

PROPOSED BY: Public Works
INTRODUCTION DATE: 07/9/19

RESOLUTION NO. _____

(A resolution of the Whatcom County Flood Control Zone District Board of Supervisors)

AMENDMENT NO. 4 OF THE 2019 BUDGET

WHEREAS, the 2019 budget for the Whatcom County Flood Control Zone District and Subzones was adopted November 20, 2018; and,

WHEREAS, changing circumstances require modifications to the approved 2019 budget; and,

WHEREAS, the modifications to the budget have been assembled here for deliberation by the Board of Supervisors,

NOW, THEREFORE, BE IT RESOLVED by the Whatcom County Flood Control Zone District Board of Supervisors that the 2019 budget as approved in Resolution 2018-044 is hereby amended by adding the following additional amounts to the budgets included therein:

	Expenditures	Revenues	Net Effect
Flood Control Zone District Fund	28,000	-	28,000
Birch Bay Watershed & Aquatic Resources Management District	190,000	-	190,000
Total Supplemental	218,000	-	218,000

ADOPTED this ____ day of _____, 2019


ATTEST:

WHATCOM COUNTY FCZD
BOARD OF SUPERVISORS
WHATCOM COUNTY, WASHINGTON

Dana Brown-Davis, Council Clerk

Rud Browne, Chair of Board of Supervisors

APPROVED AS TO FORM:



Civil Deputy Prosecutor

2019 Flood Control Zone District and Subzones Budgets Amendment #4				
		<u>Expenditures</u>	<u>Revenues</u>	<u>Fund Balance</u>
Flood Control Zone District Fund				
Flood Control Zone District Fund	To fund transfer to the Storm Water Fund to develop the fee roll.	28,000	-	28,000
Birch Bay Watershed & Aquatic Resources Management District	To fund drainage improvements along Birch Bay Drive.	<u>190,000</u>	<u>-</u>	<u>190,000</u>
Total Flood Control Zone District Supplemental		<u>218,000</u>	<u>-</u>	<u>218,000</u>

Supplemental Budget Request

Status: Pending

Public Works

Flood Control Zone District

Suppl ID # 2749 Fund 169

Cost Center 169100

Originator: Kraig Olason

Year 1 2019

Add'l FTE

Priority 1

Name of Request: Companion request to SBR-2747 from Stormwater

X



6/24/19

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	8351.128	Operating Transfer Out	\$28,000
	Request Total		\$28,000

1a. Description of request:

This is a companion request to SBR-2747 for the Stormwater Fund to provide support for Developing the 2020 Fee Roll for the Lake Whatcom Stormwater Utility.

1b. Primary customers:

2. Problem to be solved:

3a. Options / Advantages:

3b. Cost savings:

4a. Outcomes:

4b. Measures:

5a. Other Departments/Agencies:

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

6. Funding Source:

Flood fund balance

Supplemental Budget Request

Status: Pending

Public Works

Stormwater

Suppl ID # 2744 Fund 16925 Cost Center 925901801 Originator: Kraig Olason

Year 1 2019

Add'l FTE

Priority 1

Name of Request: BB Outfall Improve - PW3

X



6/24/19

Department Head Signature (Required on Hard Copy Submission)

Date

Costs:	Object	Object Description	Amount Requested
	6630	Professional Services	\$18,000
	6699	Other Services-Interfund	\$10,000
	7380	Other Improvements	\$162,000
	Request Total		\$190,000

1a. Description of request:

This project will improve drainage along Birch Bay Drive by installing an upsized storm pipe conveyance system along Birch Bay Drive between Pt. Whitethorn Road and Holeman Ave. This project will also construct a new outfall off of Pt. Whitehorn Road into an existing pond as the existing outfall ditch to the Beaver Pond is becoming heavily incised and eroded. The project is being done in conjunction with the Birch Bay Water and Sewer District who will be connecting residents to an existing eight inch water main and abandoning and older 4 inch waterline along the same portion of Birch Bay Drive as the stormwater improvement project. Combining these two activities will reduce the impact to the property owners and provide some savings to both Whatcom County and Birch Bay Water and Sewer District

1b. Primary customers:

Property owners along both sides of Birch Bay Drive will receive benefits from a properly working stormwater drainage system. Whatcom County Parks/Whatcom County will receive benefits from the new outfall to the beaver dam just east of Point Whitehorn Road. This section of the existing drainage system was excessively eroded and contributing sediment to the beaver pond and Terrell Creek.

