

Program Area: 10. Utilities & Waste Management

Goal:

Promote conservation of water resources and provision of city sewer to areas with on-site treatment.

The Utilities and Waste Management Program Area aims to promote water-use efficiency by residential, industrial, and commercial users. This program area also strives to minimize water quality impacts associated with on-site waste systems by ensuring existing on-site septic systems and sewers are working effectively and by advocating for the provision of city sewer to areas with on-site treatment.

Notable Accomplishments:

The City's water conservation program has been active since the early 1990s. Reducing outdoor water use during peak demand periods has been promoted through education and outreach, and through a rain barrel program. Reductions in indoor water usage have been encouraged through distribution of water conservation kits that contain a low-flow showerhead, faucet aerators, a toilet displacement bag, and water conservation information. A Voluntary Metering Program was established that encourages water conservation and accountability. The City also conducts scheduled annual leak detection of water system zones to ensure efficiency and accountability.

The City continues to contract with the Whatcom County Health Department (WCHD) to inspect and maintain on-site sewage systems in the City's portion of the watershed. On-site sewage system inspections are performed in the Lake Whatcom watershed on a routine basis and repairs to failing systems are completed in a timely manner.

At the request of the City the WCHD is taking part in the *Silver Beach Pilot Project* (SBCP) and has been collecting surface water samples from designated sites along Silver Beach Creek on a bi-weekly basis. The WCHD participates on the Lake Whatcom Education Team, collaborating on joint education and outreach projects in the watershed.

WCHD and the City recently completed work on an educational folder entitled *Homeowners Guide to On-site Sewage Systems*. These folders are distributed to OSS owners during service visits within the Lake Whatcom watershed.

Reference Documents:

Washington State 2003 Municipal Water Supply-Efficiency Requirements Act
<http://www.doh.wa.gov/ehp/dw/Programs/wue.htm>

City of Bellingham's Water Use Efficiency Program
<http://www.cob.org/documents/pw/utilities/2008-water-use-efficiency-program.pdf>

On-Site Sewage System Rules and Regulations
 Whatcom County Health Department
 Chapter 24.05 WCC
http://www.co.whatcom.wa.us/health/pdf/oss_regulations.pdf

City of Bellingham Municipal Code Amendments
 Ordinance 2007-04-031
 16.80.080 - Development Standards For Residential Single Development

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Task: 10.1 Continue OSS contract with County Health Department

Period	Responsible Party	Cost Estimate	Status	P Reduction
2010 - 2011	City	\$195,040	Active	Indirect

Task Objective: Continue onsite septic system (OSS) contract with the County Health Department (current through 2011)

Actions:

- Work with County Health Department to continue contract including enforcement of septic system operation and maintenance regulations, updated database of septic systems, response to failing septic systems, and homeowner education
- Create reports summarizing results of on-site septic system surveys, water quality monitoring and follow-up actions

Intended Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures: 1) Annual report of compiled quarterly progress reports on contract tasks

Cost Estimates:

Year	Party	FTEs (\$)	Capital Costs	Other	Total
2010	City			\$97,520	\$97,520
	County				
	District/Other				
2011	City			\$97,520	\$97,520
	County				
	District/Other				
Total				\$195,040	\$195,040

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Task: 10.2 Promote water conservation

Period	Responsible Party	Cost Estimate	Status	P Reduction
2010 - 2014	City	\$1.43 million	Active	None

Task Objective: Promote the conservation of water resources in the Lake Whatcom watershed

Actions: City will:

- Initiate toilet retrofit program for single residential, multi-family, and commercial water utility customers
- Develop high-efficiency fixture program
- Develop future water rate structures with an emphasis on water conservation
- Upgrade city parks to high-efficiency irrigation systems
- Conduct water audits, monitor water meters, and number of rain barrels used to calculate water savings
- Partner with District to promote water conservation in watershed

Intended Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe: Water conservation

Performance Measures:

- 1) Report on number of toilet retro fit kits distributed (2010)
- 2) Report on high efficiency fixture program (2012)
- 3) Report on conservation focused water rate structure (2011)
- 4) Percentage of city parks with high efficiency irrigation systems (2012)
- 5) Include per capita (for metered customers) and city wide water savings in Consumer Confidence reports
- 6) Estimate of annual water savings as a result of program implementation

Cost Estimates:

Year	Party	FTEs (\$)	Capital Costs	Other	Total
2010	City	1.0 (\$100,000)		\$80,000	\$180,000
	County				
	District/Other				
2011	City	1.5 (\$150,000)		\$175,000	\$325,000
	County				
	District/Other				
2012	City	1.5 (\$150,000)		\$175,000	\$325,000
	County				
	District/Other				
2013	City	1.5 (\$150,000)		\$150,000	\$300,000
	County				
	District/Other				
2014	City	1.5 (\$150,000)		\$150,000	\$300,000
	County				
	District/Other				
Total		7.0 (\$700,000)		\$730,000	\$1.43 million

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Task: 10.3 Protect lake from wastewater pollution

Period	Responsible Party	Cost Estimate	Status	P Reduction
2010 - 2014	District	\$4.08 million	Active	Direct/Indirect

Task Objective: Protect the Lake by removing sewage from the watershed

Actions: District will:

- Maintain and replace sanitary sewer infrastructure to efficiently move effluent to treatment plant
- Continue to manage I & I
- Continue to prevent overflows
- Continue mandatory connection to sewer when available and within 200 feet of property
- Not allow extension of Water service without sewer connection
- Only allow approval of on-site septic systems when sewer is not currently available and when economically feasible
- Work with City and County with regard to new development subject to District's sewer and water extension policies
- Complete capital projects

Intended Lake Benefits: Phosphorus Reduction Fecal Coliform Reduction Sediment Reduction Other

If other, please describe:

Performance Measures:

- 1) Annual expenditure per Capital Improvement Plan
- 2) Report annually on District activities outlined above

Cost Estimates:

Year	Party	FTEs (\$)	Capital Costs	Other	Total
2010	City				
	County				
	District/Other	undetermined		\$538,327	\$538,327
2011	City				
	County				
	District/Other	undetermined		\$808,536	\$808,536
2012	City				
	County				
	District/Other	undetermined		\$995,186	\$995,186
2013	City				
	County				
	District/Other	undetermined		\$836,454	\$836,454
2014	City				
	County				
	District/Other	undetermined		\$907,726	\$907,726
Total				\$4.08 million	\$4.08 million