Draft Methodology Report

Water System Development Charges

Prepared For

City of Pendleton

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SECTION 1

Introduction

Oregon legislation establishes guidelines for the calculation of system development charges (SDCs). Within these guidelines, local governments have some 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 recommended methodology for calculating water SDCs for the City of Pendleton (the City), in accordance with state law and the City's recently adopted Water System Master Plan (Murray, Smith & Associates, March 2015). While the City has charged SDCs for many years, they have been limited to transportation infrastructure.

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 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 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.

Credits

The legislation requires that a credit 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.

Update and Review

The methodology for establishing or modifying improvement or reimbursement fees shall be available for public inspection. 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. The legislation includes provisions regarding notification of hearings and filing for reviews. "Periodic application of an adopted specific cost index or… modification to any of the factors related to the rate that are incorporated in the established methodology" are not considered "modifications" to the SDC. As such, the local government is not required to adhere to the notification provisions. The criteria for making adjustments to the SDC rate, which do not constitute a change in the methodology, are further defined as follows:

- "Factors related to the rate" are limited to changes to costs in materials, labor, or real property as applied to projects in the required project list.
- The cost index must consider average change in costs in materials, labor, or real property and must be an index published for purposes other than SDC rate setting.

The notification requirements for changes to the fees that *do* represent a modification to the methodology are 90-day written notice prior to first public hearing, with the SDC methodology available for review 60 days prior to public hearing.

Other Provisions

Other provisions of the legislation require:

- Preparation of a capital improvement program or comparable plan (prior to the establishment of a SDC), that 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.
- 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.
- 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.

The provisions of the legislation are invalidated if they are construed to impair the local government's bond obligations or the ability of the local government to issue new bonds or other financing.

SECTION 2

Water SDC Methodology

Overview

The general methodology used to calculate water SDCs begins with an analysis of system planning and design criteria 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 their estimated capacity requirements.

Determine Capacity Needs

Table 1 shows the planning assumptions for the water system contained in Water System Master Plan (Master Plan). The primary relavent design criteria for the water system include the following:

- Maximum Day Demand (MDD) - The highest daily recorded rate of water production in a year. MDD is the primary factor in evaluating capacity for source, transmission and treatment facilities.
- Peak Hour Demand (PHD) – The highest total water use experienced by the water supply system, measured on an hourly basis. PHD is a factor in the sizing of distribution mains.
- Storage Requirements – Storage facilities provide three functions: operational (or equalization) storage, and storage for emergency and fire protection needs.

As shown in **Table 1**, the Master Plan estimated current MDD to be 9.6 million gallons per day (mgd), and PHD to be 16 mgd. Future (2033) projected MDD and PHD demands are 13.1 mgd and 22.3 mgd, respectively. As water mains are generally sized for build-out conditions, the MDD and PHD at build-out are also provided in Table 1. The MDD and PHD capacities required by growth are estimated to be 3.5 mgd and 6.3 mgd, respectively in 2033, and 11.1 mgd and 19.2 mgd at build-out.

Table 1 also shows that storage requirements are 3.4 million gallons (mg) currently, and they are expected to be about 6.8 mg at build-out.

Table 1
City of Pendleton Water SDC Analysis
System Planning Assumptions

				Growth	
Capacity Parameter	Existing	2033	Build-Out	2033	Build-Out
MDD (gpm)	9.6	13.1	20.7	3.5	11.1
PHD (gpm)	16.0	22.3	35.2	6.3	19.2
Storage Requirements (mg)	3.4	4.1	6.8	0.6	3.4
Source: Water System Master Plan (2015)					

Table 2 provides a summary of the existing capacities by major system function. The City supplies water to customers through two separate treated water sources: 1) the Water Filtration Plant (WFP) that treats a combination of groundwater and surface water from the Umatilla River, and 2) groundwater wells that pump directly into the City's distribution system after on-site disinfection. In evaluating sufficiency of production capacity to meet future demands for the City's SDC analysis, the long-term firm capacity is used. The City's surface water capacity is limited to 1.6 mgd during the summer peak season due to lower river levels. However, long-term firm capacity includes additional projected capacity from the City's Aquifer Storage and Recovery (ASR) system, which stores water pumped from the Umatilla River during the winter and spring. As shown in Table 2, the total long-term firm production capacity is estimated to be 11.13 mgd, compared to current demand of 9.6 mgd (from Table 1). While the existing production capacity is sufficient for current and near-term development, additional capacity for future development will be needed before the end of the planning period.

