



MEMORANDUM

Rate Study Packages

CITY OF PORTLAND, BUREAU OF ENVIRONMENTAL SERVICES | **SANITARY SEWER & STORMWATER**
COMPREHENSIVE RATE STUDY

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SUBJECT: Recommended Rate Study Packages

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Introduction

The primary goals of the Sanitary Sewer & Stormwater Comprehensive Rate Study (Rate Study) are to develop rate and fee structures that recover costs from customers in a manner that maintains the fiscal health of the system, promotes cost and social equity and affordability of basic services, and considers administrative requirements. While the current approaches used by the Bureau of Environmental Services (BES or Bureau) generally align with industry standards and trends, the Rate Study developed numerous alternatives for designing sanitary sewer and stormwater user rates and system development charges (SDCs), and stormwater credits, that may better align with current local policy objectives.

The options identified in the March 2022 Preliminary Report: Sanitary Sewer & Stormwater Comprehensive Rate Study (Rate Study Report) include the following:

- **System cost allocations** – Allocations of annual rate revenue requirements between the sanitary sewer and stormwater systems reflect either the “status quo” or an updated Cost of Service (COS) framework. Specific program cost allocation changes include:
 - Portland Harbor Superfund: Adjusted the fee allocation between sanitary sewer and stormwater to match the peak flow of the combined system.
 - Low Income Assistance Program (LIAP): Cost recovery of financial assistance program from all customers, rather than residential only.
- **Sanitary sewer rate structure** – Options are the status quo structure based on volumetric charges only (except special meter charges), and an alternative structure of volumetric charges, complemented with account charges.

The Rate Study Report also presents a COS-based rate for single pass water fountains as an alternative to the current policy-based discounted charge. However, given the special policy nature of inter-Bureau charges, a preferred option is not provided.

- **Stormwater rate structure** – The Rate Study considers three separate issues related to the stormwater rate structure:
 1. Basis for charge: Options include the status quo structure in which all costs are allocated to customer classes in proportion to impervious area (IA), and three alternative cost allocation and rate structure bases: (1) Equivalent Service Units (ESUs), (2) use of Right-of-Way (ROW), and (3) IA adjusted for water quality factors.
 2. Single-family residential rate structure: Options include the status quo uniform “class average” rate structure and an alternative IA-tiered residential structure.
 3. Special customers: Options include the current (status quo) policy-based exemptions and discounts for overwater and drainage district customers, and alternative COS-based discounts.
- **SDC Asset Allocations** – Options include the status quo cost recovery of combined sewer overflow (CSO) assets through sanitary sewer SDCs only, and an alternative allocation of a portion of CSO asset value to stormwater SDCs based on the estimated composition of peak flows.
- **Sanitary Sewer SDC Structure** – Options include the status quo structure based on flow volume considerations only (as estimated by plumbing fixture units), and an alternative structure based on both volumetric and wastewater strength considerations for customer types currently included in BES’s class average extra-strength program.
- **Stormwater SDC Structure** – Options are the status quo structure that includes three service variables (IA, average daily trips, and linear feet of street frontage) and two alternative structures: (1) IA only, and (2) IA with a revised trip basis.
- **SDC Compliance Costs** – Options are the status quo exclusion of compliance costs in the SDC cost basis and a new 0.5% compliance cost component of both sanitary sewer and stormwater SDCs.

The purpose of this memorandum is to identify a preferred set of options “Package A” and an alternate set of options “Package B” from the full list of options described in the Rate Study Report. The current or “status quo” structures comprise “Package C”.

The elements of each package are summarized in Table 1 and discussed at a high-level in the following subsections. More detail on each option can be found in the Rate Study Report.

