

# Whatcom County

## Lake Whatcom Stormwater Utility



## LWSU Fee Implementation Report

DRAFT

May 2019

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# Section I. INTRODUCTION

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## Lake Whatcom Management Program

The Lake Whatcom watershed is in Whatcom County in the northwest corner of Washington State. The Watershed is a major source of drinking water for residents and provides a place to live for a variety of animals, fish and humans alike.

Lake Whatcom's water quality has deteriorated as a result of excessive phosphorus entering the lake from residential development, logging, airborne deposition, and natural processes. This phosphorus loading has contributed to algae blooms and dissolved oxygen deficits, causing problems for the water supply system, aquatic biota, and recreational users of the lake.

The City of Bellingham, Whatcom County, and the Lake Whatcom Water and Sewer District came together in 1998 to formalize, by interlocal agreement, the Lake Whatcom Management Program (LWMP). The goal of this program is to improve lake water quality by jointly implementing programs affecting the Lake Whatcom watershed. These programs include land preservation, stormwater management, land use management, hazardous material response, education and engagement, and many more.

The City of Bellingham's stormwater utility and Lake Whatcom Watershed Land Acquisition and Preservation Program contributes resources towards this program. County funding for their portion of the LWMP comes from a variety of sources, including Flood Control Zone District Tax (FCZD or Flood Tax), Real Estate Excise Tax (REET), County Road Tax, and grants when available.

## TMDL Requirements Create Additional Funding Need

In April of 2016, the U.S. Environmental Protection Agency (EPA) and Washington State Department of Ecology (DOE) approved a water quality improvement plan for the Lake Whatcom watershed, which intends to limit the total phosphorus and bacteria TMDL (total maximum daily load) entering the lake in compliance with the federal Clean Water Act.

To quote the adopted plan, "During development of this TMDL, Ecology (DOE) found that if runoff is reduced to match forested conditions in 87% of the current developed area, the remaining 13% of that developed area can continue to discharge stormwater as it does now. This does not mean that 87% of the developed area must be converted to forest. Rather, it means that the runoff from that land must be managed so that the effect on the lake is the same as if the runoff came from a forest."

In response to this new requirement, the City of Bellingham and Whatcom County submitted a letter to the DOE (dated October 20, 2016), proposing a 50-year implementation timeline with an associated \$100 million budget (2016 dollars; assumed to be \$50 million per jurisdiction).

The City's stormwater utility and Lake Whatcom Watershed Land Acquisition and Preservation Program is responsible for generating resources to implement the City's portion of this plan. However, the County's share of the implementation cost cannot be covered by the existing funding sources previously mentioned (FCZD / Flood Tax, REET, County Road Tax, and or grants).

## Lake Whatcom Stormwater Utility Formation & Service Area

### Formation & Purpose

In December 2017, the Whatcom County Council established the Lake Whatcom Stormwater Utility Service Area (LWSU), via Ordinance 2017-076, under the authority of RCW 36.89.

The purpose of the new stormwater utility is to provide additional funding for efforts to clean up and protect Lake Whatcom water quality. As previously stated, existing funding sources are not enough to meet current and future Lake Whatcom program needs, in order to comply with state-mandated reductions in phosphorus. **Exhibit 1** shows the County’s total estimated LWMP cost per year, the amount already funded from existing sources, and the amount needed from the Lake Whatcom Stormwater Utility fee (\$817,600).

**Exhibit 1. County’s LWMP Cost and Funding Sources**

Description	Total LWMP Program Cost	Funded by FZCD, REET, Road Tax, Grants	Needs to be Funded by Lake Whatcom Stormwater Fee
Capital Construction	\$ 1,000,000	\$ 750,000	\$ 250,000
Capital Maintenance	180,300	-	180,300
Stormwater Program	1,269,930	1,127,630	142,300
NPDES Program	273,750	273,750	-
NPDES O&M	187,076	187,076	-
Aquatic Invasive Species	132,000	132,000	-
Homeowners Incentive Program	300,000	100,000	200,000
Monitoring	45,000	-	45,000
<b>Total</b>	<b>\$ 3,388,056</b>	<b>\$ 2,570,456</b>	<b>\$ 817,600</b>

### Funding Study

Whatcom County Public Works and FCS GROUP conducted a funding study to evaluate stormwater fee structure options for the new stormwater utility service area from June 2018 to March 2019. Stakeholder input and recommendations were provided through a citizen advisory committee. Interested members of the public attended advisory committee meetings and provided comments to the committee for consideration.

