



## RESOLUTION NO. 2020-299

### A RESOLUTION UPDATING THE SEWER SYSTEM DEVELOPMENT METHODOLOGY FOR SEWER FACILITIES

**WHEREAS**, the City of Carlton adopted Ordinance 590 authorizing System Development Charges on New Development, codified as Chapter 3.12 of the Municipal Code; and

**WHEREAS**, the City of Carlton approved Resolution 2005-008-B authorizing an automatic rate CPI rate increase July 1 of each year; and

**WHEREAS**, Chapter 3.12 of the Municipal Code provides that System Development Charge methodologies may be adopted by the City Council; and

**WHEREAS**, an updated Sewer System Development Charges Methodology Report (Sewer SDC Report) has been prepared for and reviewed by the City; and

**WHEREAS**, pursuant to ORS 223.309 and Ordinance Section 3.12.060, the City must adopt a Capital Projects List of the capital improvements to be funded wholly or in part by SDCs; and

**WHEREAS**, the Capital Projects List must include the estimated costs, timing and percentage of the costs for each improvement that the City intends to fund, in whole or in part with the improvement fee revenues; and

**WHEREAS**, the City published a SDC methodology report for public review in February 8, 2020, at least 60 days prior to the first hearing on the draft methodology; and

**WHEREAS**, the City Council scheduled, noticed and held a public hearing on the new SDC rates and methodology at its regular meeting on June 2, 2020; and now, therefore;

### THE CITY OF CARLTON RESOLVES AS FOLLOWS:

1. The City of Carlton hereby adopts the Sewer System Development Methodology Report, date March 25, 2020, attached hereto as Exhibit A.
2. The SDC Project List attached hereto as exhibit B is hereby adopted as the SDC Capital Projects List. The Capital Project List may be modified at any time by separate resolution adopted by the City Council.
3. The wastewater SDCs shall be imposed based on the schedule shown as Exhibit C. As of the Effective date of this resolution. Effective July 1 of each subsequent year prusent to Resolution 2005-008-B adopted June 22, 2005 the inflationary index will be applied to then-current SDC amounts and the resulting fees imposed.
4. This resolution shall take effect on July 1 2020.



**ADOPTED** by the City Council of the City of Carlton, Oregon, on June 2, 2020, by the following votes:

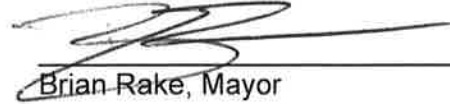
**AYES:** 7

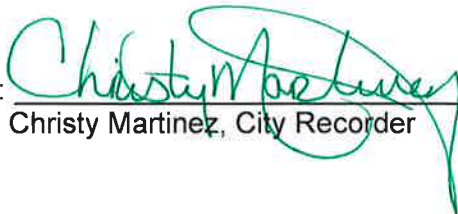
**NAYES:** 0

**ABSENT:** 0

**ABSTAIN:** 0

**APPROVED** and signed by the Mayor on June 2, 2020.

  
\_\_\_\_\_  
Brian Rake, Mayor

**ATTEST:**   
\_\_\_\_\_  
Christy Martinez, City Recorder



## Exhibit B

Wastewater SDC Capital Project List-

Source: City of Carlton Wastewater Facilities Plan (2018)

