: Lake protection as result of increased land preservation in watershed

Performance Measures: Acres restored, encroachment responses, special projects.

Performance Measures indicate how progress toward completing the task objective is being measured.

Outcome: All acquisition properties are managed to eliminate impacts to lake

The **Outcome** section describes what happened as a result of this task being implemented.

Resources/Funding: City – 0.1 FTE contract through Acquisition Program - \$30,000
 County Parks – costs undetermined (2007-2008)

Key Next Steps: Continue property management activities

The **Key Next Steps** section lists any updates to the task or recommended next steps for completing the task.

The **Resources/Funding** section gives an estimate of the resources and funding used to implement the task given in Full Time Equivalents (FTEs) and/or dollars depending on the information available. N/A is used to indicate when no resource/funding information is available.

Accomplishments Summary Table

| 1. Land Preservation | Period | Responsible Party | Costs | Status | P Reduction |
|--|--------------|-------------------|--------------------------|--------|-------------|
| 1.1 Develop and distribute educational materials | 2005-2008 | City | \$20,000 | Done | Indirect |
| 1.2 Enhance Whatcom County TDR Program | 2005-2009 | City/County | \$125,000 | Hold | Indirect |
| 1.3 Acquire easements or titles to watershed properties | 2008-Ongoing | City/County | \$2.1 million | Active | Indirect |
| 1.4 Manage Acquisition Program properties | 2008-Ongoing | City/County | >\$30,000/yr | Active | Direct |
| 1.5 Pursue preservation options with DNR | 2008-Ongoing | County | \$291,000* | Active | Indirect |
| 1.6 Create Conservation Easements | 2008-Ongoing | City | \$39,150 | Active | Indirect |
| 1.7 Increase effectiveness of Acquisition Program | 2008-Ongoing | City | Staff | Done | Indirect |
| 2. Stormwater Management | Period | Responsible Party | Costs | Status | P Reduction |
| 2.1 Use models to prioritize stormwater projects | 2005-Ongoing | City/County | \$175,000 TMDL Review | Active | Indirect |
| 2.2 Improve phosphorus removal in stormwater facilities | 2005-Ongoing | City/County | \$3.39 million | Active | Direct |
| 2.3 Implement comprehensive stormwater plans for phosphorus control | 2005-Ongoing | City/County | \$543,000 | Active | Direct |
| 2.4 Identify sites for stormwater retrofits | 2008-Ongoing | City/County | Staff | Active | Indirect |
| 2.5 Conduct daily stormwater control inspections of development projects | 2005-Ongoing | City/County/SVCA | Staff | Active | Direct |
| 2.6 Coordinate and implement NPDES Phase II stormwater requirements | 2005-Ongoing | City/County | Staff | Active | Direct |
| 2.7 Develop strategy for pollutant source reduction | 2008-Ongoing | City/County | Staff | Done | Direct |
| 2.8 Explore options for purchasing properties for stormwater retrofits | 2007-Ongoing | City/County | Staff | Active | N/A |
| 2.9 Coordinate stormwater management with transportation program area | 2007-Ongoing | City/County | Staff | Hold | N/A |

| 3. Urbanization and Land Development | Period | Responsible Party | Costs | Status | P Reduction |
|--|---------------|--------------------------------|---------------------------|---------------|--------------------|
| 3.1 Develop and implement a tracking system | 2005-Ongoing | County | Staff | Active | N/A |
| 3.2 Enhance established joint development review process | 2005-Ongoing | City/County | Staff | Active | Indirect |
| 3.3 Evaluate options for consistent development regulations across jurisdictions | 2006-2009 | ICT | Staff | Done | Indirect |
| 3.4 Explore enforcement and education options to improve compliance | 2005-2008 | ICT-County/SVCA | Staff | Done | Indirect |
| 4. Community Outreach | Period | Responsible Party | Costs | Status | P Reduction |
| 4.1 Improve Lake Whatcom Management Program website | 2008-Ongoing | City/County Lead | Staff | Active | Indirect |
| 4.2 Develop an integrated community outreach strategy | 2005-Ongoing | City/County/SVCA/ Extension | Staff | Active | Indirect |
| 4.3 Expand efforts to educate and activate watershed residents and visitors | 2005-Ongoing | City/County/SVCA | Staff | Active | Indirect |
| 4.4 Create stewardship incentive programs | 2008-Ongoing | ICT | Staff | Active | Indirect |
| 4.5 Expand Lake Friendly Gardening Program | 2008-Ongoing | City/County/Extension | Staff | Active | Direct |
| 4.6 Provide watershed education in schools | 2008-Ongoing | City | Staff | Active | Indirect |
| 5. Data Management and Information | Period | Responsible Party | Costs | Status | P Reduction |
| 5.1 Review all monitoring studies and reports | 2005-Ongoing | Joint/District | \$50,000 | Active | Indirect |
| 5.2 Provide data for tributary pollutant loading model updates | 2005-Ongoing | City/County/Consultants | \$342,000 | Active | Indirect |
| 5.3 Maintain and update data records | 2005-Ongoing | Joint/City | \$1,200 | Active | N/A |
| 6. Spill Response and Hazardous Materials | Period | Responsible Party | Costs | Status | P Reduction |
| 6.1 Update spill response capability | 2005-2008 | Joint | \$10,000 | Done | N/A |
| 7. Forestry/Fish/Wildlife | Period | Responsible Party | Costs | Status | P Reduction |
| 7.1 Seek updates from the IJC review of DNR activities | 2005-Ongoing | City/County | Staff - \$6,000 per yr | Active | Indirect |

| 8. Transportation | Period | Responsible Party | Costs | Status | P Reduction |
|--|---------------|--------------------------|--------------|---------------|---------------------|
| 8.1 Improve transportation planning and coordination | 2005-Ongoing | City/County | Staff | Active | Indirect |
| 8.2 Reduce vehicle mile trips (VMT) in watershed | 2006-Ongoing | City/County | Staff | Active | N/A |
| 9. Recreation | Period | Responsible Party | Costs | Status | P Reduction |
| 9.1 Reduce park impacts to watershed water quality | 2005-2009 | ICT/Park Staff | Staff | Active | Direct/ Indirect |
| 10. Utilities and Waste Management | Period | Responsible Party | Costs | Status | P Reduction |
| 10.1 Continue OSS contract with County Health Department | 2005-Ongoing | City | \$90,000 | Active | Direct |
| 10.2 Improve oversight of the provision of water and sewer services | 2008-2009 | Joint | Staff | Done | Indirect |
| 10.3 Improve monitoring and maintenance of utilities | 2005-Ongoing | District/City | Staff | Active | Direct |
| 10.4 Reduce water supply impact from new residential construction | 2008-2009 | Joint | Staff | Done | Direct |
| 11. Administration | Period | Responsible Party | Costs | Status | P Reduction |
| 11.1 Maintain coordination between the ICT | 2005-Ongoing | ICT | Staff | Active | N/A |
| 11.2 Facilitate and coordinate appropriate staff to accomplish tasks | 2005-Ongoing | ICT | Staff | Active | N/A |
| 11.3 Establish regular communication and coordination between committees | 2005-Ongoing | ICT | Staff | Active | N/A |
| 11.4 Organize and facilitate Joint Councils/Commissioners meetings | 2005-Ongoing | ICT | Staff | Active | N/A |
| 11.5 Integrate Lake Whatcom Program Management Program goals | 2005-Ongoing | ICT | Staff | Active | N/A |
| 11.6 Coordinate and maintain contact with agencies | 2005-Ongoing | ICT | Staff | Active | N/A |

| 12. Enforcement | Period | Responsible Party | Costs | Status | P Reduction |
|---|--------------|-------------------------------|-------|--------|-------------|
| 12.1 Improve enforcement capability | 2008-Ongoing | ICT-County | Staff | Active | Direct |
| 12.2 Improve enforcement of regulations | 2008-Ongoing | County/Health Department/SVCA | Staff | Active | Indirect |

Program Area: 1. Land Preservation
Task: 1.3 Acquire easements or titles to watershed properties

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|---------------|--------|-------------|
| 2008-Ongoing | City/County | \$2.1 million | Active | Indirect |

Task Objective: Protect the watershed through the acquisition of easements or titles to watershed properties

Accomplishments:

2009

- City purchased Nielsen property through the Acquisition Program: 24 acres/12 units
- Changes were made to scope and membership of Watershed Advisory Board

2008

- City reduced the potential number of development units in the watershed by purchasing 3 watershed properties through the Acquisition Program: Shipley (2.5 acres), Hawley (10 acres), and Three River (32 acres).

