

City of Gladstone

STORMWATER SYSTEM DEVELOPMENT CHARGE METHODOLOGY REPORT

FINAL REPORT
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Section I. INTRODUCTION

This section describes the policy context and project scope upon which the body of this report is based.

I.A. SYSTEM DEVELOPMENT CHARGES

Oregon Revised Statutes (ORS) 223.297 to 223.314 authorize local governments to establish system development charges (SDCs), one-time fees on new development paid at the time of development. SDCs are intended to recover a fair share of the cost of existing and planned facilities that provide capacity to serve future growth.

ORS 223.299 defines two types of SDCs:

- A reimbursement fee designed to recover “costs associated with capital improvements already constructed, or under construction when the fee is established, for which the local government determines that capacity exists”
- An improvement fee designed to recover “costs associated with capital improvements to be constructed”

ORS 223.304(1) states, in part, that a reimbursement fee must be based on “the value of unused capacity available to future system users or the cost of existing facilities” and must account for prior contributions by existing users and any gifted or grant-funded facilities. The calculation must “promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities.” A reimbursement fee may be spent on any capital improvement related to the system for which it is being charged (whether cash-financed or debt-financed) and on the costs of compliance with Oregon’s SDC law.

ORS 223.304(2) states, in part, that an improvement fee must be calculated to include only the cost of projected capital improvements needed to increase system capacity for future users. In other words, the cost of planned projects that correct existing deficiencies or do not otherwise increase capacity for future users may not be included in the improvement fee calculation. An improvement fee may be spent only on capital improvements (or portions thereof) that increase the capacity of the system for which it is being charged (whether cash-financed or debt-financed) and on the costs of compliance with Oregon’s SDC law.

I.B. UPDATING THE STORMWATER SDC

The City of Gladstone (City) contracted with FCS Group to perform an SDC update. We conducted the study using the following general approach:

- **Policy Framework for Charges.** In this step, we worked with City staff to identify and agree on the approach to be used and the components to be included in the analysis.
- **Technical Analysis.** In this step, we worked with City staff and Brown & Caldwell to isolate the recoverable portion of facility costs and calculate SDC rates.
- **Methodology Report Preparation.** In this step, we documented the calculation of the SDC rates included in this report.

I.C. CALCULATION OVERVIEW

In general, SDCs are calculated by adding a reimbursement fee component and an improvement fee component—both with potential adjustments. Each component is calculated by dividing the eligible cost by growth in units of demand. The unit of demand becomes the basis of the charge. **Table 1** shows this calculation in equation format:

Table 1. SDC Equation

Eligible costs of available capacity in existing facilities	+	Eligible costs of capacity-increasing capital improvements	+	Pro-rata share of costs of complying with Oregon SDC law	=	SDC per unit of growth in demand
Units of growth in demand		Units of growth in demand				

I.C.1. Reimbursement Fee

The reimbursement fee is the cost of available capacity per unit of growth that such available capacity will serve. In order for a reimbursement fee to be calculated, unused capacity must be available to serve future growth. For facility types that do not have available capacity, no reimbursement fee may be calculated.

Because the City is currently forming the stormwater utility and transitioning to a separation of stormwater and sewer assets, there is not available capacity. No reimbursement fee will be calculated.

I.C.2. Improvement Fee

The improvement fee is the cost of planned capacity-increasing capital projects per unit of growth that those projects will serve. The unit of growth becomes the basis of the fee. In reality, the capacity added by many projects serves a dual purpose of both meeting existing demand and serving future growth. To compute a compliant improvement fee, growth-related costs must be isolated, and costs related to current demand must be excluded.

We have used the capacity approach to allocate costs to the improvement fee basis.¹ Under this approach, the cost of a given project is allocated to growth by the portion of total project capacity

¹ Two alternatives to the capacity approach are the incremental approach and the causation approach. The incremental requires the computation of hypothetical project costs to serve existing users. Only the incremental cost of the actual project is included in the improvement fee cost basis. The causation approach, which allocates 100 percent of all growth-related projects to growth, is vulnerable to legal challenge.

that represents capacity for future users. That portion, referred to as the improvement fee eligibility percentage, is multiplied by the total project cost for inclusion in the improvement fee cost basis.

I.C.3. Compliance Costs

ORS 223.307(5) authorizes the expenditure of SDCs for “the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures.” To avoid spending monies for compliance that might otherwise have been spent on growth-related projects, this report includes an estimate of compliance costs in the SDC calculation.