PROJECT	Estimated Time	Cost	SDC Portion	
	Period		%	\$
<b>Collection System Improvement Costs</b>				
A, 16-inch trunk main	2027	\$710,000	26%	\$187,715
B, 8-inch pipe in Yamhill St and W. Garfield St.	2030	\$270,000	26%	\$71,384
C, 10-inch trunk main in Grant Street	2030	\$500,000	26%	\$132,193
D, 10-inch and 1,190 feet of 8-inch pipe in East Main St	2032	\$680,000	26%	\$179,783
E, Main Street 6-inch, 8-inch, and 10-inch pipe	2020	\$840,000	26%	\$222,085
F, 6-inch and 8-inch pipe in South Pine and South Park St	2035	\$750,000	26%	\$198,290
G, 6-inch and 8-inch pipe in Kutch Street and vicinity	2036	\$700,000	26%	\$185,071
H, 6-inch pipe in West Jefferson Street, West Johnson Street and vicinity	2037	\$440,000	26%	\$116,330
I, 6-inch and 8-inch pipe in East Monroe Street and vicinity	2038	\$790,000	26%	\$208,866
J, replace clay pipe between manholes B5, B6 & A1, WWTP	2024	\$50,000	26%	\$13,219
K, Hawn Creek Pump Station Upgrade	2024	\$685,433	76%	\$522,766
<b>Treatment Facility Costs</b>				
L, Headworks Upgrade	2027	\$640,000	10%	\$62,745
M, Lagoon Aeration Imp - Phase 1	2022	\$430,000	25%	\$105,738
N, Lagoon Capacity Improvements - Raise Dikes	2022	\$620,000	32%	\$199,778
O, Lagoon Piping Improvements	2022	\$410,000	17%	\$68,333
P, Lagoon Disinfection Improvements	2022	\$230,000	17%	\$38,333
Q, Miscellaneous Plant Improvements	2027	\$440,000	26%	\$116,330
R, Raise Access Rd	2027	\$400,000	0%	\$0
S, Effluent Pump Station	2022	\$800,000	17%	\$133,333
T, Effluent Force Main and River Outfall	2022	\$810,000	17%	\$135,000
U, Irrigation Piping and Equipment	2022	\$590,000	33%	\$193,443
V, 1A, Biosolids Management Plan		\$20,000	0%	\$0
W, 1B, Dredging and Biosolids Land Application		\$820,000	0%	\$0
X, B, Lagoon Aeration Improvements - Phase 2	2028	\$60,000	0%	\$0
<b>Total</b>		<b>\$12,685,433</b>	<b>24%</b>	<b>\$3,090,735</b>



## Exhibit C

### Wastewater SDC Schedule

Meter Size	SDCr	SDCi	Compliance	Combined	Meter
				SDC	Equivalent <sup>1</sup>
EDU and 3/4-inch	\$1,168	\$6,661	\$203	\$8,033	1.0
1-inch	\$1,947	\$11,102	\$339	\$13,388	1.7
1 1/2-inch	\$3,895	\$22,204	\$678	\$26,776	3.3
2-inch	\$6,232	\$35,526	\$1,085	\$42,842	5.3
3-inch	\$13,632	\$77,713	\$2,373	\$93,718	11.7
4-inch	\$24,538	\$139,883	\$4,271	\$168,692	21.0
6-inch	\$50,634	\$288,647	\$8,813	\$348,094	43.3
8-inch	\$62,318	\$355,258	\$10,847	\$428,423	53.3

<sup>1</sup>AWWA Standards (Turbine Meters)





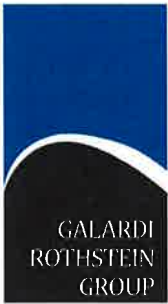
Methodology Report

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# Wastewater System Development Charges

Prepared For  
City of Carlton

March 25, 2020



# Introduction

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Oregon legislation establishes guidelines for the calculation of system development charges (SDCs). Within these guidelines, local governments have latitude in selecting technical approaches and establishing policies related to the development and administration of SDCs. A discussion of this legislation follows, along with the methodology for calculating updated sanitary sewer SDCs for the City of Carlton (the City) based on the most recent Wastewater Facilities Plan (Tetra Tech May 2018).

## SDC Legislation in Oregon

In the 1989 Oregon state legislative session, a bill was passed that created a uniform framework for the imposition of SDCs statewide. This legislation (Oregon Revised Statute [ORS] 223.297-223.314), which became effective on July 1, 1991, (with subsequent amendments), authorizes local governments to assess SDCs for the following types of capital improvements:

- Drainage and flood control
- Water supply, treatment, and distribution
- Wastewater collection, transmission, treatment, and disposal
- Transportation
- Parks and recreation

The legislation provides guidelines on the calculation and modification of SDCs, accounting requirements to track SDC revenues, and the adoption of administrative review procedures.

## SDC Structure

SDCs can be developed around two concepts: (1) a reimbursement fee, and (2) an improvement fee, or a combination of the two. The **reimbursement fee** is based on the costs of capital improvements *already constructed or under construction*. The legislation requires the reimbursement fee to be established or modified by an ordinance or resolution setting forth the methodology used to calculate the charge. This methodology must consider the cost of existing facilities, prior contributions by existing users, gifts or grants from federal or state government or private persons, the value of unused capacity available for future system users, rate-making principles employed to finance the capital improvements, and other relevant factors. The objective of the methodology must be that future system users contribute no more than an equitable share of the capital costs of *existing* facilities. Reimbursement fee revenues are restricted only to capital expenditures for the specific system with which they are assessed, including debt service.

