

# Supplemental Budget Request

Status: Pending

**Public Works**

**Stormwater**

<i>Suppl ID #</i> 3062	<i>Fund</i>	<i>Cost Center</i>	<i>Originator: Kraig Olason</i>
------------------------	-------------	--------------------	---------------------------------

**Expenditure Type:** One-Time    **Year 2**    **2020**    **Add'l FTE**     **Add'l Space**     **Priority**    **1**

**Name of Request:** *Silver Beach Creek Phase 1*

X

---

**Department Head Signature (Required on Hard Copy Submission)** **Date**

Costs:	Object	Object Description	Amount Requested
	6110	Regular Salaries & Wages	\$48,000
	6290	Applied Benefits	\$36,000
	6630	Professional Services	\$88,000
	6699	Other Services-Interfund	\$60,500
	7199	Other Miscellaneous/Inte	\$2,500
	7380	Other Improvements	\$545,000
	8301.132	Operating Transfer In	(\$85,000)
	8301.324	Operating Transfer In	(\$695,000)
	<b>Request Total</b>		<b>\$0</b>

**1a. Description of request:**

This project will improve water quality in Silver Beach Creek and Lake Whatcom by reducing the amount of sediment and phosphorus discharge from a developed neighborhood in the Silver Beach Creek drainage basin. Runoff from the Lakewood Development is currently collected in a stormwater detention pond and is then discharged untreated into Silver Beach Creek. Water quality monitoring over the past decade has shown Silver Beach Creek to be a contributor of phosphorus into Lake Whatcom. Lake Whatcom is currently under a TMDL permit due to poor water quality associated with phosphorus and fecal coliform.

This project includes installation of a large filter vault/modular wetland adjacent to Wood Lake Meadows subdivision in the Hillsdale area of the Lake Whatcom watershed. The new water quality facility will reduce the amount of sediment and phosphorus entering Silver Beach Creek by filtering approximately 24 acres of contributing area.

**1b. Primary customers:**

Primary customers include all individuals and businesses that rely on Lake Whatcom for their drinking water (100,000 people), as well as environment at large.

**2. Problem to be solved:**

Lake Whatcom is currently under a TMDL permit as a result of poor water quality and the impacts of algal blooms on public health and other beneficial uses of the lake. The TMDL mandates that Whatcom County and the City of Bellingham develop and implement programs to reduce impacts of phosphorus to the lake. The installation of this project is one of the measures included in the county's listed activities focusing on improving the lake's water quality.

**3a. Options / Advantages:**

For this specific site, due to site constraints, few other options are available. A modular wetland has been chosen as the preferred treatment option because the area has consistent base flow throughout much of the winter. Cartridge vaults require regular dry out periods, which won't occur under base flow conditions. Bioswales, another options, weren't feasible due to limited site area and steep topography.

# Supplemental Budget Request

Status: Pending

Public Works

Stormwater

Suppl ID # 3062

Fund

Cost Center

Originator: Kraig Olason

### 3b. Cost savings:

Actual cost savings are difficult to quantify from this project. Efforts to improve water quality in the lake are required by the TMDL permit. Failure to implement the adopted program elements included in the TMDL response could result in fines. The costs of installing the proposed system is offset by the potential to treat an entire subdivision with one treatment facility as opposed to several smaller systems. The costs and convenience of constructing and maintaining one modular wetland rather than several smaller modular wetlands will prove cost effective.

### 4a. Outcomes:

This project is intended to reduce phosphorus leaving the developed properties within the Lakewood Subdivision. Conservative estimates indicate that phosphorus should be reduced by over 50%. In many cases this reduction could be as much as +60%.

### 4b. Measures:

The designed system will be able to be monitored to determine the level of treatment being achieved. It is our goal to achieve over 50% phosphorus treatment of the runoff from the outlet pond.

### 5a. Other Departments/Agencies:

This project will require regular inspection, at least annually, and regular maintenance. Modular wetlands don't require cartridge replacements every year like cartridge vaults do, but will require modest regular maintenance and replacement of some or all of the treatment media eventually. Overall it is anticipated that modular wetlands will be less costly on an annual basis than typical cartridge vaults.

Public Works Maintenance and Operations Crew will be tasked with regular maintenance activities. The Stormwater Division will be providing frequent inspections.

### 5b. Name the person in charge of implementation and what they are responsible for:

Vernon Brown - Responsible for managing the NPDES crew which provides maintenance services of all stormwater facilities. Kraig Olason, Stormwater Program Manager, responsible to ensure all inspections are made timely.

### 6. Funding Source:

The majority of the funding source for this project is the Real Estate Excise Tax. A secondary source is the Lake Whatcom Stormwater Utility. REET has funded the majority of the Lake Whatcom Stormwater projects over the years..