Table 1 Summary of Packages

Element	Package A “Preferred”	Package B “Alternate”	Package C “Status Quo”
System Cost Allocations	Updated COS framework	Updated COS framework	Current framework
Sanitary Sewer Rate Structure	Status Quo structure (volumetric charge only)	Status Quo structure (volumetric charge only)	Volumetric charge only
Stormwater Rate Structure: Basis for Charge	ESU – Combined Charge structure (20 percent of costs)	ESU – Regulatory & Environmental Charge structure (10 percent of costs)	IA charge only (100 percent)
Stormwater Rate Structure: Single-Family Residential Customers	4-Tiered (3 class average tiers, plus one measured)	3-Tiered (3 class average tiers only)	Uniform charge (no tiers)
Stormwater Rate Structure: Special Customers	COS-based discounts for overwater and drainage district customers	COS-based discounts for overwater and drainage district customers	Current policy provides exemption for overwater structures, 35% discount for drainage district customers
System Asset Allocations	Status quo cost recovery for CSO assets (sanitary sewer only)	Status quo cost recovery for CSO assets (sanitary sewer only)	CSO assets allocated to sanitary sewer system only
Sanitary Sewer SDC Structure	Flow and load structure	Status quo flow structure	Flow structure
Stormwater SDC Structure	IA only structure	IA only structure	3-Part structure: IA, average daily trips, and front footage
SDC Compliance Costs	Include compliance costs	Include compliance costs	Exclude compliance costs

COS = Cost of Service, ESU = Equivalent Service Unit, IA = Impervious Area, CSO = Combined Sewer Overflow

The Rate Study Report also provides recommendations related to the stormwater credit program that focus largely on alignment with the Bureau's 2020 Stormwater Management Manual (SWMM) and BES's Strategic Plan. Furthermore, in analyzing the current maximum stormwater credit policy of 35 percent, the Rate Study provided options that ranged from 30-40 percent due to the need to balance customer control over bills with the need to provide a broad and stable funding structure for BES utility systems.¹ Finally, the Rate Study Report provide recommendations on calculation of BES's other (miscellaneous) fees and charges and Line and Branch Charges

Package A: Preferred Set of Options

Options included in the Preferred Package are those deemed most aligned with the Bureau's Rate Study objectives, including consideration of administrative requirements. While analysis of the City's Low Income Assistance Program (LIAP) is outside the scope of the Rate Study, low-income household utility service affordability is a key objective. Therefore, some potential considerations for the LIAP are also provided in the context of the recommended changes to the stormwater rate structure.

The Preferred Package elements are summarized below.

Updated COS Framework: It has been over 15 years since BES conducted a comprehensive COS study. The updated COS allocations result in moderate shifts in overall cost recovery between the sanitary sewer and stormwater systems largely due to BES's substantial investments in wet weather flow management. The updated COS results in an 8 percent increase in annual requirements attributable to the stormwater system.

Status Quo Sanitary Sewer Rate Structure: An additional account-based charge specific to sanitary sewer service would be small but administratively complex and could create confusion for customers in the context of the existing customer charges. Customers are currently charged an account charge as part of their (combined water and sewer) utility bill that recovers the costs of customer service, billing, and meter maintenance. Furthermore, special meter program costs are recovered through separate charges specific to this customer group.

Stormwater ESU – Combined Charge: As noted in the Rate Study Report, the shift in costs from sanitary sewer to stormwater under the updated COS framework results in multifamily customers paying a lower portion of BES costs². In this context, allocation of a portion of "common-to-all" stormwater costs (regulatory and environmental and all or a portion of ROW related costs) based on ESUs, improves the equity of the rate structure and balances affordability concerns among different housing types³.

¹ In this context, the extent that some customers may be more able to significantly reduce their bills through private investment in onsite stormwater controls, may shift required revenue recovery to customers with less means to fund such investments.

² As a class, multifamily represents only 10 percent of system IA, compared to 24 percent of system wastewater flow.

³ The Rate Study defines residential ESUs as: single-family detached and duplex = 1 ESU/dwelling unit, Multifamily (above 2 units) = 0.65 ESU/dwelling unit.