### Advisory Committee

The aforementioned citizen advisory committee was selected by the Whatcom County Council on May 8, 2018. The purpose of the committee was to represent rate payers in the Lake Whatcom Stormwater Utility Service Area and advise Whatcom County Public Works staff and the Whatcom County Council on a recommended stormwater fee structure. The committee provided their final recommendations on March 20, 2019.

### Service Area

The LWSU service area includes the entire unincorporated Lake Whatcom watershed (outside city limits), as shown in the map in the appendix to this report.

## Section II. FEE METHODOLOGY

### Rational Nexus Between Service Cost / Benefit and Fee

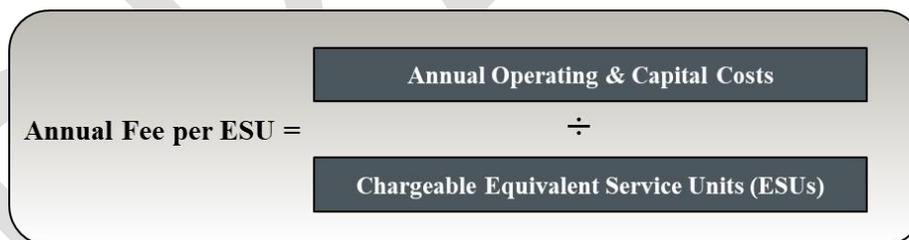
A fee may be found legally valid if the services that it funds generally benefit those who pay it – a property-specific link between fees paid and level of service received is generally not required. Case law in Washington, notably *Teter v. Clark County*, has supported the stance that an indirect linkage is adequate justification for a fee. Throughout the United States, impervious surface area is a widely accepted measure of runoff contribution, providing the basis for fees in most stormwater utilities. In support of this methodology, the 2016 TMDL report noted that, “The simplest way to meet the phosphorus reduction goal [for the Lake Whatcom Watershed] is through full infiltration of runoff.”

An impervious surface area-based fee structure was recommended by FCS GROUP and County staff, and ultimately was the committee recommended structure as well.

### General Fee Methodology

The proposed LWSU stormwater fee would be assessed annually, therefore the fee itself will be expressed as an annual fee. Two key pieces of information are needed in order to calculate the annual fee, as shown in **Exhibit 2: Annual Operating & Capital Costs and Chargeable Equivalent Service Units (ESUs)**. ESUs are used to equitably scale up the fee for non-single family parcels and are based on impervious surface area.

**Exhibit 2. LWSU Fee Methodology**


$$\text{Annual Fee per ESU} = \frac{\text{Annual Operating \& Capital Costs}}{\text{Chargeable Equivalent Service Units (ESUs)}}$$

### Annual Operating & Capital Costs

The annual operating and capital costs for the LWSU are initially estimated to be \$817,600. This number was provided by County staff, based on the program elements shown in **Exhibit 3**. Activities to be funded include capital construction and maintenance, outreach and education, the Homeowner’s Incentive Program (HIP), monitoring, and administrative costs.

In addition to these program elements, an additional \$79,000 per year is necessary in order to fund the County’s share of the LWMP’s operating reserve, over a ten-year period.

The combined operating, capital, and reserve components total \$896,600 per year. It is expected that these cost components will increase over time, due to anticipated operating and construction cost escalation.