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: Reduction of development potential (# of units), Acres purchased

Outcome: 44.5 acres of protected watershed property

Resources/Funding: City – 0.2 FTE through City acquisition program (\$2.1 million)
 County – budgeted (2007-2008)
 City - Nielson Property - \$1,690,000 (2009)

Key Next Steps:

Program Area: 1. Land Preservation
Task: 1.4 Manage Acquisition Program properties

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|----------------|--------|-------------|
| 2008-Ongoing | City/County Parks | >\$30,000/year | Active | Direct |

| | | | | |
|--|--|---|--|---|
| Task Objective: Protect the watershed by managing Acquisition Program properties | | | | |
| Accomplishments: | | | | |
| 2009 | | | | |
| <ul style="list-style-type: none"> - Management Plans completed for all Acquisition Program properties. Projects included invasives control, planting, trail construction, beaver deceiver, and encroachment response. - All acquisition properties were inspected including projects on 3 Creeks, Olson, Geneva Pond and Lookout Mountain Preserves | | | | |
| 2008 | | | | |
| <ul style="list-style-type: none"> - Implemented priority management recommendations and created summary of tasks completed on properties | | | | |
| Lake Benefits: | Phosphorus Reduction <input checked="" type="checkbox"/> | Fecal Coliform Reduction <input type="checkbox"/> | Sediment Reduction <input checked="" type="checkbox"/> | Other <input checked="" type="checkbox"/> |
| If other, please describe: Lake protection as result of increased land preservation in watershed | | | | |
| Performance Measures: Acres restored, encroachment responses, special projects. | | | | |
| Outcome: All acquisition properties are managed to eliminate impacts to lake | | | | |
| Resources/Funding: City – 0.1 FTE contract through Acquisition Program - ~ \$30,000 County Parks – costs undetermined (2007-2008) | | | | |
| Key Next Steps: Continue property management activities | | | | |

Program Area: 1. Land Preservation
Task: 1.5 Pursue preservation options with DNR

| Period | Responsible Party | Costs | Status | P Reduction |
|-----------|-------------------|------------|--------|-------------|
| 2008-2009 | County | \$291,000* | Active | Indirect |

Task Objective: Protect the watershed by re-conveying DNR land for Park purposes

Accomplishments:

2009

- County Council approved an interagency agreement with DNR to authorize reimbursement of appraisals and all other work necessary to prepare intergrant transfers of property within the watershed in anticipation of a County request for reconveyance of lands for park purposes

2008

- Initiated process to reconvey ~ 8,000 acres from DNR to Whatcom County for Park purposes
- Negotiations between City, County, and DNR resulted in increased coordination and discussion of land preservation options and priorities
- Memorandum of Agreement passed by County Council

Lake Benefits:

Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe: Assumed reductions from decreased forest practices

Performance Measures: Steps taken to complete reconveyance

Outcome: Assumed local management of watershed forest properties will reduce sediment and phosphorus loads

Resources/Funding: County – costs not to exceed \$291,000 (*appropriated)

Key Next Steps: Completion of inter-grant transfers by DNR; preparation of reconveyance request by Whatcom County

**Program Area: 1. Land Preservation
Task: 1.6 Create Conservation Easements**

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|----------|--------|-------------|
| 2008-Ongoing | City | \$39,150 | Active | Indirect |

| | | | | |
|--|--|---|---|--------------------------------|
| Task Objective: Protect the watershed by creating Conservation Easements (CEs) for Acquisition Program properties | | | | |
| Accomplishments: | | | | |
| - Conservation Easements (CEs) negotiated with the Whatcom Land Trust | | | | |
| 2009 | | | | |
| - Olson Creek Preserve | | | | |
| - Three Creeks Preserve II | | | | |
| 2008 | | | | |
| - Agate Bay Preserve | | | | |
| 2007 | | | | |
| - Three Creeks Preserve | | | | |
| Lake Benefits: | Phosphorus Reduction <input checked="" type="checkbox"/> | Fecal Coliform Reduction <input type="checkbox"/> | Sediment Reduction <input type="checkbox"/> | Other <input type="checkbox"/> |
| If other, please describe: | | | | |
| Performance Measures: Acres in Preserves | | | | |
| Outcome: Protection and legal defense of conservation objectives in perpetuity | | | | |
| Resources/Funding: City – 0.02 FTE Funded City ER. \$39,150 for Land Trust oversight and legal fund. | | | | |
| Key Next Steps: Continue to develop Conservation Easements for acquisition properties | | | | |

Program Area: 1. Land Preservation
Task: 1.7 Increase effectiveness of Acquisition Program

| Period | Responsible Party | Costs | Status | P Reduction |
|--------|-------------------|-------|--------|-------------|
| 2008 | City | Staff | Done | Indirect |

| | | | | |
|--|--|---|---|--------------------------------|
| Task Objective: Protect the watershed by increasing the effectiveness of the Acquisition Program | | | | |
| Accomplishments: | | | | |
| 2009 | | | | |
| - Task has been retired as the acquisition strategy now includes use of the evaluation criteria and attention to acquisition opportunities in Basin 2 with a focus on expansion of the Preserves | | | | |
| 2008 | | | | |
| - Focused acquisition activities in Basin 2 to protect the land that drains into the lake basins where intake structures are located | | | | |
| Lake Benefits: | Phosphorus Reduction <input checked="" type="checkbox"/> | Fecal Coliform Reduction <input type="checkbox"/> | Sediment Reduction <input type="checkbox"/> | Other <input type="checkbox"/> |
| If other, please describe: | | | | |
| Performance Measures: Evaluation criteria used to assess progress | | | | |
| Outcome: Increased attention to effectiveness strategy | | | | |
| Resources/Funding: Part of acquisition program | | | | |
| Key Next Steps: Continue to evaluate strategy | | | | |

Program Area: 2. Stormwater Management
Task: 2.1 Use models to prioritize stormwater projects

| Period | Responsible Party | Costs | Status | P Reduction |
|---------------|-------------------|-----------|--------|-------------|
| 2005- Ongoing | City/County | \$175,000 | Active | Indirect |

Task Objective: Prevent water quality and quantity impacts due to stormwater runoff by using pollutant loading models to identify priority projects in the watershed

Accomplishments:

2009

- Department of Ecology (DOE) released TMDL study
- City and County contracted with Brown and Caldwell to prepare technical review of DOE models
- Draft reports submitted and currently under review

2008

- Established priority stormwater project areas within each jurisdiction
- Summarized and ranked priority drainages in the watershed
- County completed Comprehensive Lake Whatcom Stormwater Plan

2007

- Completed City Stormwater Comp Plan including HSPF model of City and Watershed
- Results from studies and models on Lake Whatcom done by Portland State University and Utah State University in 2006 used to prioritize watershed protection actions

2005-2006

- Portland State University and Utah State University conducted studies on Lake Whatcom
- County completed a hydrologic model of the Geneva sub-area drainage

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: N/A

Outcome: Provide better understanding of phosphorus loading and hydrology of the watershed

Resources/Funding: City – 0.2 FTE
 County – 0.2 FTE, unfunded (*Brown and Caldwell through 2009 City \$66k County \$109k)

Key Next Steps: Incorporate data into new models as they become available, i.e. from TMDL and USU studies, City Comp Plan model.

Program Area: 2. Stormwater Management
Task: 2.2 Improve phosphorus removal in stormwater facilities

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|----------------|--------|-------------|
| 2005-Ongoing | City/County | \$3.39 million | Active | Direct |

Task Objective: Prevent water quality and quantity impacts due to stormwater runoff by improving phosphorus removal in stormwater facilities

Accomplishments:

2009

City

- Began trial of new soluble phosphorus media in existing media filter system
- Constructed phosphorus controls for North Shore Drive (Alabama to Britton); constructed Northridge Sand Filter treating Brentwood subdivisions and a portion of Tweed Twenty

County

- Completed preliminary design, right-of-way acquisition, and hydrologic analysis for bio-filtration swale at the intersection of Lahti Drive and Britton Road
- Developed plans, specifications, and engineering estimate for stabilization, velocity control, and infiltration to improve stormwater quality from Brownsville Drive to E. 16th Place
- Began a comprehensive monitoring study of the Cable Street stormwater treatment vault. The study is comparing phosphorus removal rates of two different type of filter media in the cartridges.
- Utilized Conservation Crew to perform riparian repair on Silver Beach Creek below Hillsdale Dr.

2008

- City analyzed new soluble reactive phosphorus filter media (50-75% reduction in SRP)

2007

- City constructed water quality facilities at Hayward, E. North, E. Oregon and Pullman. Used alumina filtration and Filterra system.
- County re-constructed Cable St. and redirected stormwater flows to bio-infiltration swales, and stormwater treatment vaults and installed treatment vault at foot of Cable St.

2006

- City constructed water quality facilities at E. Academy and E. Silverbeach; analyzed alumina as a filter media; reviewed and modified maintenance of media systems to enhance phosphorus removal.
- County constructed bio-infiltration swales on Austin St., Morgan St., Lakewood Ln., and Wall St. and stormwater treatment vaults on Geneva St., Austin St., and Fir Tree Way.