The Preferred Package is based on the “ESU – Combined” *structure* described in the Rate Study Report; however, initial implementation of the charge at 20 percent of stormwater revenue requirements is recommended (as opposed to the full 34 percent).⁴ Compared to the other ESU structures included in the Rate Study Report, the ESU – Combined option may best advance equity and affordability objectives, while moderating administrative complexity. The “ESU – Use of ROW” option is administratively more complex and reliance on broad categories of class average trip generation estimates may diminish equity gains from a trip-based structure⁵. While administratively like the ESU – Combined option, the Rate Study “ESU – Regulatory/Environmental” option results in more limited equity gains by excluding ROW-related stormwater management costs entirely from the ESU charge. Recovery of ROW costs on an ESU basis better aligns cost recovery with the use of ROW by individual dwelling units.

In the context of an ESU-based residential structure, the City’s LIAP could be modified to exempt qualified low-income customers from the ESU charge.

Single-Family Residential Tiered Structure: As noted in the Rate Study Report, tiered single-family rates that advance affordability objectives are increasingly common among utilities imposing impervious area charges for stormwater cost recovery. The Preferred Package includes a 3-tiered class average structure *plus* a measured category for large parcels. BES administrative requirements for charging on the basis of actual measurements should be considered in determining the threshold IA for the measured area category.

A tiered stormwater rate structure provides another opportunity for implementation of a stormwater specific LIAP component. Specifically, qualified low-income customers could be charged based on the lowest tier rate of a tiered single-family residential structure.

COS-Based Discounts for Special Customers: The Preferred Package includes COS-based rate reductions for overwater and drainage district customers. The updated COS analysis provides a framework for charging discounted rates for overwater and drainage district customers based on their specific levels of service. The discount for overwater structures is 12 percent in recognition that overwater structures benefit from upstream controls that manage water quality; however, they do not use upstream or downstream conveyance. Furthermore, their discharge points (the Willamette River and Columbia Slough) are a part of the stormwater system that the Bureau is required to manage and is the focal point of what the system is designed to protect. As direct dischargers, overwater structures may even have a greater impact on water quality (for similar types of impervious area, like rooftops) than overland customers because pollutant concentration may be higher without filtration opportunities.

A more limited rate discount of 3.4 percent was calculated for drainage district customers. However, the revised Clean River Rewards framework (another element of the Preferred

⁴ Under the ESU – Combined approach, both regulatory and environmental and ROW costs (which when combined make up 34 percent of stormwater costs) are allocated to customers in proportion to the number of ESUs. See Section 4.4.2 of Rate Study Report.

⁵ If local information becomes available in the future to support development of class average trip rates for subgroups of nonresidential customers (similar to the Bureau’s class average extra-strength program), an ESU-ROW structure should be considered.

Package) provides an opportunity for all stormwater customers to qualify for stormwater credits (up to 35 percent of stormwater charges) for meeting Stormwater Management Manual (SWMM) requirements specific to their circumstances (i.e., water quality only for overwater customers.)

Status Quo Cost Recovery for CSO Assets in the SDC: The Bureau currently includes eligible CSO asset values in the sanitary sewer SDC cost basis. This practice is consistent with BES’s capital planning basis for these assets and therefore aligns well with SDC statutes and administrative requirements.

Wastewater Flow and Strength Load SDC Structure: Inclusion of a wastewater strength loading factor increases SDC program complexity; however, BES has already developed local data to support assumed wastewater pollutant concentrations that has been incorporated into the Rate Study SDC structure. Inclusion of a loading component is consistent with equity and affordability objectives, as it reduces the SDC for residential customers relative to the flow only option.

As it further relates to equity and affordability among residential development, BES should also consider re-evaluating middle housing (structures with 2-6 units) and higher density apartment flow factors and possibly tiered SDCs by house size in the future.

Stormwater IA Only SDC Structure: As noted in the Rate Study Report, the IA only structure is the most common method for assessing stormwater SDCs. The status quo option is administratively complex and difficult for customers to understand given its multiple charge bases.