**Exhibit 3. Estimated Annual Financial Obligations**

Program Element	Annual Cost to be Funded from LWSU Fee
Capital Construction (Supplemental funding)	\$ 250,000
Capital Maintenance	180,300
Enhanced Outreach & Education	68,000
Homeowners Incentive Program (HIP)	200,000
Monitoring	45,000
Administrative Costs	74,300
Total Operating and Capital Costs	\$ 817,600
Plus: Reserve Component	79,000
<b>Total Annual Financial Obligations for the LWSU</b>	<b>\$ 896,600</b>

Chargeable Equivalent Service Units (ESUs)

Based on an analysis of single family and all other developed (non-single family) parcels, it is estimated that there are 5,784 chargeable ESUs in the utility service area, as shown in the table in **Exhibit 4.**

**Exhibit 4. ESUs by Customer Type**

Customer Type	ESUs
Single Family Parcels	5,171
Non-Single Family Parcels	613
<b>Total</b>	<b>5,784</b>

Annual Fee per ESU

Based on the annual cost estimate of \$896,600 and a customer base of 5,784, the annual fee per ESU would be \$155.01. This result does not consider a phase-in period, nor does it consider anticipated annual cost escalation. These items are addressed in subsequent sections.

**Exhibit 5. Annual Fee per ESU**

$$\begin{array}{c}
 \text{\$151.01 per} \\
 \text{ESU per Year} \\
 = \\
 \text{\$896,600} \\
 \div \\
 \text{5,784 ESUs}
 \end{array}$$

## Forecasting the Fee Schedule

The impact of the phase-in period would result in an annual ESU fee of \$77.51 in 2020 and \$155.01 in 2021 as shown in **Exhibit 6**.

### Phase-in Period

While we would not generally recommend phasing up to fees at these projected levels, concerns expressed for (1) non-single family customers and (2) the ability of the County to meet proposed service levels in Year 1, lead us to recommend a 2-year phase-in of the proposed fees. The resulting fees would be 50% for 2020 and 100% 2021.

### Annual Fee Escalation

We recommended incorporating an annual fee escalation clause, in order to allow the fee to increase at roughly the same pace as costs increase. The committee recommended that this escalation be based on the ‘cost of living adjustment’ each year. The national Cost of Living Adjustment (COLA) index generated by the Social Security Administration of the United States bases its index, in part, on the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

There is not a readily accessible, regional COLA index that we are aware of, but there is a Seattle Tacoma Bellevue CPI-W index that we recommend for the annual escalation adjustment. Based on the recent regional CPI-W index, we estimate that an increase of 2% per year would be adequate for planning purposes. Actual adjustments should be based on the reported CPI-W each year.

We assume that both the reserve component and the operating and capital component would escalate each year. Since the reserve component is based on a portion of operating costs (~33%), it would follow that it should increase as operating costs increase.

**Exhibit 6. Fee Schedule Forecast**

Fee Schedule		Year 1	Year 2	Year 3*	Year 4*	Year 5*
Five-Year Forecast		2020	2021	2022	2023	2024
<u>Fee per ESU with CPI-W</u>						
Annual CPI-W Estimate				2.0%	2.0%	2.0%
Reserve Funding		\$13.66	\$13.66	\$13.93	\$14.21	\$14.49
Operating & Capital		\$141.35	\$141.35	\$144.18	\$147.06	\$150.01
Fee per ESU		\$155.01	\$155.01	\$158.11	\$161.27	\$164.50
<u>Fee per ESU with Phase-in Strategy</u>						
Phase-in		50%	100%	100%	100%	100%
Reserve Funding		\$6.83	\$13.66	\$13.93	\$14.21	\$14.49
Operating & Capital		\$70.68	\$141.35	\$144.18	\$147.06	\$150.01
<b>Fee per ESU</b>		<b>\$77.51</b>	<b>\$155.01</b>	<b>\$158.11</b>	<b>\$161.27</b>	<b>\$164.50</b>
<u>Single Family Fee Schedule</u>						
	ESU					
Small Footprint	0.75	\$58.13	\$116.26	\$118.58	\$120.96	\$123.37
Medium Footprint	1.00	\$77.51	\$155.01	\$158.11	\$161.27	\$164.50
Large Footprint	2.00	\$155.01	\$310.02	\$316.22	\$322.55	\$329.00

\*CPI-W adjustments should be based on actual results.

## Single Family Parcels

Most regional stormwater utilities charge single family parcels uniformly. The LWSU advisory committee was interested in adding some additional resolution to the traditional approach in large parts due to the residential character of the watershed and the variety of the residential development patterns. The following single family fee tiers are recommended: Small impervious footprint, Medium impervious footprint, and Large impervious footprint.