Table 2
City of Pendleton Water SDC Analysis
Water System Existing Capacity Assumptions

	Firm Capacity (mgd)	Mg
Production		
Surface Water (pumps to WFP)	1.60	
Groundwater Wells		
Well #7 (pumps to WFP)	0.43	
Wells w/Disinfection	9.10	
Long Term Firm Production Capacity[1]	***11.13***	
Storage Capacity[2]		
Airport		1.00
Gravity		4.85
Skyline		0.25

[1] Table 4-2 Water System Master Plan
[2] Table 4-4 Water System Master Plan

Table 2 also provides existing distribution storage capacity by pressure zone. The City has 8 storage reservoirs that provide a combined capacity of 6.1 mg of storage to meet operational

and emergency needs. While overall storage capacity is generally sufficient to meet projected demands, improvements are needed within pressure zones (Airport and Skyline zones) to address localized capacity needs.

Transmission and distribution mains are evaluated on individual basis in the Master Plan modeling. Many of the existing water mains were funded by developers or require replacement during the planning period due to age or capacity deficiencies. Transmission and distribution main costs and capacities are discussed in the following subsection (Develop Cost Basis).

Future system capacity requirements include additional capacity associated with growth, along with capacity to remedy existing operational and other deficiencies.

Develop Cost Basis

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

As mentioned previously, the reimbursement fee cost basis is limited to the value of capacity *available* for future growth. Table 3 shows the calculation of the reimbursement fee cost basis for the City's water system. As discussed previously, the City has 1.5 mgd of firm production capacity available for future growth; therefore, 14 percent of the existing $15.5 million value is included in the reimbursement fee. Similarly, the available capacity portion of the gravity zone storage facilities (54 percent), and Scada equipment are included in the cost basis for a total reimbursement value of $3.4 million.

Table 3
City of Pendleton Water SDC Analysis
Reimbursement Fee Cost Basis

		Growth Share	
Description	**Value**	%	$
Production			
Intake	$1,451,389	14%	$199,517
Water Filtration Plant	$10,565,592	14%	$1,452,413
Wells	$1,073,150	14%	$147,522
ASR	$2,368,209	14%	$325,549
Subtotal	$15,458,339		$2,125,001
Storage			
Gravity	$2,026,767	54%	$1,099,051
Subtotal	$2,026,767	54%	$1,099,051
Other			
Scada	$293,772	54%	$157,530
Subtotal	$293,772	54%	$157,530
Total	**$17,876,321**		**$3,381,582**

Source: City of Pendleton Fixed Asset Records

Improvement Fee Cost Basis

The cost of future capacity-increasing improvements (the improvement fee cost basis) is presented in **Table 4**. The improvements are based on costs identified in the Master Plan. Each improvement was reviewed to determine the portion of costs that expand capacity for growth vs. remedy an existing deficiency or replace existing capacity. Specifically, improvement costs are allocated to the SDC cost basis in proportion to growth's projected share of the planned capacity expansion. An increase in system capacity may be established if a capital improvement increases the level of performance or service provided by existing facilities or provides new facilities.

Production

As mentioned previously, the existing long-term production capacity of the City's water sources is greater than current demand (as measured by MDD), but not sufficient to fully meet future growth needs through 2033 or build-out. Therfore, additional improvements are needed to expand capacity for growth, and 100 percent of those costs are included in the SDC cost basis. The cost basis shown in Table 4 includes the cost of the initial expansion of about 2 mgd of well capacity in order to meet the growth needs through 2033[1]. Additional improvements will be required to meet demands beyond 2033; however, the City has yet to identify the specific projects and costs to fully meet additional needs through build-out. Therefore, the current SDC is based on the 2033 costs and demands for the purposes of determining the production component.

Transmission

Transmission mains are the back-bone of the water system, and generally provide system-wide capacity sized for build-out. Therefore, transmission improvements are allocated between existing development and growth in proportion to future capacity requirements. Based on the information provided in Table 1, growth's share of future transmission (MDD) capacity is 54 percent.