2005

- City constructed facilities at Poplar Dr. and E. Northshore; reconstructed Park Place as a sand filter

Lake Benefits:

Phosphorus
Reduction



Fecal Coliform
Reduction



Sediment
Reduction



Other



If other, please describe: Reduction of vehicle related pollution i.e. petroleum, heavy metals, asbestos, and other emissions-related contaminants.

Performance Measures: Will be determined with further monitoring

Outcome: Removal of phosphorus and sediments in stormwater

Resources/Funding: City – expenditures from 2005 to 2009 – \$1.53 million
 County – expenditures from 2005 to 2009 \$1.86 million

Key Next Steps: Continue to retrofit facilities with new technology as becomes available

Program Area: 2. Stormwater Management

Task: 2.3 Implement comprehensive stormwater plans for phosphorus control

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-----------|--------|-------------|
| 2005-Ongoing | City/County | \$543,000 | Active | Direct |

Task Objective: Prevent water quality and quantity impacts due to stormwater runoff by implementing comprehensive stormwater plans for phosphorus control

Accomplishments:

2009

- Implementation of Stormwater Plans is ongoing
- City passed revised Lake Whatcom code to align with TMDL requirements

2008

- County adopted Lake Whatcom Stormwater Plan
- Coordinated stormwater control projects
- Created recommendations for developing funding for future efforts
- County completed implementation of the Watershed Friendly Gardening Program

2007

- City completed Stormwater Comp Plan and Lake Whatcom Phosphorus Reduction Plan
- County began process to create Lake Whatcom Comp Stormwater Plan
- County adopted regulations restricting the use of phosphorus containing fertilizers in watershed

2006

- City enacted new regulations from DOE 2005 Manual to comply with NPDES Phase II

2005

- City began process for Stormwater Comprehensive Plan
- County received \$130k grant for Watershed Friendly Gardening Program

Lake Benefits:

Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures:

Outcome: Provides framework for projects to implement

Resources/Funding: Total cost of Comp Plan and Phosphorus Plan 2005- 2007 \$250,000
 City – Future funding for Lake Whatcom from SSWU to be determined year by year
 County – Total County expenditure for Watershed Friendly Garden Program and Lake Whatcom Comp Stormwater Plan was \$293,000.

Key Next Steps: Continue to update plans as needed

Program Area: 2. Stormwater Management
Task: 2.4 Identify sites for stormwater retrofits

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2008-Ongoing | City/County | Staff | Active | Indirect |

Task Objective: Prevent water quality and quantity impacts due to stormwater runoff by identifying and prioritizing sites for potential stormwater retrofits within high priority areas

Accomplishments:

2009

- 90% of City stormwater outfalls are retrofitted
- City discussed plans to modify existing facilities to improve performance
- County conducted field review of County’s portion of Silver Beach Creek to determine locations for design and construction of stormwater retrofit projects

2008

- City and County Stormwater Plans adopted in early 2008
- Developed list of options, costs, and timelines for priority retrofit projects in watershed (including private residential projects)
- Created summary of potential locations and options for stormwater retrofit projects
- City and County Stormwater Plans identify Silver Beach Creek Watershed as a high priority
- Silver Beach Creek is selected as target area for demonstration projects

2007

- County established list of priority areas for retrofits

2005

- County selected Geneva sub-area as the highest priority area for stormwater retrofits

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: N/A

Outcome: Provides land for stormwater retrofits to occur

Resources/Funding: City - \$100,000/yr, funded
 County – Funding TBD

Key Next Steps: Continue to assess areas in watershed for retrofits

Program Area: 2. Stormwater Management

Task: 2.5 Conduct daily stormwater inspections of development projects

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2005-Ongoing | City/County/SVCA | Staff | Active | Direct |

Task Objective: Prevent water quality and quantity impacts due to stormwater runoff by conducting daily stormwater inspections of development projects in the watershed during construction season

Accomplishments:

2009

- Watershed staff conduct daily inspections during the construction season and daily patrols for illegal out-of-season work

2005 -2008

- City hired extra labor for Lake Whatcom construction season
- Projects in the City portion of the watershed were reported and inspected on a daily basis
- Projects in the County portion of the watershed were reported and inspected on a daily basis
- In 2005, County hired 3rd Watershed Planner dedicated to daily inspections of stormwater BMPs, erosion and sediment control measures, education and outreach, and watershed regulation compliance.

Lake Benefits:

- Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures:

Outcome: Observed a decrease in the amount of dirt leaving building sites

Resources/Funding: City – 0.5 FTE, funded
County – PDS – 1 FTE
SVCA – 0.2 FTE

Key Next Steps: Tighter controls/enforcement is needed to prevent problems. Inspections need to be ongoing.

Program Area: 2. Stormwater Management

Task: 2.6 Coordinate and implement NPDES Phase II stormwater requirements

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2005-Ongoing | City/County | Staff | Active | Direct |

Task Objective: Prevent water quality and quantity impacts due to stormwater runoff by coordinating and implementing NPDES Phase II stormwater requirements

Accomplishments:

2009

- City completed new illicit discharge review of city watershed area and sampled all flowing storm drains for fecal coliform and phosphorus during low flow period
- County adopted NPDES Phase II Ordinances and established Illicit Discharge Reporting Hotline
- County utilizing grant funding completed comprehensive NPDES Phase II facility map

2008

- Coordinated NPDES required programs: Illicit Discharge Detection, Construction Site Controls, Permanent Water Quality Facilities, Public Outreach, and Public Education
- Increased understanding between City and County on NPDES requirements

2007

- (Formerly Task 2.4) City updated stormwater code with Ordinance No. 2006-05-047 to comply with federal and state regulatory requirements. Ordinance promotes use of Low Impact Development (LID) for stormwater management.
- County hired CH2M Hill to build on existing work and develop comprehensive plan for the Lake Whatcom watershed. Plan identified gaps and needs associated with meeting Phase II requirements.

2005

- City completed illicit discharge review of city watershed area and sampled all flowing storm drains for fecal coliform and phosphorus during low flow period

Lake Benefits:

Phosphorus Reduction

Fecal Coliform Reduction

Sediment Reduction

Other

If other, please describe:

Performance Measures: Remaining in compliance with NPDES Phase II requirements

Outcome: Reduce effects of stormwater pollution in urbanized areas

Resources/Funding:

City – 2.0 FTE, funded, watershed only

County – 0.5 FTE, funded; 1.5 FTE, unfunded and budgeted for 2008; 2.0 FTE M&O and PDS, unfunded and not budgeted

Key Next Steps: Continue to move forward and expand NPDES Phase II Stormwater Management Programs (SWMP) as required.

Program Area: 2. Stormwater Management
Task: 2.7 Develop strategy for pollutant source reduction

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2008-Ongoing | City/County | Staff | Done | Direct |

Task Objective: Prevent water quality and quantity impacts due to stormwater runoff by developing a strategy for pollutant source reduction that considers community outreach, regulations, and enforcement options

Accomplishments:

2009

- Created Education Enforcement Teams comprised of all agencies with jurisdiction in the watershed
- Lake Whatcom Rain Barrel Residential Retrofit Project started to lower residential runoff and provide information to citizens on lake-friendly stormwater practices
- County trained County Planning, Maintenance and Operations, and Health staff in Illicit Discharge and Detection regulations and reporting responsibilities
- County Public Works, Planning and Health staff members participated in frequent team meetings and continued and initiated new outreach programs in stormwater source control

2008

- Coordinated and convened appropriate departments to develop recommendations to implement the education, regulation, and enforcement options for pollutant source reduction in the watershed
- Created a description of the pollution source reduction strategy
- Summarized activities to be completed in the pollution source reduction strategy
- Incorporated reduction strategies from City and County Stormwater Comprehensive Plans

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: N/A

Outcome: Proposed to improve knowledge base of Lake Whatcom residents

Resources/Funding: City – 1.0 FTE, funded; County – 0.2 FTE, funded

Key Next Steps: Continue improvement to education programs. Examine web-based education tools.

Program Area: 2. Stormwater Management

Task: 2.8 Explore options for purchasing properties for stormwater retrofits

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2007-Ongoing | City/County | Staff | Active | N/A |

Task Objective: Prevent water quality and quantity impacts due to stormwater runoff by exploring options for purchasing properties for stormwater retrofits where feasible and examining existing properties for stormwater retrofit opportunities

Accomplishments:

2009

- City stormwater staff and Acquisition Coordinator reviewed acquisition sites for City stormwater facility use
- Included County staff in above review process and created map with all existing ROWs and public properties with joint meeting to discuss project potential

2008

- Coordinated property acquisition programs to target properties that take units out of potential development and allow space for stormwater retrofits

2007

- (Formerly Task 2.6) City purchased a ¾ acre site for a treatment facility adjacent to Barkley Boulevard. Site scheduled to treat a portion of Brentwood and Tweed Twenty subdivisions.