The methodology for establishing or modifying an **improvement fee** must be specified in an ordinance or resolution that demonstrates consideration of the *projected costs of capital improvements identified in an adopted plan and list*, that are needed to increase capacity in the system to meet the demands of new development. Revenues generated through improvement fees are dedicated to capacity-increasing capital improvements or the repayment of debt on

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such improvements. An increase in capacity is established if an improvement increases the level of service provided by existing facilities or provides new facilities.

In many systems, growth needs will be met through a combination of existing available capacity and future capacity-enhancing improvements. Therefore, the law provides for a **combined fee** (reimbursement plus improvement component). However, when such a fee is developed, the methodology must demonstrate that the charge is not based on providing the same system capacity.

## **Project List**

Local governments are required to prepare a capital improvement program or comparable plan, prior to establishment of an SDC, which includes a list of the improvements that the jurisdiction intends to fund with improvement fee revenues and the estimated timing, cost, and eligible portion of each improvement. The project list may be updated at any time. If an SDC is to be increased by a proposed modification to the list then required action includes: (1) written notice provided to interested parties at least 30 days prior to adoption of the proposed modification and (2) hold a public hearing on the proposed modification if a request is received in writing up to seven days before the date of the planned adoption.

## **Credits**

A credit must be provided against the improvement fee for the construction of “qualified public improvements.” Qualified public improvements are improvements that are required as a condition of development approval, identified in the system’s capital improvement program, and either (1) not located on or contiguous to the property being developed, or (2) located in whole or in part, on or contiguous to, property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related.

## **Methodology Update and Review**

The methodology for establishing or modifying improvement or reimbursement fees must be available for public review prior to adoption. The local government must maintain a list of persons who have made a written request for notification prior to the adoption or amendment of such fees that are resultant of a methodology amendment. The requirements for any changes to the fees that represent a modification to the methodology are: (1) 90-day written notice prior to first public hearing, and (2) SDC methodology made available for review 60 days prior to the public hearing.

Application of one or more cost indices periodically is allowable and is not considered a change in the methodology, and is therefore not subject to the above review and notification procedures, provided that the index is published by a recognized agency, independent from the methodology, and incorporated into the methodology or adopted separately by ordinance or resolution. Furthermore, “a change in the costs of materials, labor, or real property as applied to projects or project capacity”<sup>1</sup> in the adopted project list are not considered modifications to the SDC methodology. As such, the local government is not required to adhere to the methodology notification provisions.

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<sup>1</sup> 2017 Oregon Revised Statutes 223.304 (8)(b)(A)

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## Other Provisions

Other provisions of the legislation require:

- Deposit of SDC revenues into dedicated accounts and annual accounting of revenues and expenditures, including a list of the amount spent on each project funded, in whole or in part, by SDC revenues.
- Expenditure of SDCs may include costs of complying with the provisions of the law, including costs of developing SDC methodologies and providing an annual accounting of SDC expenditures.
- Creation of an administrative appeals procedure, in accordance with the legislation, whereby a citizen or other interested party may challenge an expenditure of SDC revenues.

# Wastewater SDC Methodology

## Overview

The general methodology used to calculate wastewater SDCs begins with an analysis of system planning assumptions to determine growth's capacity needs, and how they will be met through existing system available capacity and capacity expansion. Then, the capacity to serve growth is valued to determine the "cost basis" for the SDCs, which is then divided by the total growth capacity units to determine the system wide unit costs of capacity. The final step is to determine the SDC schedule, which identifies how different developments will be charged, based on estimated capacity requirements.

## Planning Criteria

Table 1 summarizes the existing conditions and expected future conditions for the wastewater system from the Wastewater Facilities Plan (Facilities Plan). The primary relevant design criteria for the system include the following:

- **Peak Hour Weather Flow:** the peak flow modeled for the collection system, which includes base wastewater flow, groundwater infiltration, and rainfall derived infiltration and inflow. Peak hour flow is used to evaluate capacity needs for the wastewater treatment headworks.
- **Maximum month dry weather and wet weather flows:** the maximum month flow at the treatment plant during either the dry weather or wet weather season. These parameters are used to evaluate capacity for different wastewater treatment processes (e.g., effluent and lagoon piping, and irrigation piping and equipment).

Table 1 also shows relevant design criteria for specific facilities (lagoons and Hawn Creek Pump station) that require upgrade within the planning period (2037).

