



**CITY OF
CARLTON,
OREGON**

**WATER SYSTEM
DEVELOPMENT
CHARGES**

**METHODOLOGY
REPORT**

includes modifications to the
methodology
as of January 9, 2008

**Don
Ganer &
Associates, Inc.**

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CITY OF CARLTON, OREGON

Water System Development Charges Methodology Report

1.0 INTRODUCTION

System Development Charges (SDCs) are one-time fees charged to new development to help pay a portion of the costs associated with building capital facilities to meet needs created by growth. This report describes the methodology used to update the City of Carlton's water SDCs.

The City's current water SDC methodology was adopted in 1999. In November 2007, the City engaged Don Ganer & Associates, Inc. to update the water system SDCs methodology and rates to reflect current costs and statutory requirements. The SDC methodology and rates presented in this report are based on the assumptions, projects and costs included in the City's 1996 Water Master Plan. The SDC methodology and rates described in this report were made available for public review as required by ORS 223.304(7)(a) 60 days prior to the scheduled public hearing on February 11, 2008.

The data in this report were prepared using computer spreadsheet software. In some tables, there are variations from results that would be obtained using a calculator to compute the same data. These variations are a result of rounding.

The remainder of the introduction to this report presents authority and background information including (1) legislative authority for SDCs; (2) an explanation of "improvement fee" and "reimbursement fee" SDCs; and (3) requirements and options for credits, exemptions and discounts. Section 2.0 presents the water system SDC methodology and rates.

A. Legislative Authority

The source of authority for the adoption of SDCs is found both in state statute and in the City's own plenary authority to adopt this type of fee. While SDCs have been in use in Oregon since the mid-1970's, State legislation regarding SDCs was not adopted until 1989, when the Oregon Systems Development Act (ORS 223.297 - 223.314) was passed. The purpose of this Act was to "...provide a uniform framework for the imposition of system development charges..."

Legislative additions and modifications to the Act were made in 1993, 1999, 2001, and 2003. The Oregon SDC Act requires local governments that enact SDCs to:

- prepare a methodology outlining how each SDC is developed;
- adopt a plan and project list to designate capital improvements that can be funded with "improvement fee" SDC revenues;
- provide credit against the amount of the SDC for the construction of certain "qualified public improvements";
- separately account for and report receipt and expenditure of SDC revenues, and develop procedures for challenging expenditures; and
- use SDC revenues for capital improvements and compliance costs only - operations and maintenance uses are prohibited.

B. "Improvement fee" and "Reimbursement fee" SDCs

The Oregon Systems Development Act provides for the imposition of two types of SDCs: (1) "improvement fee" SDCs, and (2) "reimbursement fee" SDCs. "Improvement fee" SDCs may be charged for new capital improvements that will increase capacity. Revenues from "improvement fee" SDCs may be used for capacity-increasing capital improvements included in a required plan and list of projects that identifies the expected timing, cost, and growth-required percentage for each project. "Reimbursement fee" SDCs may be charged for the costs of existing capital facilities if "excess capacity" is available to accommodate growth. Revenues from "reimbursement fees" may be used for *any* capital improvement project, including major repairs, upgrades, or renovations that may not increase capacity.

C. Requirements and Options for Credits, Exemptions, and Discounts

(1) Credits

A credit is a reduction in the amount of the SDC for a specific development. The Oregon SDC Act requires that credit be allowed for the construction of any "qualified public improvement" that (1) is required as a condition of development approval, (2) is identified in the plan and list of projects on which improvement fee SDC revenues may be used, and (3) either is not located on or contiguous to property that is the subject of development approval, or is located on or contiguous to such property and is required to be built larger or with greater capacity than is necessary to meet the needs of the particular development project.

The credit for a qualified public improvement may only be applied against an SDC for the same type of improvement (e.g., a water improvement can only be used for a credit for a water SDC), and 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. For multi-phase projects, any excess credit may be applied against SDCs that accrue in subsequent phases of the original development project.