2006

- County created a real estate acquisition position to assist with property acquisition

Lake Benefits: Phosphorus Fecal Coliform Sediment Other
 Reduction Reduction Reduction

If other, please describe:

Performance Measures: N/A

Outcome: Acquisition of required properties

Resources/Funding: City – 0.02 FTE, funded through Acquisition Program; County – 0.1 FTE, unfunded

Key Next Steps: Continue to identify properties that could be retrofitted in the future

Program Area: 2. Stormwater Management

Task: 2.9 Coordinate stormwater management with transportation program area

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2007-Ongoing | City/County | Staff | Hold | N/A |

Task Objective: Prevent water quality and quantity impacts due to stormwater runoff by coordinating stormwater management with transportation planning program areas

Accomplishments:

2009

- Convened Stormwater and Transportation Team in 2009

2008

- Evaluated stormwater management activities and transportation planning program areas to locate projects where coordination would be beneficial
- Summarized actions taken to coordinate stormwater management with transportation planning

2007

- (Formerly Task 2.8) County contracted with RH2 Engineering to evaluate traffic flow patterns along Lake Whatcom Boulevard and Lake Louise Road to determine traffic flow with least impact to lake water quality
- City continued to use Lake Whatcom road development standards for new roads

Lake Benefits:

Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures:

Outcome:

Resources/Funding: City – 0.1 FTE, funded; County - unfunded position vacant due to hiring freeze

Key Next Steps:

Program Area: 3. Urbanization and Land Development

Task: 3.1 Develop and implement a tracking system

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2005-Ongoing | County | Staff | Active | N/A |

Task Objective: Prevent water quality degradation associated with development by developing and implementing a system for tracking building and development activities in the watershed

Accomplishments:

2009

- City utilized Tidemark database to track all active and past permits in the watershed
- City created reports on permit activity (See Appendix)

2008

- Coordinated City and County staff to identify development tracking capabilities
- Began creating an up-to-date database for Lake Whatcom watershed development to be utilized by City, County, and District for accurate tracking and analysis of existing and potential development in the watershed
- Convened Parcel Maintenance Task Force

2007

- Both City and County began discussing ways to enhance access to development data to improve tracking capabilities

2005

- City and County used Tidemark software to track Lake Whatcom watershed permits

Lake Benefits: Phosphorus Fecal Coliform Sediment Other
 Reduction Reduction Reduction

If other, please describe: Assists with implementation of work plan

Performance Measures: Production of an accessible and highly detailed tracking report

Outcome: Created a system to track development and projects in the watershed

Resources/Funding: N/A

Key Next Steps: Maintain tracking system and customize reports

Program Area: 3. Urbanization and Land Development
Task: 3.2 Enhance the established joint development review process

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2005-Ongoing | City/County | Staff | Active | Indirect |

Task Objective: Prevent water quality degradation associated with development by enhancing the established joint development review process in the UGA portion of the watershed, where applicable, to achieve water quality protection goals

Accomplishments:

2009

- City and County established a protocol for joint development review using SEPA as a threshold for shared review in the watershed
- Joint review resulted in an opportunity to develop SEPA conditions that further reduce phosphorus loading

2008

- Identified issues from review process in administering watershed regulations
- Analyzed development projects and watershed development issues for Management Committee consideration
- City of Bellingham requested and is now included in the distribution of SEPA notifications to comment on all projects within the Lake Whatcom watershed that trigger SEPA

2007

- City and County designated a staff member tasked with attending joint review meetings
- Opportunities to improve communication and coordination between County and City staff were sought

2005

- City and County began performing joint reviews of watershed developments in the Urban Grown Area (UGA)

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: All SEPA determinations reviewed by the respective jurisdictions

Outcome: Improved method of sharing interjurisdictional information and improved outcomes for development proposals

Resources/Funding: Current staff

Key Next Steps: Formalize the protocol in the Interlocal Agreement and the Lake Whatcom Management Program and include defining roles and responsibilities for each jurisdiction

Program Area: 3. Urbanization and Land Development

Task: 3.3 Evaluate options for consistent development regulations across jurisdictions

| Period | Responsible Party | Costs | Status | P Reduction |
|-----------|-------------------|-------|--------|-------------|
| 2006-2009 | ICT | Staff | Done | Indirect |

Task Objective: Prevent water quality degradation associated with development by evaluating options for consistent development regulations among the City, County, and District

Accomplishments:

2009

- City and County adopted the same seasonal restriction period: October 1st through May 31st

City

- Amended the Lake Whatcom Reservoir Regulatory Chapter to require forested or fully engineered methods for new development and redevelopment over 300 sq. ft.
- Amended BMC 15.42, Stormwater Management, regulating impervious and partially pervious surfaces
- Worked with Sudden Valley Community Association in development of amended code

County

- Amended WCC 20.80.735, Water Resource Special Management Areas modifying the dates of the seasonal clearing restrictions and imposing a deadline of the issuance of development permits to two weeks prior to the seasonal closure date to ensure compliance with this section

2006-2008

- Identified and evaluated differing City, County, and District watershed regulations and made recommendations to make more consistent/watershed-wide regulations
- Convened Enforcement Team in 2008

Lake Benefits:

Phosphorus
Reduction

Fecal Coliform
Reduction

Sediment
Reduction

Other

If other, please describe:

Performance Measures: Improved level of compliance with Lake Whatcom regulations in City and County

Outcome: Evaluated options for consistent development regulations resulting in improved regulations and coordination between jurisdictions

Resources/Funding: N/A for City and County
SVCA – 0.1 FTE

Key Next Steps: Modify regulations to achieve better phosphorus reduction

Program Area: 4. Community Outreach

Task: 4.1 Improve Lake Whatcom Management Program website

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2008-Ongoing | City/County Lead | Staff | Active | Indirect |

| | | | | |
|---|--|--|--|---|
| Task Objective: Improve lake stewardship by improving the Lake Whatcom Management Program website information and use | | | | |
| Accomplishments: | | | | |
| 2009 | | | | |
| <ul style="list-style-type: none"> - City and County staff began coordinating efforts to improve the Lake Whatcom Management Program website by making it more accessible and up-to-date - Website maintenance has been dependent on limited staff availability | | | | |
| 2008 | | | | |
| <ul style="list-style-type: none"> - Posted regular updates on Lake Whatcom regulations, projects, and events - Provided email notifications when significant updates occurred - Added information regarding new on-site sewage system regulations | | | | |
| Lake Benefits: | Phosphorus Reduction <input checked="" type="checkbox"/> | Fecal Coliform Reduction <input checked="" type="checkbox"/> | Sediment Reduction <input checked="" type="checkbox"/> | Other <input checked="" type="checkbox"/> |
| If other, please describe: Increased awareness of issues and events pertaining to Lake Whatcom | | | | |
| Performance Measures: General update of monthly, reports, announcements and events | | | | |
| Outcome: Improved coordination of staff working on website will make the website a useful tool for improving lake stewardship, increase number of visits (hits) to the website | | | | |
| Resources/Funding: Minimal resources available | | | | |
| Key Next Steps: More time needs to be devoted to maintaining the website and marketing it as an information tool for the community | | | | |

Program Area: 4. Community Outreach

Task: 4.3 Expand efforts to educate and activate watershed residents and visitors

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2005-Ongoing | City/County/SVCA | Staff | Active | Indirect |

Task Objective: Improve lake stewardship by expanding efforts to educate and activate watershed residents and visitors

Accomplishments:

2009

- Met with the Puget Sound Partnership EcoNet to create training opportunities, speaker series, and a watershed festival
- County Public Works and Planning staff met with watershed Geneva neighborhoods in late winter about NPDES Phase II requirements, watershed regulations, and low impact development education and options
- 107 watershed residents participated in stormwater education workshops (2008-2009)
- Used survey and focus group results from *Silver Beach Creek Pilot Project* (SBCP) to more effectively expand education and outreach efforts
- Held community meeting as part of the SBCP on Nov. 18th to provide information and gain feedback from residents on ways to more effectively communicate and activate residents in the Silver Beach Creek watershed
- Sudden Valley staff generated several published articles detailing the ICT group, TMDL program, and water quality issues
- Whatcom County Health Department (WCHD) completed education folder, *Homeowner's Guide to On-site Sewage Systems*, to be distributed to public by on-site sewage system (OSS) maintenance service providers during service calls

2008

- Worked with Silver Beach, Geneva, Hillsdale, and Sudden Valley neighborhoods to develop area specific programs
- Updated Pledge Program delivered to residents by neighbors
- Hazardous Household Waste Collection event collected and removed over 11 tons of hazardous household waste from the watershed
- WCHD conducted focus groups to solicit input on the development of new OSS maintenance educational materials

2005-2007

- County continued to support the Mutt Mitt program in the watershed
- City mailing of watershed-friendly pet owner packet for all licensed dog owners
- Updated dog brochure to include new park rules and regulations for dog owners
- Environmental Education Team recruited a Sudden Valley volunteer for its "Hounds for Healthy Watersheds" program. Efforts were made to recruit more volunteers to expand program.