Section II. SDC CALCULATIONS

This section provides the rationale and calculations supporting the proposed stormwater SDCs. As discussed previously, an SDC can include three components: a reimbursement fee, an improvement fee, and compliance cost recovery. Below we provide detailed calculations for each component of the charge.

II.A. GROWTH CALCULATION

Growth is the denominator in both the improvement and reimbursement fee calculations, measured in units that most directly reflect the source of demand. For stormwater SDCs, the most applicable and administratively feasible unit of growth is impervious surface area (ISA), measured in equivalent residential units (ERUs). As noted in the *Stormwater Utility Formation* report by FCS Group, dated November 2014, it is recommended that one ERU equal 3,000 feet of ISA.

Table 2 shows projected growth in ERUs during the planning period. The initial number of ERUs is based on the *Stormwater Utility Formation* report by FCS Group, dated November 2014. The analysis period is based on the Stormwater Master Plan which indicated a 30-year timeline from completion of the document in 2014. Growth is calculated based on the population growth rate in the City based on Metro’s Metroscope Gamma 2035 forecast.

Table 2. Stormwater Customer Base

	2014	2017	2044	Growth	CAGR
Equivalent Residential Units (ERUs)	5,763	5,810	6,254	444	0.27%

Source: Metro Metroscope Gamma 2035 Forecast and Stormwater Utility Formation, November 2014, by FCS Group.

Abbreviations: CAGR - Compound Annual Growth Rate

II.B. REIMBURSEMENT FEE COST BASIS

The reimbursement fee cost basis is the cost of capacity available in the existing system. The City has elected not to pursue a reimbursement fee because there is no identified available capacity in the existing stormwater system.

II.C. IMPROVEMENT FEE COST BASIS

The improvement fee cost basis is based on a specific list of planned capacity-increasing capital improvements. The portion of each project that can be included in the improvement fee cost basis is determined by the extent to which each project serves future users and the amount of capacity added. **Table 3** shows the total improvement fee-eligible cost basis (see **Appendix A** for a complete list of the projects and eligibility by project). The eligible portion shown in the table is a weighted average of all project allocations.

Table 3. Improvement Fee Cost Basis Summary

	Total
Total Project Costs	\$13,469,481
Total Eligible Portion	8.83%
SDC-Eligible Cost	\$1,188,868

Source: Appendix A.

II.D. COMPLIANCE COST BASIS

ORS 223.307(5) authorizes the expenditure of SDCs on “the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures.” This SDC methodology assumes three stormwater SDC updates each costing \$10,000 and a \$2,000 annual SDC fee administration expense. See **Table 4** for the total compliance cost estimate.

Table 4. Compliance Cost Estimate

	Estimate
Stormwater SDC Updates (\$10k per study, three studies)	\$30,000
SDC Fee Administration (\$2k per year)	60,000
Total	\$90,000

Source: City of Gladstone

Section III. CONCLUSION

III.A. CALCULATED SDC

Dividing the sum of the net cost bases described previously by the projected ERU growth produces the proposed stormwater SDC. **Table 5** summarizes the SDC component calculations.

Table 5. Stormwater SDC

SDC Calculation	
Improvement Fee	
Capacity Expanding CIP	\$ 1,188,868
Improvement Fee Cost Basis	\$ 1,188,868
Growth to End of Planning Period	444 ERU
Improvement Fee	\$ 2,678 per ERU
Compliance Fee	
Costs of Compliance	\$ 90,000
Growth to End of Planning Period	444 ERU
Compliance	\$ 203 per ERU
Total System Development Charge	
Improvement Fee	\$ 2,678 per ERU
Compliance Fee	\$ 203 per ERU
Total SDC	\$ 2,881 per ERU

Source: Previous tables.

III.B. CREDITS, EXEMPTIONS, AND WAIVERS

The City will continue to establish local policies for issuing credits, exemptions, and other administrative procedures.

III.B.1. Credits

A credit is a reduction in the amount of the SDC for a specific development. ORS 223.304 requires that SDC credits be issued for the construction of a qualified public improvement which is: required as a condition of development approval; identified in the City’s adopted SDC project list; and either “not located on or contiguous to property that is the subject of development approval,” or located “on or contiguous to such property and is required to be built larger or with greater capacity than is necessary for the particular development project....”

Additionally, a credit must be granted “only for the cost of that portion of an improvement which exceeds the minimum standard facility size or capacity needed to serve” the particular project up to the amount of the improvement fee. For multi-phase projects, any “excess credit may be applied against SDCs that accrue in subsequent phases of the original development project.”

III.B.2. Exemptions & Waivers

The City may exempt or waive specific classifications of development from the requirement to pay stormwater SDCs. However, to do so it must have a cost or demand-based justification. The City may not arbitrarily exempt customers or customer types from SDCs.