2. Problem to be solved:

In December 2017, the failure of a corrugated metal outfall pipe on Birch Bay Drive caused a significant slope failure on a steep bluff to the shoreline, posing a critical public safety issue. The replacement of this outfall was scheduled for construction in 2021, but this pipe failure called for emergency action.

Temporary repairs were installed immediately, with the majority of the final slide repair constructed in early January 2019. The temporary pipe, essentially an 18 inch fire hose, installed to the beach is a stop gap measure to allow for the construction of the upgraded conveyance system which will provide capacity to drain all of the neighborhood water to a new outfall just east of Point Whitehorn Road.

The project allows for the abandonment of the failed outfall and is designed to collect and convey the surface water generated in the area. Currently much of the stormwater surface flow is not collected by the existing drainage system and in places crosses the road and runs across the water ward lots draining on the unstable slope above the beach. The Birch Bay Watershed Aquatic and Resources Management District has prioritized all stormwater conveyance projects adjacent to unstable bluffs as a high priority.

Both public and private property are affected by surface water flows in this sensitive area. The installation of this system will greatly reduce those stormwater impacts.

Several factors have contributed to the additional costs which were not originally contemplated in the original estimate. These include determining that replacing the outfall in the original location was nearly

Monday, June 24, 2019

Rpt: Rpt Suppl Regular

Supplemental Budget Request

Status: Pending

Public Works

Stormwater

Suppl ID # 2744 Fund 16925 Cost Center 925901801 Originator: Kraig Olason

impossible due to lack of room between the two adjacent houses and excessive permitting hurdles. A second alternative involved upsizing the current crossing at Birch Bay Drive and Point Whitehorn Road, this option was rejected due to extensive underground utilities. The final option, discharging to the beaver pond east of Point Whitehorn Road, is currently a highly eroded channel and required a new outfall conveyance system. This required significant effort to arrive at an acceptable outfall considering the permit implications and archaeological reviews required. The final system design includes accommodating the Birch Bay Water and Sewer District's connection of nearly 20 single family homes, installing the new drain line in a very congested and narrow ROW with extensive existing utilities to coordinate with and subsequent additions to design efforts and total project costs.

3a. Options / Advantages:

The project was initiated as an emergency fix when an existing metal outfall culvert to Birch Bay failed causing a landslide and safety concern for the two houses adjacent to the slide. The initial plan considered was to replace the outfall in place. Upon further analysis, which included extremely limited work area between the two existing houses and potential difficulty with obtaining permits, the marine outfall was abandoned. The existing conveyance system along the Southside of Birch Bay Drive was determined to be marginally functional and lacking the capacity to convey the stormwater now exiting via the damaged marine outfall. In addition, the existing stormwater conveyance system does not collect surface flows resulting in sheet flow across Birch Bay Drive to the highly unstable marine bluff.

The system as designed will intercept sheet flow and provide for residential downspout connections to greatly reduce any stormwater impacts to the sensitive marine bluff.

3b. Cost savings:

Cost savings are related to risk avoidance by mitigating the impact for surface stormwater flows to marine bluffs and subsequent damaging resulting to public and private properties from surface flow based slides,

4a. Outcomes:

The new stormwater conveyance system will consist of approximately 3,000 feet of storm drains and over 30 catch basins. The system is designed to contain a 100 year storm event and includes an outfall design that meets water quality requirements and includes a dissipation tee and rock dispersion pad that discharges into the beaver pond. The project will begin in early September and will be completed by November of this year (2019).

4b. Measures:

At the conclusion of the construction a record drawing will be produced which will provide detailed locations for all installed components. Monitoring through the winter rainy season will confirm that the project was adequately designed and installed.

5a. Other Departments/Agencies:

The project will increase the number of catch basins in the project area. This will increase time required for inspections and will require maintenance as needed. Staff from Stormwater and Maintenance and Operations will be involved in this increased workload.

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

WC Public Works Maintenance and Operations NPDES crew leader Vernon Brown will be in charge implementing any required maintenance on the new system.

6. Funding Source:

The additional funding requested is from 169250 - Birch Bay Sub-Flood Zone.