In addition to these required credits, the City may, if it so chooses, provide a greater credit, establish a system providing for the transferability of credits, provide a credit for a capital improvement not identified in the City's plan and list of projects, or provide a share of the cost of an improvement by other means (i.e., partnerships, other City revenues, etc.).

(2) Exemptions

The City may "exempt" certain types of development from the SDC if the exemption is tied to an adopted City goal, such as attracting industrial development or increasing the availability of affordable housing. Exemptions reduce SDC revenues and, therefore, increase the amounts that must come from other sources, such as user fees.

(3) Discounts

The City may "discount" the amount of the SDC by reducing the portion of growth-required improvements to be funded with SDCs. A discount in the SDC may also be applied on a pro-rata basis to any identified deficiencies to be funded from non-SDC sources. For example, the City may decide to charge new development an SDC rate sufficient to pay for some types of facilities but not for others (i.e., water distribution, but not water storage, etc.), or to pay only a percentage (i.e., 80%, 50%, etc.) of identified growth-required costs. The portion of growth-required costs to be funded with SDCs must be identified in the City's plan and list of projects. Because discounts reduce SDC revenues, they increase the amounts that must come from other sources, such as water system user fees.

2.0 WATER SDC METHODOLOGY AND RATES

A. SDC Basis and Justification

The source document for the SDC methodology assumptions and rates included in the SDC methodology and described in this report is the City's adopted 1996 Water Master Plan. The Water SDC establishes the required "reasonable relationship" between a development's impacts and the SDC based on the specific demand each development is expected to place on the water system. The SDC is based on the impacts of new population, and the SDC rates are calculated based on the specific impact a development is expected to have on the City's water system.

The City's water system currently serves a population of approximately 2,027 people. The City's 1996 Water Master Plan identifies facilities needed for a 20-year planning horizon, with facilities designed to serve a total population of approximately 4,400 people. Some of the facility needs identified in the 1996 Water Master Plan have already been constructed, and a portion of these facilities have excess capacity available to serve growth. For facilities that have excess capacity, the portion that is available to serve growth has been calculated, and is included in the list of the City's Reimbursement Fee SDC-Eligible Water Facilities (Table 1, below).

The following facilities identified in the 1996 Water Master Plan have already been constructed and have excess capacity available to serve growth:

TABLE 1

REIMBURSEMENT FEE SDC-ELIGIBLE WATER FACILITIES

<u>Facility</u>	<u>Net Facility Value*</u>	<u>Capacity</u>	<u>Net SDC-Eligible Cost Per Person Served</u>
1.0 MG Treatment Plant	\$4,606,707	3,143** persons	\$1,466
1,250 LF 16" Distribution Line	\$178,188	4,400 Persons	\$40

* Values are based on net total facility costs (2005) adjusted for depreciation (3 years) and changes in construction costs. Facility costs are net of grants, gifts and donations that are not eligible for recovery through a reimbursement fee SDC.

** The 1996 Water Master Plan determined that the City needs a total of 1.4 MG treatment plant capacity for a population of 4,400. This 1.0 MG plant provides 71.42% of the total need, and $71.42\% \times 4,400 = 3,143$.

For facilities that are yet to be constructed, the percentage of the capacity of each project that will serve growth has been calculated and is included in the City's Planned Water Capital Improvement Projects List (Table 2, below). All projects are planned for completion between 2008 and 2016. The estimated cost of each project is also included in the list.