**Table 1**  
*Sewer System Planning Assumptions<sup>1</sup>*

Capacity Parameter	Current	2037	Growth	
		2037	Qty	% of future
Equivalent Residential Units <sup>2</sup>	1,291	1,755	464	26%
Peak Hour Flow (mgd)	4.60	5.10	0.5	10%
Max Month Wet Weather Flow	1.10	1.32	0.2	17%
Max Month Dry Weather Flow	0.41	0.61	0.2	33%
Lagoon Aeration	36.80	48.80	12.0	25%
Lagoon Volume	61.00	90.00	29.0	32%
Hawn Creek Pump Station (mgd)	1.7	2.3	0.6	27%

<sup>1</sup>City of Carlton Wastewater Facilities Plan

<sup>2</sup>Current based on current number of meters by meter size; future projected based on growth in population.

<sup>3</sup>Pump Station Evaluation Memo - DRAFT (Tetra Tech, February 14, 2020)

Table 1 also includes an estimate of current and future Equivalent Residential Units (ERUs). The City assesses SDCs based on the size of a development's water meter, which is an indicator of future potential wastewater flow. Therefore, the number of ERUs represent the number of meters of various sizes restated in terms of the capacity equivalency of a 5/8" X 3/4" meter which is the typical size for a residential dwelling unit.

## SDC Cost Basis

The capacity needed to serve new development will be met through a combination of existing available capacity and additional capacity added by planned improvements. The reimbursement fee is intended to recover the costs associated with the growth-related (or available) capacity in the existing system; the improvement fee is based on the costs of capacity-increasing future improvements needed to meet the demands of growth. The value of capacity needed to serve growth in aggregate within the planning period is referred to as the "cost basis".

### Reimbursement Fee Cost Basis

Table 2 shows the calculation of the reimbursement fee cost basis, which includes a portion of existing collection system trunk lines, and Yamhill and Hawn Creek pump stations. Collection system trunk line value has been discounted for the portion of pipes to be replaced by system improvements included in the improvement fee (discussed in the following section). The portion of collection system costs included in the reimbursement fee reflects growth's share of future ERUs (from Table 1).

The reimbursement fee excludes most of the current wastewater treatment assets because they are either at capacity (as in the case of the lagoons) or will be replaced by new facilities within the planning period. The Main (or Yamhill) pump station at the plant does have sufficient capacity, so a portion of costs are included in the reimbursement fee. The Hawn Creek pump station is at capacity, and improvements are planned to expand capacity for growth as discussed in the following section.

**Table 2**  
*Reimbursement Fee Cost Basis*

Description	Discounted	Original	Growth Share	
	Length <sup>1</sup>	Cost <sup>2</sup>	%	\$
<b>Collection</b>				
6-inch trunk	1,870	\$6,945	26%	\$1,836
8-inch trunk	13,734	\$35,630	26%	\$9,420
10-inch trunk	-	\$3,998	26%	\$1,057
12-inch trunk	2,505	\$7,952	26%	\$2,102
12-inch force main (PVC) Yamhill		\$1,862,098	26%	\$492,314
Subtotal		\$1,916,623		\$506,730
<b>Treatment</b>				
Main St. (Yamhill Pump Station)		\$134,032	26%	\$35,436
<b>Pumping</b>				
Hawn Creek		\$380,980	0%	\$0
<b>Total</b>		<b>\$2,431,635</b>		<b>\$542,166</b>

Source: Costs from Carlton Depreciation Schedule 2016

<sup>1</sup> Discounted by portion of pipe replaced; excludes contributed plant

<sup>2</sup> Net of grant funding

## Improvement Fee Cost Basis

Planned future capacity-increasing improvements are shown in Table 3. System capacity may be expanded through the upgrade of existing facilities or the construction of new facilities. The SDC-eligible portion of collection system improvements is based on growth's share of future ERUs. The SDC portion of each wastewater treatment plant improvement is based on growth's share of the relevant facility design criteria from Table 1.