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe: Improved lake stewardship

Performance Measures: Surveys, focus groups, # of pledges, lbs of waste collected, # of new programs

Outcome: Expanded efforts to educate and activate watershed residents and visitors

Resources/Funding: City – 0.1 FTE (funded for Silver Beach), County – 0.1 FTE, SVCA – 0.2 FTE

Key Next Steps:

Program Area: 4. Community Outreach
Task: 4.4 Create stewardship incentive programs

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2008-Ongoing | ICT | Staff | Active | Indirect |

| | | | | |
|--|--|--|--|---|
| Task Objective: Improve lake stewardship by creating stewardship incentive programs | | | | |
| Accomplishments: | | | | |
| 2009 | | | | |
| <ul style="list-style-type: none"> - Met with PSP EcoNet to review and implement region-wide incentive programs - Initiated stewardship incentive programs in winter 2008-2009 as part of <i>Silver Beach Creek Pilot Project</i> (SBCP) - Watershed protection participation incentives were purchased including: 23 rain barrels, 80 native plant coupons, 100 car wash coupons, 80 fertilizer coupons, and 200 rechargeable flashlights - Purchased 4 dog waste dispensers and a one year supply of dog waste bags - Retrofitted approximately 100 homes with two hundred 95-gallon rain barrels | | | | |
| 2008 | | | | |
| <ul style="list-style-type: none"> - Legislative actions taken to encourage compliance - Tracked changes in behavior and participation rates that resulted in impacts to lake - Enhanced stewardship programs for Acquisition Program Properties | | | | |
| Lake Benefits: | Phosphorus Reduction <input checked="" type="checkbox"/> | Fecal Coliform Reduction <input checked="" type="checkbox"/> | Sediment Reduction <input checked="" type="checkbox"/> | Other <input checked="" type="checkbox"/> |
| If other, please describe: Improved stewardship as a result of behavior change incentives | | | | |
| Performance Measures: Participation in incentive programs, e.g. Number of rain barrels installed on participating properties | | | | |
| Outcome: | | | | |
| <ul style="list-style-type: none"> - Improved lake stewardship as a result of incentive-driven behavior change - Management of approximately 2 million gallons of stormwater per year | | | | |
| Resources/Funding: ICT Lead – 0.1 FTE City staff 0.02 FTE, Extension staff 0.02 FTE, County staff 0.02 FTE 2009-Puget Sound Partnership grant, Ecology Stormwater Implementation Grant (75% of project costs) | | | | |
| Key Next Steps: Implement in Silver Beach Creek Pilot area | | | | |

Program Area: 4. Community Outreach
Task: 4.5 Expand Lake Friendly Gardening Program

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-----------------------|-------|--------|-------------|
| 2008-Ongoing | City/County/Extension | Staff | Active | Direct |

Task Objective: Improve lake stewardship by providing lake friendly gardening and landscape information to watershed residents and landscape professionals

Accomplishments:

2009

- City and County staff led Water Wise/Lake Friendly Gardening Tour
- WSU Extension conducted 2 pilot Sustainable Landscaping classes in the watershed
- Participants in the 6-part class received training on a variety of water-friendly practices including soils/mulch/compost, site design/right plant, right place, integrated pest management, lawn care/fertilizer use, low-impact maintenance, runoff reduction techniques, and native plants/wildlife habitat.
- In exchange for the no-cost training, participants all implemented on-the-ground changes to improve water quality on their properties and provided various types of outreach to the broader community on water-friendly gardening.
- WSU Extension supported Master Gardener Foundation in conducting Water-Friendly Gardening Tour
- WSU Extension created *how to build a rain garden* DVD to be used in future outreach efforts

2008

- Provided Lake Friendly Gardening program to reach additional audiences
- WSU Extension Master Gardeners, Master Composters, and Beach Watchers coordinated to construct a demonstration rain garden in the Silver Beach Creek watershed

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe: Reduce pollutant load from lawn and garden practices

Performance Measures: Contacts and feedback from gardeners

Outcome: Change gardening practices to reduce pollution to lake

Resources/Funding: County – 0.1 FTE partially funded by County and some City staff time; WSU Extension

Key Next Steps: Apply lessons to Silver Beach Creek Pilot area; Continuation of Sustainable Landscape training and tours

Program Area: 4. Community Outreach
Task: 4.6 Provide watershed education in schools

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2008-Ongoing | City | Staff | Active | Indirect |

| | | | | |
|--|--|--------------------------|--|--|
| Task Objective: Improve lake stewardship by targeting water quality education through existing 5 th grade <i>Sharing Our Watershed - Watershed and Me</i> program for public and private schools of Bellingham | | | | |
| Accomplishments: | | | | |
| 2008-2009 | | | | |
| <ul style="list-style-type: none"> - Over 1200 students and parents participated in the <i>Watershed and Me</i> program in 2008 and 2009 - Program includes pre-trip, fieldtrip and post-trip | | | | |
| Lake Benefits: | | | | |
| Phosphorus Reduction | <input checked="checked" type="checkbox"/> | Fecal Coliform Reduction | <input checked="checked" type="checkbox"/> | Sediment Reduction |
| | | | <input type="checkbox"/> | Other |
| | | | | <input checked="checked" type="checkbox"/> |
| If other, please describe: Citizen education | | | | |
| Performance Measures: Student and parent contacts, teacher surveys and feedback, high school surveys | | | | |
| Outcome: Provided basics of the watershed, water supply systems and water conservation to students | | | | |
| Resources/Funding: City staff time 0.25 FTE | | | | |
| Key Next Steps: Evaluate program to determine effectiveness | | | | |

Program Area: 5. Data Management and Information

Task: 5.1 Review all monitoring studies and reports

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|----------|--------|-------------|
| 2005-Ongoing | Joint/District | \$50,000 | Active | Indirect |

Task Objective: Manage data and information to detect water quality and quantity trends by reviewing all monitoring studies and reports to determine policy implications

Accomplishments:

2009

- First phase of the Lake Whatcom Tributary Monitoring Program was completed
- Findings were evaluated by Data Team who gave recommendations to the ICT:
 - o Further storm event monitoring is needed
 - o Extension of Brown and Caldwell contract through 2011
- City Public Works and County Health Department began an extensive baseline monitoring program of the Silver Beach Creek Watershed

2008

- Summarized water quality issues and outlined policy recommendations

2007

- Created report identifying high priority areas and issues of concern with possible policy recommendations

2005-2006

- Data Team reviews all Lake Whatcom water quality studies and reports and presents policy-recommendations to the ICT and the Lake Whatcom Management Committee for review

Lake Benefits:

Phosphorus
Reduction

Fecal Coliform
Reduction

Sediment
Reduction

Other

If other, please describe: Water Quality trends are represented in management strategy

Performance Measures: Adapted management tasks based on new information

Outcome: Water Quality trends are represented in management strategy, policy implications determined and passed on to ICT

Resources/Funding: As required of staff
\$50,000 equivalent

Key Next Steps: Review IWS report in early 2010

Program Area: 5. Data Management and Information
Task: 5.2 Provide data for tributary loading model updates

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------------|-----------|--------|-------------|
| 2005-Ongoing | City/County/Consultants | \$342,000 | Active | Indirect |

Task Objective: Manage data and information to detect water quality and quantity trends by providing data for tributary pollutant loading model updates

Accomplishments:

2009

- Completed the Joint County, City, and District Tributary Monitoring Project
- County developed plans to continue monitoring storm events at existing and new locations

2008

- Conducted tributary monitoring for pollutant loading data model calibration and update
- Created report with water quality and quantity data for specified tributaries

2007

- Compiled data from Institute for Watershed Studies' tributary monitoring for data reporting
- Consultant hired to expand upon tributary monitoring program to include other parameters

2005-2006

- Institute for Watershed Studies (IWS) at WWU conducted monthly monitoring at multiple tributaries for the 2005/2006 sampling year. Data from these studies is located on IWS website.