TABLE 2

**PLANNED WATER CAPITAL IMPROVEMENT PROJECTS LIST
(Estimated Timing for all Projects is 2008 - 2016)**

<u>Facility</u>	<u>Total Cost***</u>	<u>SDC-Eligible Growth Percentage[†]</u>	<u>SDC-Eligible Cost</u>
1.31 MG New Storage	\$1,050,012	65.65%	\$689,321
Replace 11,750 LF 10" Pipe	\$1,171,930	53.91%	\$631,787
Replace 4,707 LF 8" Pipe	\$320,076	53.91%	\$172,553
Replace 930 LF 8" Pipe	\$63,240	53.91%	\$34,093
Replace 2,500 LF 6" Pipe	<u>\$145,000</u>	53.91%	<u>\$78,170</u>
	\$2,750,258		\$1,605,924
Less: SDC-Fund Balance			<u>(\$58,248)</u>
Net SDC-Eligible Total Costs			\$1,547,676

*** Estimated costs have been adjusted to reflect changes in the ENR 20-City Construction Cost Index since the 1996 Water Master Plan was prepared.

[†] For new storage, the City currently needs 0.45 MG of storage that is not available, so 34.35% of this project is for current needs. For pipe replacement, all projects are designed to serve both existing and future population during the planning period, so 46.09% ($2,027 \div 4,400$) of each project is for current needs, and the remainder will be for growth.

B. Water SDC Rate Calculations

The City's Water SDC rates are calculated using a series of sequential formulas which, when completed, yield the total SDC for each new water meter. The formulas identify:

- the water system reimbursement fee SDC-eligible cost per person (Formula 1-1, page 6)
- the water system capacity improvements cost per person (Formula 1-2, page 6),
- the water system compliance cost per person (Formula 1-3, page 7),
- the water system SDC per person (Formula 1-4, page 8),
- the water system SDC per equivalent dwelling unit (Formula 1-5, page 8 and
- the water system SDC per meter size (Formula 1-6, page 9)

1. Formula 1-1: Water System Reimbursement Fee SDC-Eligible Cost Per Person

The water system reimbursement fee SDC-eligible cost per person is calculated by totaling the net SDC-eligible cost per person for all facilities identified in Table 1, page 4.

	Net SDC-Eligible		Net SDC-Eligible		Reimbursement
1-1.	Treatment Plant	+	Distribution	=	Fee SDC-Eligible
	Cost Per Person		Cost Per Person		Cost Per Person

Table 3, below, presents the calculation of the water system reimbursement fee SDC-eligible cost per person.

TABLE 3

**WATER SYSTEM REIMBURSEMENT FEE
SDC-ELIGIBLE COST PER PERSON**

<u>Water Treatment</u> <u>SDC-Eligible</u> <u>Cost Per Person</u>		<u>Distribution</u> <u>SDC-Eligible</u> <u>Cost Per Person</u>		<u>Reimbursement</u> <u>Fee SDC-Eligible</u> <u>Cost Per Person</u>
\$1,466	+	\$40	=	\$1,506

2. Formula 1-2: Water System Capacity Improvements Cost Per Person

The water system capacity improvements cost per person is calculated by dividing the Net Total SDC-eligible project costs (identified in Table 2, page 5) by the estimated increase in population during the planning period.

	Net Total		Population		Water System Capacity
1-2.	SDC-Eligible	÷	Increase	=	Improvements
	Project Costs				Cost Per Person

Table 4, page 7, presents the calculation of the water system capacity improvements cost per person.

TABLE 4

**WATER SYSTEM CAPACITY
IMPROVEMENTS COST PER PERSON**

<u>Net Total SDC-Eligible Project Costs</u>		<u>Population Increase</u>		<u>Improvements Cost Per Person</u>
\$1,547,676	÷	2,372	=	\$652

3. Formula 1-3: Water SDC Compliance Cost Per Person

The City incurs costs to comply with legal requirements for SDCs and may recoup a portion of those costs in accordance with ORS 223.307(5). Compliance costs during the planning period have been estimated as follows:

Water System Master Plan, CIP, and SDC Methodology Updates (\$135,000 for consulting and staff services)	\$135,000
Annual SDC-CIP Management, Accounting and Reporting Costs (approximately \$10,000 per year for consulting, legal, audit, financial reporting and staff services)	<u>90,000</u>
Total Estimated Total Compliance Costs	\$225,000