**Table 3**  
Improvement Fee Cost Basis and SDC Project List

PROJECT	Estimated Time Period	Cost	SDC Portion	
			%	\$
<b>Collection System Improvement Costs</b>				
C1A. 16-inch trunk main	2027	\$710,000	26%	\$187,715
C1B. 8-inch pipe in Yamhill St and W. Garfield St.	2030	\$270,000	26%	\$71,384
C2. 10-inch trunk main in Grant Street	2030	\$500,000	26%	\$132,193
C3. 10-inch and 1,190 feet of 8-inch pipe in East Main St	2032	\$680,000	26%	\$179,783
C4 Main Street 6-inch, 8-inch, and 10-inch pipe	2020	\$840,000	26%	\$222,085
C5. 6-inch and 8-inch pipe in South Pine and South Park St	2035	\$750,000	26%	\$198,290
C6. 6-inch and 8-inch pipe in Kutch Street and vicinity	2036	\$700,000	26%	\$185,071
C7. 6-inch pipe in West Jefferson Street, West Johnson Street and vicinity	2037	\$440,000	26%	\$116,330
C8. 6-inch and 8-inch pipe in East Monroe Street and vicinity	2038	\$790,000	26%	\$208,866
Replace clay pipe between manholes B5, B6 & A1, WWTP	2024	\$50,000	26%	\$13,219
P1. Hawn Creek Pump Station Upgrade	2024	\$685,433	76%	\$522,766
<b>Treatment Facility Costs</b>				
T1. Headworks Upgrade	2027	\$640,000	10%	\$62,745
T2A. Lagoon Aeration Imp - Phase 1	2022	\$430,000	25%	\$105,738
T3A. Lagoon Capacity Improvements - Raise Dikes	2022	\$620,000	32%	\$199,778
T4. Lagoon Piping Improvements	2022	\$410,000	17%	\$68,333
T5. Lagoon Disinfection Improvements	2022	\$230,000	17%	\$38,333
T6. Miscellaneous Plant Improvements	2027	\$440,000	26%	\$116,330
T7. Raise Access Rd	2027	\$400,000	0%	\$0
T8. Effluent Pump Station	2022	\$800,000	17%	\$133,333
T9. Effluent Force Main and River Outfall	2022	\$810,000	17%	\$135,000
T10. Irrigation Piping and Equipment	2022	\$590,000	33%	\$193,443
T11A. Biosolids Management Plan		\$20,000	0%	\$0
T11B. Dredging and Biosolids Land Application		\$820,000	0%	\$0
T2B. Lagoon Aeration Improvements - Phase 2	2028	\$60,000	0%	\$0
<b>Total</b>		<b>\$12,685,433</b>	<b>24%</b>	<b>\$3,090,735</b>

Source: City of Carlton Wastewater Facilities Plan (2018)

As shown in Table 3, the total improvement fee cost basis is \$3.1 million.

## Compliance Costs

Local governments are entitled to spend SDCs on costs associated with complying with SDC statutory provisions. Compliance costs include costs related to developing the SDC methodology and project list (i.e., a portion of facility planning costs), and annual accounting

costs. Table 4 shows the calculation of the compliance charge per EDU, which is estimated to be \$280.

**Table 4**  
*Compliance Charge*

Component	Total	Growth	Growth
	\$	%	\$
SDC Study	\$20,000	100%	\$20,000
Master Planning	\$100,000	23%	\$23,190
Accounting, Legal, etc.	50,000	100%	\$50,000
Total Annual Costs	\$170,000		\$93,190
Estimated Annual EDUs			464
<b>Compliance Charge/EDU</b>			<b>\$203</b>

## SDC Calculation

The reimbursement and improvement unit costs of capacity are determined by dividing the cost bases for each, by the total growth in EDUs during the planning period (from Table 1). As shown in Table 5, the total SDC per EDU is \$8,033, including the reimbursement component of \$542,166, the improvement component of \$3,090,735, and the compliance charge of \$203 (from Table 4).

**Table 5**  
*SDC Calculation*

	Cost Basis		
	\$	EDUs	\$/EDU
Improvement	\$3,090,735	464	\$6,661
Reimbursement	\$542,166	464	\$1,168
Compliance	\$94,364	464	\$203
<b>Total</b>	<b>\$3,727,265</b>		<b>\$8,033</b>

## SDC Schedule

The SDCs for different size developments are scaled based on the size of the water meter (which is also an estimate of sewer system capacity needs.) The SDCs for each meter size are shown in Table 6.

**Table 6**  
*Preliminary SDC Schedule*

Meter Size	SDCr	SDCi	Compliance	Combined	Meter
				SDC	Equivalent <sup>1</sup>
3/4-inch	\$1,168	\$6,661	\$203	\$8,033	1.0
1-inch	\$1,947	\$11,102	\$339	\$13,388	1.7
1 1/2-inch	\$3,895	\$22,204	\$678	\$26,776	3.3
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3-inch	\$13,632	\$77,713	\$2,373	\$93,718	11.7
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