III.C. INDEXING

Oregon law (ORS 223.304) also allows for the periodic indexing of system development charges for inflation, as long as the index used is:

- “(A) A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property or a combination of the three;
- (B) Published by a recognized organization or agency that produces the index or data source for reasons that are independent of the system development charge methodology; and
- (C) Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order.”

We recommend that the City index its charges to the Engineering News Record Construction Cost Index for the City of Seattle and adjust its charges annually. Further, we recommend the City automatically index the fee annually to ensure the purchasing power of the SDC remains intact year after year.

III.D. FEE BASIS

The stormwater SDC is based on the number of ERUs on a property. As noted above, an ERU is measured as 3,000 square feet of impervious surface area. For administrative ease, we recommend that single family households are charged one ERU regardless of the amount of ISA on the property.

Table 6 shows the SDC by component. The total is multiplied by the number of ERUs on a property to derive the total SDC obligation.

Table 6. Stormwater SDC by Fee Component

	Improvement Fee	Compliance Fee	Total
Stormwater SDC	\$2,678	\$203	\$2,881

Source: Previous tables.

APPENDIX A – IMPROVEMENT FEE PROJECT LIST

Project #	Name	2014 Cost Estimate	2017 Cost Estimate	Project Timing	City Share of Costs Eligible for SDC	SDC-Eligible %	SDC-Eligible Costs
A-1	Rinearson Creek Stream Enhancement	\$410,000	\$425,888	Years 0-5	100%	0.00%	\$0
A-2	Portland Avenue Bypass and Upstream Improvements						
A-2.1	Portland Avenue High Flow Bypass	\$3,773,000	\$3,919,207	Years 10-15	100%	10.67%	\$418,342
A-2.2	Sanitary Sewer Disconnection	\$78,000	\$81,023	Years 0-5	100%	0.00%	\$0
A-2.3	Portland Avenue Pipe Replacement/Realignment North of Jersey	\$1,336,000	\$1,387,771	Years 0-5	100%	10.67%	\$148,133
A-2.4	Duniway to Barclay Pipe Replacement/Realignment	\$607,000	\$630,522	Years 0-5	100%	10.67%	\$67,303
A-3	High School Storm Drain Improvements and Detention	\$1,840,000	\$1,911,301	Years 10-15	100%	9.84%	\$187,997
A-4	High School Rain Garden	\$12,000	\$12,465	Years 10-15	100%	0.00%	\$0
A-5	Tryon Rain Garden	\$220,000	\$228,525	Years 15-20	100%	0.00%	\$0
A-6	Glen Echo Pipeline Realignment	\$280,000	\$290,850	Years 15-20	100%	8.70%	\$25,291
A-7	Meldrum Bar Bioswale	\$230,000	\$238,913	Years 15-20	100%	1.53%	\$3,657
A-8	Riverdale Drainage Improvements	\$280,000	\$290,850	Years 15-20	100%	0.00%	\$0
B-1	Basin B Drainage Improvements	\$270,000	\$280,463	Years 15-20	100%	0.00%	\$0
F-1	Caldwell to Hull Pipe Replacement/Realignment	\$570,000	\$592,088	Years 10-15	100%	12.28%	\$72,713
H-1	System H Channel Improvement	\$36,000	\$37,395	Years 10-15	100%	0.00%	\$0
J-1	Cornell at Landon Pipe Replacement/Realignment	\$640,000	\$664,800	Years 15-20	100%	11.88%	\$78,968
J-2	Oatfield Pipe Replacement	\$480,000	\$498,600	Years 10-15	100%	16.02%	\$79,886
M-1	Crownview Drive Pipe Replacement	\$160,000	\$166,200	Years 10-15	100%	4.35%	\$7,226
N-1	Kraxberger Middle School Bioswale and Pipe Replacement	\$940,000	\$976,426	Years 10-15	100%	5.58%	\$54,470
N-2	System N Inlet Replacement	\$140,000	\$145,425	Years 15-20	100%	0.00%	\$0
O-1	Ridgewood and Oatfield to Pond Pipe Replacement	\$650,000	\$675,188	Years 10-15	100%	6.65%	\$44,882
O-2	Church Pond Retrofit	\$15,000	\$15,581	Years 15-20	100%	0.00%	\$0
Total		\$12,967,000	\$13,469,481				\$1,188,868

Source: Gladstone Stormwater Master Plan and Brown and Caldwell.
Costs escalated to 2017 based on Engineering News Record Construction Cost Index for Seattle.