Inclusion of SDC Compliance Costs: Under Oregon law SDC revenues may be spent on the costs of complying with requirements of the statutes. Inclusion of a compliance cost component in the SDCs allows for other components of the charge to fund system capital costs more fully.

Package B: Alternate Set of Options

Package B is the same as Package A, with the following modifications aimed at enhancing administrative ease and reducing rate impacts for some stormwater customers:

- **“ESU – Regulatory/Environmental” Charge:** Based on the same structure of the Preferred Package but reduces cost recovery from ESU charge to 10 percent to reduce impacts on multifamily customers.
- **Single-Family Residential Tiered Structure:** 3-tiered class average structure *without* a measured category for large parcels to reduce BES administrative requirements.
- **Status Quo Sanitary Sewer SDC Structure:** A flow only based sanitary sewer SDC structure is the most common and straightforward to administer and communicate to customers.

Package C: Status Quo

Package C includes the current rate and fee practices as described in Table 1 and the Rate Study Report.

Table 2 presents the sanitary sewer and stormwater rates for each rate structure element and package. Sanitary sewer rates are the same for Packages A and B. For stormwater ESU rates, each multifamily unit is charged 0.65 ESUs and commercial ESUs are determined based on measured IA divided by 2,400 SQ FT. Stormwater rates are prior to any discounts provided through Clean River Rewards.

Table 1 Rate Packages

Customer Class and Rate Component	Package A "Preferred"	Package B "Alternate"	Package C "Status Quo" ¹
Sanitary Sewer Rates			
<i>Volume Rates (\$/CCF)</i>			
Residential	\$ 11.11	\$ 11.11	\$ 11.92
Commercial	11.360	11.360	11.723
<i>Extra-Strength Rates (\$/LB)</i>			
BOD	0.736	0.736	0.90
TSS	0.817	0.817	1.206
<i>Special Customer Rates</i>			
Public Owned Drinking Fountain or Single-Pass Water Fountain (\$/CCF)	8.742	8.742	0.001
Special Meter Charge (\$/Bill)	16.80	16.80	50.00
PHS Sanitary Charge (\$/CCF)	0.06	0.06	0.13
Stormwater Rates			
Regular Customers			
<i>Residential</i>			
\$/KSF IA	\$10.97	\$12.32	\$12.68
\$/ESU	6.06	3.06	--
<i>Multifamily</i>			
\$/KSF IA	10.97	12.32	12.68
\$/ESU	6.06	3.06	--
<i>Commercial</i>			
\$/KSF IA	\$ 11.13	\$ 12.48	\$ 13.10
\$/ESU	6.06	3.06	--
Drainage District²			
<i>Residential</i>			
\$/KSF IA	10.43	11.78	8.24
\$/ESU	6.06	3.06	--
<i>Multifamily</i>			
\$/KSF IA	10.43	11.78	8.24
\$/ESU	6.06	3.06	--

Customer Class and Rate Component	Package A "Preferred"	Package B "Alternate"	Package C "Status Quo"¹
<i>Commercial</i>			
\$/KSF IA	10.59	11.94	8.52
\$/ESU	6.06	3.06	--
Overwater Structures³			
<i>Multifamily</i>			
\$/KSF IA	9.25	10.60	--
\$/ESU	6.06	3.06	--
<i>Commercial</i>			
\$/KSF IA	9.41	10.76	--
\$/ESU	6.06	3.06	--
PHS (\$/KSF)	0.54	0.54	0.34
Clean-to-Storm (\$/CCF)	1.371	1.371	1.200

¹Adopted July 1, 2021; includes both onsite and offsite components.

²Current rates are 65 percent of regular stormwater rates. Rates are prior to any discounts that would be available to eligible customers through the Clean River Rewards program.

³Customers have not been charged since 2019 pending completion of the Rate Study.