### Initial Parcel Grouping for Single Family

Because it was not feasible to measure impervious area on all single family parcels (tree canopy obstruction, too numerous and costly to field check), single family parcels are initially assigned one of two fees correlated with parcel size:

- Parcels less than or equal to two acres are initially charged the Medium impervious footprint fee;
- Parcels greater than two acres are initially charged the Large impervious footprint fee.

Based on impervious measurements from approximately 150 randomly selected single family parcels from each group (approximately 300 in total), the average Large lot had significantly more impervious area than the average Medium lot. This is the primary justification for assessing a higher fee for Large lots. The fee assigned to the Small tier is meant to recognize the assumed reduced impact these parcels have on the stormwater system, while further acknowledging that most program costs are fixed.

### Annual Fees

Depending on the estimated impervious area for a given parcel, there are three potential annual fees:

- Small footprint parcels are assigned 0.75 ESU: \$58.13 in 2020 and \$116.26 in 2021;
- Medium footprint parcels are assigned 1.00 ESU: \$77.51 in 2020 and \$155.01 in 2021; or
- Large footprint parcels are assigned 2.00 ESUs: \$155.01 in 2020 and \$310.02 in 2021.

### Single Family Parcel Placement When Impervious Data is Available

When actual impervious area is available, whether from additional measuring by the County or because of the appeals process, we recommend the following impervious thresholds for parcels.

**Exhibit 7. Single Family Parcels: Impervious Thresholds**

Impervious Tier Threshold	Notes
Small footprint: <2,500 impervious square feet	Any parcel owner that can demonstrate an impervious footprint of less than 2,500 square feet would warrant this reduced rate.
Medium footprint: 2,500 to 8,400 impervious square feet	Any developed single family parcels <=2 acres are initially charged the medium footprint rate. *
Large footprint: > 8,400 impervious square feet	Any developed single family parcels >2 acres are initially charged the large footprint rate. *

\* If a parcel's footprint designation (small, medium, large) is in error, based on the actual measured impervious footprint, as demonstrated to the satisfaction of County staff, a parcel may be allowed to move to a different category. For example, if a parcel owner is initially placed in the large footprint category and can demonstrate that they actually have a medium footprint, they would be placed in the medium footprint category.

## Non-Single Family Parcels

### Annual Fees

Every 4,200 square feet of impervious area for non-single family parcels is equal to one 1.00 ESU and would be charged \$77.51 in 2020 and \$155.01 in 2021 (per ESU).

### Defining the Equivalent Service Unit through Impervious Measurements

Given the diversity that exists among non-single family properties, all non-single family parcels in the service area are to be charged based on measured impervious surface area, initially based on a 2016 aerial photograph of each parcel.

Based on sampling data specific to the LWSU service area, the average single family parcel has approximately 4,200 impervious square feet. Therefore, every 4,200 square feet of impervious area for non-single family parcels is equal to one (1) equivalent service unit.

### Calculating the ESU for Individual Customers

We recommend the following policies when calculating fees for individual non-single family parcels:

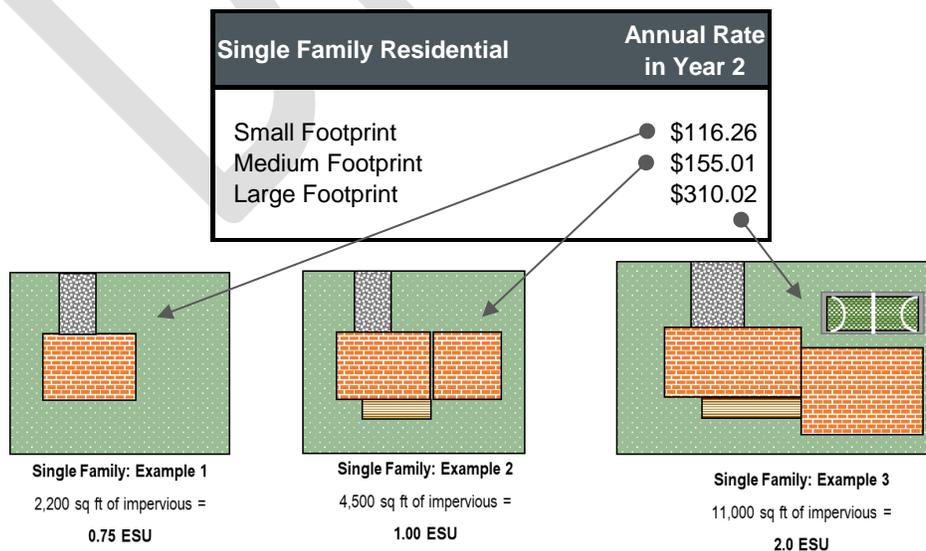
- **Minimum of 1.00 ESU:** We recommend charging each developed non-single family parcel 1.00 ESU, even if the resulting calculation is less than 1.00 ESU.
- **Round to the nearest whole ESU:** ESU calculations should be rounded to the nearest whole ESU. One reason to round to the nearest ESU is because impervious area is a fairly inexact measure of contribution of runoff, unlike a water meter for a water utility, for example.