To calculate the Water SDC Compliance Cost Per Person, the estimated total compliance costs are divided by the estimated increase in population, as shown in the following formula:

$$1-3. \quad \begin{array}{l} \text{Total} \\ \text{Compliance} \\ \text{Costs} \end{array} \div \begin{array}{l} \text{Population} \\ \text{Increase} \end{array} = \begin{array}{l} \text{Water SDC} \\ \text{Compliance} \\ \text{Cost Per Person} \end{array}$$

Calculation of the Water SDC Compliance Cost Per Person is shown in Table 5, below.

TABLE 5

WATER SDC COMPLIANCE COST PER PERSON

<u>Total Compliance Costs</u>		<u>Population Increase</u>		<u>Compliance Cost Per Person</u>
\$225,000	÷	2,372	=	\$95

4. Formula 1-4: Total Water System SDC Per Person

The total water system SDC per person is calculated by adding the water system reimbursement cost per person (from Table 3, page 6), the water system capacity improvements cost per person (from Table 4, page 7), and the water SDC compliance cost per person (from Table 5, page 7).

$$\begin{array}{rcccccc}
 & \text{Water System} & & \text{Water System} & & \text{Compliance} & & \text{Total Water} \\
 1-4. & \text{Reimbursement} & + & \text{Improvements} & + & \text{Cost} & = & \text{System SDC} \\
 & \text{Cost Per Person} & & \text{Cost Per Person} & & \text{Per Person} & & \text{Per Person}
 \end{array}$$

Table 6, below, presents the calculation of the water system SDC per person.

TABLE 6

WATER SYSTEM SDC PER PERSON

<u>Reimbursement</u> <u>Cost Per Person</u>		<u>Improvements</u> <u>Cost Per Person</u>		<u>Compliance</u> <u>Cost Per Person</u>		<u>Water System</u> <u>SDC Per Person</u>
\$1,506	+	\$652	+	\$95	=	\$2,253

5. Formula 1-5: Water System SDC Per Equivalent Dwelling Unit (EDU)

Water SDCs are charged by meter size, based on the meter’s estimated number of EDUs. The average number of persons per dwelling unit is 2.8 persons (2000 Census). The SDC per EDU is calculated by multiplying the water system SDC per person (from Table 6, above) by the average number of persons per dwelling unit (2.8).

$$\begin{array}{rcccccc}
 & \text{Water System} & & \text{Average} & & \text{Water System} \\
 1-5. & \text{SDC} & \times & \text{Persons Per} & = & \text{SDC Per} \\
 & \text{Per Person} & & \text{Dwelling Unit} & & \text{EDU}
 \end{array}$$

Table 7, page 9, presents the calculation of the water system SDC per EDU.

TABLE 7

WATER SYSTEM SDC PER EDU

Water System SDC <u>Per Person</u>		Average Persons Per <u>Dwelling Unit</u>		Water System SDC Per <u>EDU</u>
\$2,253	X	2.8	=	\$6,310

6. Formula 1-6: Water System SDC Per Meter

Water SDCs are charged by meter size, based on the meter's estimated number of EDUs. The water system SDC per meter is calculated by multiplying the water system SDC per EDU (from Table 7, above) by the number of EDUs per meter.

1-6.	Water System SDC Per EDU	X	EDUs Per Meter	=	Water System SDC Per Meter
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Table 8, below, displays the SDC rate for various sizes of meters.

TABLE 8

WATER SDC RATES BASED ON METER SIZE

<u>Meter Size (inches)</u>	<u>EDUs</u>	<u>SDC Per Meter</u>
5/8" to 1,0"	1.00	\$6,310
1.5"	3.33	\$21,012
2.0"	6.67	\$42,088
3.0"	16.00	\$100,960
4.0"	28.00	\$176,681
6.0"	61.00	\$384,912
8.0"	106.67	\$673,091