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe: Development of increasingly accurate lake load/response models

Performance Measures: Improved model calibration and accuracy

Outcome: Information generated from Tributary Monitoring Project will be beneficial in proceeding with the TMDL implementation plan

Resources/Funding: 2-year cost \$342,000 (2009)
 Joint 0.1 FTE – Funded City and County staff admin services
 Consultants WWU, Brown and Caldwell – Funded \$200,000

Key Next Steps: Input data into lake models

Program Area: 5. Data Management and Information
Task: 5.3 Maintain and update data records

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|---------|--------|-------------|
| 2005-Ongoing | Joint/City | \$1,200 | Active | N/A |

| | | | | |
|---|---|---|---|--------------------------------|
| Task Objective: Manage data and information to detect water quality and quantity trends by maintaining and updating data records | | | | |
| Accomplishments: | | | | |
| 2009 | | | | |
| - No activity in 2009 | | | | |
| 2008 | | | | |
| - Completed annual update of bibliography, abstracts, and library collections of Lake Whatcom reports | | | | |
| - Updated Lake Whatcom Data Catalog and provided reports to libraries | | | | |
| 2005-2007 | | | | |
| - Updated Lake Whatcom Data Catalog at Whatcom County's Stormwater Division | | | | |
| Lake Benefits: | | | | |
| | Phosphorus Reduction <input type="checkbox"/> | Fecal Coliform Reduction <input type="checkbox"/> | Sediment Reduction <input type="checkbox"/> | Other <input type="checkbox"/> |
| If other, please describe: | | | | |
| Performance Measures: Number of updates made to data catalog | | | | |
| Outcome: Maintain access to comprehensive data catalog | | | | |
| Resources/Funding: Joint 0.02 FTE – Funded City ER \$1,200 | | | | |
| Key Next Steps: Update in 2010 | | | | |

Program Area: 6. Spill Response and Hazardous Materials
Task: 6.1 Update spill response capability

| Period | Responsible Party | Costs | Status | P Reduction |
|-----------|-------------------|----------|--------|-------------|
| 2005-2009 | Joint | \$10,000 | Done | N/A |

Task Objective: Prevent water quality degradation due to the spill of hazardous materials by updating spill response capabilities

Accomplishments:

2009

- No activity in 2009

2008

- Obtained additional National Incident Management System (NIMS) training
- Plans made to add Lake Whatcom chapter to the City, County, Lake Whatcom Water and Sewer District, and Fire District Emergency Operations Plans
- Created Spill Response Plans specific to Lake Whatcom for each jurisdiction

2007

- City contracted with CH2M to conduct an exercise to evaluate spill response capabilities

2005

- Lake Whatcom Water and Sewer District published an emergency management plan that included provisions for spill response among other potential hazards

Lake Benefits:

Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe: Prevention of water quality degradation resulting from hazardous material spills

Performance Measures: Number of exercises to assess and maintain capabilities

Outcome: Improved interjurisdictional response capability

Resources/Funding: Joint 0.03 FTE
 Current staff or consultants- \$10,000

Key Next Steps: Add Lake Whatcom chapter to local Emergency Operations Plans and conduct simulation exercises more frequently to measure progress in terms of improved capabilities

Program Area: 7. Forestry/Fish/Wildlife
Task: 7.1 Seek updates from the IJC review of DNR activities

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|------------------------|--------|-------------|
| 2005-Ongoing | City/County | Staff/\$6,000 per year | Active | Indirect |

Task Objective: Promote actions and programs that protect and enhance fish and wildlife habitat by seeking updates from the Interjurisdictional Committee's (IJC) review of DNR activities

Accomplishments:

2009

- Annual IJC Report to Management Committee delivered at February meeting
- ICT reviewed and commented on Forest Practice Applications for timber harvesting on private forest lands
- ICT received and reviewed consultant reports on the 2009 DNR Timber Harvest and Lands Management Plan
- Staff met with DNR to discuss FPA process and our need for strict water quality protection measures
- ICT requested meeting with Department of Ecology to advocate for stricter DOE enforcement of water quality standards

2008

- Set up annual meeting to review IJC findings
- Provided ICT recommendations to the IJC

2005

- IJC formally convened and established ground rules for project reviews

Lake Benefits: Phosphorus Fecal Coliform Sediment Other
 Reduction Reduction Reduction

If other, please describe: Ensure Lake Whatcom Landscape Plan implementation.

Performance Measures: Compliance with Lake Whatcom Landscape Plan

Outcome: Compliance with Lake Whatcom Landscape Plan, reduce forest impacts to water quality

Resources/Funding: 0.01 FTE, funded by City and County. Staff time increased in 2009 to respond to FPA conditions.

Key Next Steps: Continue review of IJC reports

Program Area: 8. Transportation

Task: 8.1 Improve transportation planning coordination

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2005-Ongoing | City/County | Staff | Active | Indirect |

Task Objective: Protect water quality from transportation-related activities by improving transportation planning coordination in a manner consistent with water quality protection goals

Accomplishments:

2009

- No activity in 2009

2008

- Amended comprehensive plans to guide transportation projects to minimize water quality impacts in the watershed
- Convened Transportation Team during 2008
- County staff began process for 2011 County Comprehensive Plan Update

2005-2006

- New goals and policy added to Transportation Element of the City’s Comprehensive Plan under a new “Lake Whatcom Watershed” heading. City Council adopted Comp Plan in June 2006.
- Meeting held with City and County transportation staff, Lake Whatcom staff, and members of the trucking industry to discuss truck route issues in the watershed.

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe: reduction of transportation related pollutants

Performance Measures: N/A

Outcome: N/A

Resources/Funding: N/A

Key Next Steps: City and County plans to revisit goals and policies regarding transportation in the Lake Whatcom watershed and for their 2011 Comprehensive Plan updates

Program Area: 8. Transportation
Task: 8.2 Reduce vehicle mile trips (VMT) in watershed

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2006-Ongoing | City/County | Staff | Active | N/A |

Task Objective: Protect water quality from transportation-related activities by reducing vehicle mile trips (VMT) in the watershed

Accomplishments:

2009

- No activity in 2009

2008

- Coordinated with WTA to identify and implement strategies to increase transit ridership in watershed
- Coordinated with neighborhood groups and associations within watershed to identify and implement programs and physical improvements that promote commute trip reduction
- Planned and designed bike/pedestrian facilities along major transportation routes
- City completed section of pervious bike lane on Northshore Drive in September of 2008

2006-2007

- WTA modified transit schedule to Sudden Valley to increase ridership, which reduced single vehicle trips

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe: Reduce petro-chemical pollutant load to lake

Performance Measures: Education and traffic counts

Outcome: Reduction of vehicle generated pollution

Resources/Funding: City – Existing staff for coordination Transportation Team. Additional FTEs required for implementation. County –0.05 FTE (funded) for coordination. Additional FTEs required for implementation.

Key Next Steps: Continue development in the watershed to create more SOV trip opportunities

Program Area: 9. Recreation

Task: 9.1 Reduce park impacts to watershed water quality

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-----------------|
| 2005-Ongoing | ICT/Park staff | Staff | Active | Direct/Indirect |

Task Objective: Promote recreational opportunities that do not degrade water quality by reducing park impacts to watershed water quality

Accomplishments:

2009

- County and City staff reviewed parking plan for Lookout Mountain Preserve
- Convened ICT and Park Staff

2008

- Coordinated with City and County Parks Departments to develop and manage parks and open spaces in the watershed in a manner consistent with water quality protection goals
- Developed recommendations and supported implementation of Park and Open Space Master Plans to minimize water quality impacts in the watershed
- Convened ICT/Park staff meeting
- Participated in project review team for Silver Beach Preserve Trail

2007

- City's Watershed Advisory Board provided recommendations for managing open space that are consistent with water quality protection goals

2005

- County updated Comprehensive Parks, Recreation and Open Space Plan to provide guidance for the long-range development, acquisition and delivery of parks and recreation services in Whatcom County.

Lake Benefits:

Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe: reduce park impacts to watershed

Performance Measures: Treed acres restored

Outcome: Park design and use will not further degrade tributary or lake water quality

Resources/Funding: Joint - Current ICT and Park staff

Key Next Steps: Cooperate in design and use of reconveyed lands

Program Area: 10. Utilities and Waste Management
Task: 10.1 Continue OSS contract with County Health Department

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|----------|--------|-------------|
| 2005-Ongoing | City | \$90,000 | Active | Direct |

Task Objective: Promote conservation of water resources by continuing onsite septic system (OSS) contract with the County Health Department

Accomplishments:

2009

- Contract current with focus on Silver Beach Creek

2008

- Contract updated to include survey inspections, updated database of septic systems, response to failing septic systems, and homeowner education
- Summarized results of on-site septic system surveys, water quality monitoring and follow-up actions

2007

- (Formerly Task 10.3) County Health Department continued to conduct OSS surveys, education, and water quality monitoring. 20% of the OSS in the Lake Whatcom watershed are inspected each year.

2005

- Contract renewed at the end of 2005

Lake Benefits:

Phosphorus Reduction

Fecal Coliform Reduction

Sediment Reduction

Other

If other, please describe:

Performance Measures: Septic systems inspected and maintained

Outcome: Reduce pollutant loading from failing OSS

Resources/Funding: City – 0.015 FTE, funded contract \$90,000 (2008)

Key Next Steps: Annual re-evaluation of contract deliverables

Program Area: 10. Utilities and Waste Management

Task: 10.2 Improve oversight of the provision of water and sewer services

| Period | Responsible Party | Costs | Status | P Reduction |
|-----------|-------------------|-------|--------|-------------|
| 2008-2009 | Joint | Staff | Done | Indirect |

Task Objective: Promote conservation of water resources and provision of sewer to areas with on-site treatment by improving the oversight of the provision of water and sewer services

Accomplishments:

2008-2009

- Standardized City and Water District regulations for provision of services
- Through RCW 57.16.101, the County evaluates water and sewer plans for consistency with GMA and other related planning documents, and uses the results of that analysis to condition the approval or to justify the decision to reject the plan(s).