## Sample Bills

### Single Family Residential

Depending on which tier a single family parcel would fall within, the parcel would be charged one of three fees, summarized in **Exhibit 8**. Some hypothetical visual examples are also provided below.

**Exhibit 8. Single Family Sample Bills in 2021 (Year 2)**



Non-Single Family

As described previously, bills for all other developed (non-single family) parcels would be variable, based on the measured impervious area per parcel.

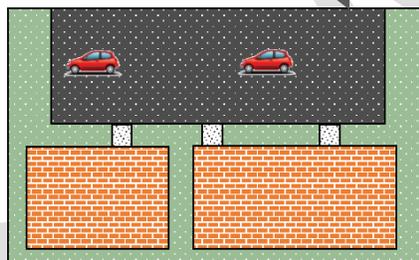
The minimum charge would be one ESU (non-SFR would not qualify for the Small footprint tier), and calculations would be rounded to the nearest whole ESU. Based on various amounts of impervious area, **Exhibit 9** shows the resulting fees for a number of hypothetical parcels.

**Exhibit 9** also shows an example parcel with 25,000 impervious square feet. To calculate the fee, the impervious area is divided by the ESU value of 4,200 impervious square feet, resulting in 5.95 ESUs. That is then rounded to the nearest whole ESU — 6 ESUs. With an ESU rate of \$155.01 in 2021 (Year 2 of the program), that parcel’s annual fee would be \$930.07.

**Exhibit 9. Non-Single Family Sample Bills in 2021 (Year 2)**

Impervious Square Feet	ESUs	Annual Rate	Impervious Square Feet	ESUs	Annual Rate
2,500	1.0	\$155.01	50,000	12.0	\$1,860.12
5,000	1.0	\$155.01	100,000	24.0	\$3,720.24
10,000	2.0	\$310.02	200,000	48.0	\$7,440.48
25,000	6.0	\$930.06	250,000	60.0	\$9,300.60

*\*Assumes \$155.01 per ESU*



**Non-Single Family**  
 25,000 sq ft of impervious ÷ 4,200 per ESU  
 5.95 ESUs → 6.00 ESUs

Fee Exemptions & Reductions

Exemptions

There are several proposed fee exemptions, including the following:

- Forestland or timberland as defined by RCW 36.89.080: (3) – Required by State law.
  - » Rates and charges authorized under this section may not be imposed on lands taxed as forestland under chapter 84.33 RCW or as timberland under chapter 84.34 RCW.
- Senior or Disabled low-income parcel owners – Not required but allowed by State law.
  - » The senior/disabled exemption is recommended to be consistent with County policy and other impervious surface-based fees within the County (i.e., BBWARM).
- Private and public roads.
  - » The EPA defines stormwater systems to include public streets, which are used to convey runoff. Private streets are subject to similar development standards in the Watershed. In addition, the County Road Fund directly pays into the Stormwater Fund to address county road impacts on stormwater.

Parcels and / or impervious area related to any of these categories have been excluded from the chargeable ESU customer total in **Exhibit 4**.

### Fee Reduction for Commercial Rainwater Harvesting Systems

Under RCW 35.67.020 (3), State law requires that stormwater fees be reduced by a minimum of ten percent for any new or remodeled commercial building that utilizes a permissive rainwater harvesting system. Rainwater harvesting systems shall be properly sized to utilize the available roof surface of the building. The jurisdiction shall consider rate reductions in excess of ten percent dependent upon the amount of rainwater harvested.

We do not recommend a reduction of greater than ten percent.

### Fee Appeals Process

Many authorizing ordinances contain language providing for fee appeals. Most contain the following or similar terms. If the property owner or person responsible for paying for the stormwater fee believes that an assigned fee is incorrect, such a person may request in writing that the fee be recomputed. However, filing of such a request does not extend the period for payment of the charge. Such requests shall be made within a specified time period, such as thirty days of the mailing of the billing in question. The property owner would have the burden of proving that the service charge adjustment should be granted.

Decisions on requests for fee adjustment would be made by the Public Works Director or his/her designee on information submitted by the applicant and by the Public Works Department within a specified time period, such as sixty days of the adjustment request, except when additional information is needed. The applicant would be notified in writing of the manager's decision. If the applicant's request is denied by the director, the customer would be able to submit an appeal of the denial of the first appeal in writing to the Hearing Examiner. The Hearing Examiner would review appeals and base his/her decision on information provided by the customer and by Public Works staff or may review the property directly, in person. The Hearing Examiner's decision would be final.

If an adjustment is granted which reduces the service charge for the current year, the applicant would be refunded the amount overpaid in the current year. If the Public Works Director finds that a service charge bill has been undercharged, then either an amended bill would be issued which reflects the increase in service charge or the undercharged amount would be added to the next year's bill.

# Section III. CAPITAL FACILITIES CHARGE

## Introduction

Capital facilities charges (CFCs) are one-time fees, paid at the time of development, intended to recover a share of the cost of system capacity needed to serve growth. They serve two primary purposes: to provide equity between existing and new customers; and to provide a source of capital (equity) funding in support of system costs. The charge is an upfront charge imposed on system growth and is primarily a charge on new development, although also applicable to expansion or densification of development when such actions increase requirements for utility system capacity.

## Methodology

The basic approach to the CFC computation is a simple division of costs by customer base, as shown in **Exhibit 10**.

**Exhibit 10. General CFC Calculation Methodology**

$$\text{Capital Facilities Charge} = \frac{\text{Applicable Capital Cost}}{\text{Applicable Customer Base}}$$

- The numerator in the charge includes planned system facilities, and the charge is intended to represent a fair share of the cost of those system facilities that will serve future users, or growth.
  - » The County has committed \$50 million in capital costs over 50 years to comply with the TMDL. At this time, approximately 75% of this capital cost is assumed to be funded through REET receipts, which results in 25% of the capital cost to be funded through LWSU fees.
- The denominator includes projected system capacity in the service area.
  - » The Lake Whatcom Watershed Annual Build-out Analysis Report for 2018 indicates that there are 5,445 existing dwelling units in the unincorporated Lake Whatcom Watershed, and capacity for 1,493 more dwelling units in that area, totaling 6,938 dwelling units. For the purposes of this analysis, a dwelling unit is assumed to be equivalent to an ESU (their 2018 values are nearly identical—5,445 vs. 5,784).

**Exhibit 11. CFC Calculation**

Description	Value	Notes
Capital Costs	\$ 48,000,000	48 Years at \$1 million per year
Adjustment: REET Funding	\$ (36,000,000)	Assumes 75% REET funded; 25% rate funded:
	\$ 12,000,000	based on \$750,000 REET / \$250,000 Rate funding plan.
Total Developed / Developable Dwelling Units	6,938	2018 Lake Whatcom Watershed Buildout Analysis
Capital Facilities Charge per ESU	<b>\$1,730</b>	

\*\$48 million excludes \$2 million assumed to have been spent in 2017, 2018 to be conservative; instead of \$50 million.

## Implementation

The calculated charge of \$1,730 is the maximum allowable charge. County Council can choose to adopt a CFC that is less than this amount.

- Single family parcels that are being developed would pay a flat fee of \$1,730.
- Non-single family parcels would pay \$1,730 for every 4,200 square feet of impervious area that the development would add to the system.

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# APPENDIX A: MAP OF THE LWSU SERVICE AREA

## Lake Whatcom Stormwater Utility Service Area