Lake Benefits:

Phosphorus Reduction

Fecal Coliform Reduction

Sediment Reduction

Other

If other, please describe:

Performance Measures:

Outcome: Task discontinued

Resources/Funding: County staff, funded

Key Next Steps: Task discontinued

Program Area: 10. Utilities and Waste Management
Task: 10.3 Improve monitoring and maintenance of utilities

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2005-Ongoing | District/City | Staff | Active | Direct |

Task Objective: Promote conservation of water resources and provision of sewer to areas with on-site treatment by improving the monitoring and maintenance of utilities

Accomplishments:

2009

- Lake Whatcom Water and Sewer District (District) replaced two sewer pump stations: North Point Sewer Pump Station and The Tomb Sewer Pump Station
- District continued TV inspection of sewer mains
- District installed 500 sewer manhole dishes in Geneva and Sudden Valley to reduce ground and surface water inflow and infiltration to sewer system
- City and District completed sewer line inspections and identified and completed maintenance and repair projects

2008

- District replaced two sewer pump stations: Strawberry Canyon Sewer Pump Station and Plum Sewer Pump Station
- District continued TV inspection of sewer mains
- City and District conducted annual sewer line inspection and repair report
- Reported on results of inspections and identified and scheduled repairs
- City maintained 5 sewer line vaults
- Whatcom County Health Department implemented new septic system maintenance regulations

2007

- District replaced Airport Sewer Pump Station and Austin Sewer Pump Station
- District constructed emergency containment berm at Ranch House Sewer Pump Station
- District continued TV inspection of sewer mains

2006

- District repaired 29 sewer main locations that had groundwater infiltration
- District replaced 3 deteriorated sewer manholes along Lake Whatcom Boulevard
- District continued TV inspection of sewer mains

2005

- District replaced Marina Sewer Pump Station and added permanent standby generator to Ranch House Sewer Pump Station and Louise Sewer Pump Station
- District continued TV inspection of sewer mains
- District installed 200 sewer manhole dishes near creeks and ditches along Lake Whatcom Boulevard and Sudden Valley

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: Number of inspections, Number of repairs

Outcome: Improved monitoring and maintenance of utilities

Resources/Funding: District – 0.25 FTE, funded
 City – 0.5 FTE, funded Sewer; 0.01 for ICT report, funded

Key Next Steps:

Program Area: 10. Utilities and Waste Management

Task: 10.4 Reduce water supply impact from new residential construction

| Period | Responsible Party | Costs | Status | P Reduction |
|-----------|-------------------|-------|--------|-------------|
| 2008-2009 | Joint | Staff | Done | Direct |

Task Objective: Promote conservation of water resources by reducing water supply impacts resulting from new residential construction

Accomplishments:

2009

- No activity in 2009

2008

- Began enforcing water and sewer availability requirements before approving exempt wells and on-site septic systems

Lake Benefits:

Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: N/A

Outcome: Task completed

Resources/Funding: Joint – 0.1 FTE, depending on other priorities ICT staff can accomplish

Key Next Steps: Will revisit task in 2010-2014 work plan

Program Area: 11. Administration
Task: 11.1 Maintain coordination between the ICT

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2005-Ongoing | ICT | Staff | Active | N/A |

Task Objective: Support Management Plan implementation by maintaining coordination between the Interjurisdictional Coordinating Team (ICT) in developing and accomplishing Lake Whatcom Management Program (LWMP) goals and tasks for each program element

Accomplishments:

2009

- Coordination among the ICT members resulted in successfully fulfilling numerous Lake Whatcom Management Program tasks

2008

- Actively participated in ICT staff meetings to discuss, implement, and summarize progress of the LWMP work plan
- Scheduled regular ICT meetings and began creating semi-annual progress reports for LWMP Work Plan

2005-2007

- ICT regularly scheduled for two monthly meetings. Work Plan updates outline the progress that has been made on designated tasks.

Lake Benefits:

Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: Number of meetings held, Number of staff participating in regular meetings

Outcome: Implementation of 2005-2009 Work Plan

Resources/Funding: ICT funded

Key Next Steps: Continue to maintain coordination between ICT staff

Program Area: 11. Administration

Task: 11.3 Establish regular communication and coordination between committees

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2005-Ongoing | ICT | Staff | Active | N/A |

Task Objective: Support Management Plan implementation by establishing regular communication and coordination between the ICT and the Lake Whatcom Management Committee

Accomplishments:

2009

- Organized two meetings of the Lake Whatcom Management Committee

2008

- Organized monthly meetings between LWMC and ICT to discuss progress of work plan
- Held monthly Lake Whatcom Management Committee meetings

2005-2007

- (Formerly Task 11.4) ICT meets with the Lake Whatcom Management Committee on a monthly basis for progress reports on the Work Plan and other relevant Lake Whatcom topics

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: Number of meetings held

Outcome: Established regular communication and coordination between ICT and Lake Whatcom Management Committee

Resources/Funding: ICT funded

Key Next Steps:

Program Area: 11. Administration

Task: 11.5 Integrate the Lake Whatcom Management Program goals

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2005-Ongoing | ICT | Staff | Active | Indirect |

Task Objective: Support Management Plan implementation by integrating the Lake Whatcom Management Program goals and tasks with City, County, and District comprehensive planning

Accomplishments:

2009

- The City and County revisited goals and policies regarding the Lake Whatcom watershed for their 2011 Comprehensive Plan Updates

2008

- Developed recommendations for amendments to the City, County, and District Comp Plans
- Made amendments to City, County, and District comprehensive plans to include LWMP Goals from 1992 Joint Resolution

2005-2007

- City's Comp Plan update included Lake Whatcom Watershed sections in the Land Use and Transportation Elements for the first time

Lake Benefits:

Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: Goals and policies integrated into Comprehensive Plans

Outcome: Efforts made to integrate the Lake Whatcom Management Program goals and tasks into City, County, and District Comprehensive Plans

Resources/Funding: ICT funded

Key Next Steps:

Program Area: 11. Administration
Task: 11.6 Coordinate and maintain contact with agencies

| Period | Responsible Party | Costs | Status | P Reduction |
|---------------|--------------------------|--------------|---------------|--------------------|
| 2005-Ongoing | ICT | Staff | Active | N/A |

Task Objective: Support Management Plan implementation by coordinating and maintaining contact with agencies for updates on studies pertaining to Lake Whatcom

Accomplishments:

2009

- Staff met frequently with Department of Ecology staff to discuss TMDL requirements
- Staff met with DNR to communicate concerns with forest practice permit process

2008

- Used updates and studies as a part of the annual review of Lake Whatcom monitoring through the Data and Information Management program element of the Work Plan
- Summarized studies that had been incorporated into policy recommendations
- Received updates from Huxley Institute of Watershed Studies and other agencies

2005-2007

- ICT staff attended various meetings in order to coordinate and maintain contact with agencies for updates on studies related to Lake Whatcom

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: Number of meetings/contacts with agencies

Outcome: Information exchange improved agency understanding of local jurisdictions perspective and resources

Resources/Funding: ICT funded

Key Next Steps:

Program Area: 12. Enforcement
Task: 12.1 Improve enforcement capability

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------|-------|--------|-------------|
| 2008-Ongoing | ICT - County | Staff | Active | Direct |

| | | | | |
|---|--|---|--|--------------------------------|
| Task Objective: Protect lake water quality by improving City and County enforcement capabilities | | | | |
| Accomplishments: | | | | |
| 2009 | | | | |
| - County and Sudden Valley staff worked to increase cooperation on enforcement issues, relating to new construction projects and critical areas | | | | |
| 2008 | | | | |
| - Convened Enforcement Team | | | | |
| - Dedicated new FTEs to watershed regulatory enforcement | | | | |
| - Convened Lake Whatcom Management Team to discuss Enforcement Team recommendations | | | | |
| - Developed a comprehensive calling list and discussed importance of “closing the loop” with enforcement staff | | | | |
| - Sudden Valley hired one additional FTE to increase enforcement capability | | | | |
| Lake Benefits: | Phosphorus Reduction <input checked="" type="checkbox"/> | Fecal Coliform Reduction <input type="checkbox"/> | Sediment Reduction <input checked="" type="checkbox"/> | Other <input type="checkbox"/> |
| If other, please describe: | | | | |
| Performance Measures: Increased interjurisdictional coordination on enforcement issues | | | | |
| Outcome: Improved enforcement capabilities in watershed | | | | |
| Resources/Funding: County – Existing 0.1 FTE, funded ICT – 0.15 FTE, funded SVCA – 1.0 FTE | | | | |
| Key Next Steps: | | | | |

Program Area: 12. Enforcement
Task: 12.2 Improve enforcement of regulations

| Period | Responsible Party | Costs | Status | P Reduction |
|--------------|-------------------------------|-------|--------|-------------|
| 2008-Ongoing | County/Health Department/SVCA | Staff | Active | Indirect |

Task Objective: Improve City and County enforcement of regulations aimed at protecting lake water quality

Accomplishments:

2009

- Sudden Valley staff increased frequency of watershed monitoring, development inspections, complaint response, and on-site compliance review

2008

- Began diligently enforcing all development, clearing, and other land use codes
- Enforced OSS M/O regulations and coordinated with the County Health Department
- Convened management to discuss Enforcement Team recommendations
- Now have daily presence in watershed

Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: Tracking of enforcement actions and compliance review

Outcome: Improved enforcement of regulations aimed at protecting lake water quality

Resources/Funding: County – Existing watershed inspectors and compliance staff
Existing Health Department staff, SVCA – 1.0 FTE

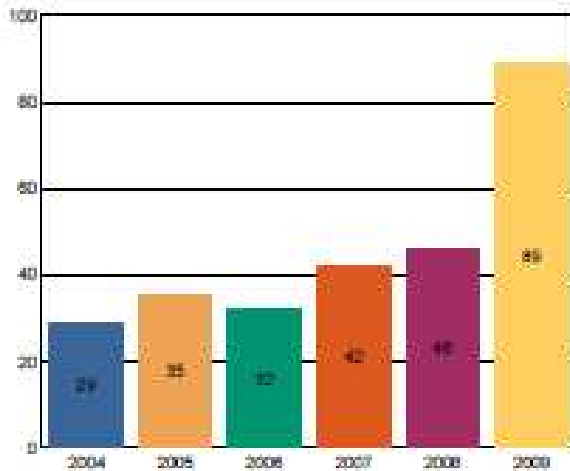
Key Next Steps:

Appendices

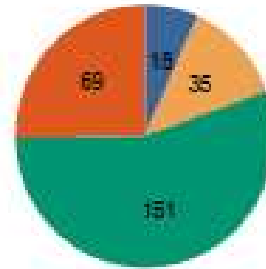


City of Bellingham - Public Works
 City Hall - 210 Lottje Street - Bellingham, WA 98225
 PHONE: (360) 778-7900 FAX 360-778-7901
 Total Parcels: 163
 Number of cases: 273

Count of Permits by (Received) Year



| | | |
|--|-----|--------|
| Code Enforcement | 18 | 6.6% |
| New Construction or Tenant Improvement | 35 | 12.8% |
| Planning and Land Use | 151 | 55.3% |
| Public Works or Storm Water | 69 | 25.3% |
| Total | 273 | 100.0% |



Case Type Groups:
 SUB,ADU,MIS,SEP,GRD,CUR,STR,VAR,BHR - Planning and Land Use
 BLD,CMB,DEM,SON - New Construction or Tenant Improvement
 PBW,STM,PFC - Public Works or Storm Water

Active Permits
 (APP,ACC,AJN,API,CCL,HLD,ISS,PND,REC,RTI) in the Lake
 Whatcom Watershed (based on parcel tag import
 5/2008) Since 1/1/2004 to 11/23/2009
 Grouped by Application Received Date
 Excludes Ancillary Electrical Permits (ELE), Plumbing (PLM),
 and Mechanical (MEC) Permits
 Status of report: **Final**
 Last run: 11/23/2009

Status Key
 ACC Accepted for Review
 CCL Reviewed by City sent back for corrections
 ISS Issued
 AJN Amend Plans Accepted/ Inspections OK
 API Amend Plans Accepted
 RTI Ready to Issue
 HLD Hold
 APP Approved (Planning)
 REC Received (Planning)

3603220601550000

CMB2004-00014 ISS 150 NORTHSORE DR Received Date: 01/20/2004

| Role | Name | Address |
|------|---------------------------|---|
| OWN | DAVID C & BONITA L EBENAL | P O BOX 31548 BELLINGHAM WA 98228 |
| CON | EBENAL GENERAL INC | 4338 PACIFIC HWY BELLINGHAM WA 98228 |
| APL | ZIGOR PEARNINGTON | 1304 LINDSAY LP MT VERNON WA 98274 |

--- Project Description ---
 New Construction or Tenant Improvement
 NEW SINGLE FAMILY RESIDENCE WITH
 ATTACHED GARAGE

3603225432080000

LLD2004-00003 REC SILVER BEACH AVE Received Date: 01/26/2004

| Role | Name | Address |
|------|--------------------------------|---|
| OWN | DANA A-MARGARET A LAGMAY TRUST | MARGARET A LAGMAY TR P O BOX 51018 ELEELE HI 96705-1018 |

--- Project Description ---
 Planning and Land Use
 Legal Lot Determination for subject property

3803213920290000SUB2004-00008 REC 2318 CRESTLINE DR Received Date: 02/16/2004

| Role | Name | Address |
|------|-------------------|---|
| OWN | VENTURADO JO ANNE | 2318 CRESTLINE DR BELLINGHAM WA 98226-5003 |

--- Project Description ---
Planning and Land Use

Request for a 3 lot street plat, Alabama and Crestline, Alabama Hill Neighborhood, Area 2, Residential Single

3803223904250000VAR2004-00004 REC 4725 E OREGON ST Received Date: 02/17/2004

| Role | Name | Address |
|------|-----------------|---|
| OWN | NEMER TIMOTHY A | 4725 E OREGON ST BELLINGHAM WA 98226 |

--- Project Description ---
Planning and Land Use

Extension of VAR2002-00002. Previous app expired. Request for variance for public street construction of abutting E Oregon St and extension of public sewer to less than normal standards.

3803275415040000SEP2004-00082 APP 2024 NORTHSORE DR Received Date: 03/25/2004

| Role | Name | Address |
|------|----------------------------|---|
| OWN | LOUIS A & KATHRYN J JANSEN | 4071 HANNEGAN RD #0 BELLINGHAM WA 98226-7623 |

--- Project Description ---
Planning and Land Use

SEPA application for replacing existing pilings and dock structure. Same dimensions and in the same location

3803220601550000PBW2004-00547 ISS 150 NORTHSORE DR Received Date: 04/23/2004

| Role | Name | Address |
|------|---------------------------|---|
| OWN | DAVID C & BONITA L EBENAL | P O BOX 51548 BELLINGHAM WA 98226 |
| CON | EBENAL GENERAL INC | 4326 PACIFIC HWY BELLINGHAM WA 98226 |

--- Project Description ---
Public Works or Storm Water

NEW SINGLE FAMILY RESIDENCE w/ ATTACHED GARAGE TO REPLACE EXISTING SINGLE FAMILY RESIDENCE, CUSTOMER ACCT #3391. NEW FUTURE METER BOX, AND INSPECTION PERMITS. ALL EROSION CONTROLS MUST BE IN PLACE AND INSPECTED PRIOR TO LAND DISTURBANCE.

3803220944540000MIS2004-00021 ISS 4047 SPRINGLAND CT Received Date: 04/02/2004

| Role | Name | Address |
|------|-------------------------|--|
| OWN | TRAVIS & CAROL S MOSKAL | 4047 SPRINGLAND CT BELLINGHAM WA 98226-6885 |

--- Project Description ---
Planning and Land Use

Request for overweight fence at subject property.

3803224700820000MIS2004-00028 REC 1780 NORTHSORE DR Received Date: 04/30/2004

| Role | Name | Address |
|------|------------------------------|---|
| OWN | GILBERT A & VIRGINIA A BAKER | 1780 NORTHSORE DR BELLINGHAM WA 98226-0418 |

--- Project Description ---
Planning and Land Use

Request to remove 5 Pine Street Trees obstructing view of road. Owner would like to replace trees with a fence

3803225423080000LLD2004-00011 APP ACADEMY ST Received Date: 04/30/2004

| Role | Name | Address |
|------|-----------------------|----------------------------------|
| OWN | JEAN D BAKER TRUST/TR | 7511 HAM RD FERNDALE WA 98248 |

--- Project Description ---
Planning and Land Use

Request for legal lot determination, 2000 block of Huntington, Silver Beach Nbrhd, Area 4

3803225133570000SUB2004-00028 REC 3001 HUNTINGTON ST Received Date: 04/26/2004

| Role | Name | Address |
|------|---------------------------------|---|
| OWN | HEAPS EVELYN A | P O BOX 814 BELLINGHAM WA 98227-0814 |
| APL | M P COSTELLO DESIGN & CONST LLC | 2400 40TH BELLINGHAM WA 98226 |

--- Project Description ---
Planning and Land Use

Request for lot line adjustment, Huntington & E Indiana, Silver Beach Nbrhd, Area 4, Residential Single, SP #2073-A

Lake Whatcom Management Program Contacts:

Whatcom County Public Works
Jon Hutchings, 676-6692, jhutchin@co.whatcom.wa.us

City of Bellingham Environmental Resources Division
Clare Fogelsong, 778-7965, cfogelsong@cob.org

Lake Whatcom Water and Sewer District
Office Phone: 734-9224, general.inbox@lwwsd.org