Storage & Pumping

Storage and pumping projects were reviewed individually, and allocated in proportion to capacity requirements in each pressure zone. Most of the improvements include full replacement of existing facilities with larger facilities that will serve both existing and future development; therefore, all of the projects are allocated less than 100 percent to growth. As shown in Table 4 (Part I), the growth allocations range from 0 percent (Mt. Hebron) to 44 percent (Airport). No increase in storage requirements is projected for the Mt. Hebron zone.

Other Projects

Other projects include development of an interim non-potable fire suppression system for customers in the Airport Industrial Area (AIA), pump station demolition (to allow for replacement with larger facilities), as well as planning projects. The AIA fire suppression improvements are 100 percent related to growth demands, and the other projects are allocated in part to growth, where planning projects reflect proportion of future MDD.

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[1] The additional 2 mgd added by the capital improvements, plus 1.5 mgd existing available capacity will meet the 3.5 mgd total growth need through 2033.

Table 4
City of Pendleton Water SDC Analysis
Improvement Fee Cost Basis – Part I

PROJECT	Master Plan Cost	Time Period	SDC Portion %	SDC Portion $
Major Facilities				
Additional Well Development (2033)	$1,500,000	5-Year	100%	$1,500,000
T-55 WFP High Level Transmission Main to S. Hill Reservoirs	1,552,000	10-Year	54%	832,232
R-1 2 MG Airport Reservoir replacement	3,625,000	10-Year	44%	1,595,000
R-2 0.5 MG Skyline Reservoir replacement	906,000	Build-Out	42%	380,520
P-1 Airport Pump Station Replacement	8,900,000	10-Year	16%	1,384,894
P-2 Cemetery Pump Station Upgrade	1,192,000	Build-Out	22%	256,479
P-3 New 1570 Pump Station	1,760,000	5-Year	6%	103,529
P-4 North Hill Pump Station Replacement	1,600,000	10-Year	4%	57,778
P-5 Mt. Hebron Pump Station Replacement	1,760,000	10-Year	0%	-
P-6 SE 7th Pump Station Replacement	3,520,000	20-Year	22%	757,387
P-7 Royal Ridge Pump Station Replacement	1,080,000	Build-Out	7%	71,788
Back-up Power	600,000	5-10 Year	14%	83,089
Subtotal	**$27,995,000**		25%	**$7,022,696**
PRV Projects				
V-1 53rd Ave	$150,000	Build-Out	55%	$ 81,799
V-2 53rd & H	150,000	Build-Out	55%	81,799
V-3 12th Dr	150,000	20-Year	55%	81,799
V-4 2nd & Furnish	150,000	Build-Out	55%	81,799
V-5 Lee	150,000	Build-Out	55%	81,799
V-6 Perkins-Nye	150,000	Build-Out	55%	81,799
V-7 Southern Loop	150,000	Build-Out	55%	81,799
Subtotal	**$1,050,000**		55%	**$572,592**
Other Projects				
IR-2, IP-2, IM-50, IM-51 = Airport East interim fire suppression system	$2,841,000	5-Year	100%	$2,841,000
IR-1, IP-1, IM-54 = Airport West interim fire suppression system	2,520,000	5-Year	100%	2,520,000
Existing Airport Pump Station & Reservoir Demolition	200,000	20-Year	44%	88,000
Water Management & Conservation Plan	200,000	varies	55%	109,065
Subtotal	**$5,761,000**			**$5,558,065**

Table 4 (Continued)
Improvement Fee Cost Basis – Part II (Water Mains)

PROJECT	Master Plan Cost	Time Period	SDC Portion %	SDC Portion $
M-1	$430,000	10-Year	55%	$ 234,490
M-2	490,000	5-Year	55%	267,209
M-3	134,000	20-Year	0%	-
M-4	110,000	5-Year	0%	-
M-5A	282,000	20-Year	0%	-
M-5B	647,000	20-Year	0%	-
M-5C	163,000	20-Year	0%	-
M-6	1,064,000	5-Year	0%	-
M-7	183,000	20-Year	0%	-
M-9	89,000	20-Year	0%	-
M-10	141,000	20-Year	0%	-
M-11	395,000	20-Year	0%	-
M-12	313,000	Build-out	56%	175,280
M-13	7,000	5-Year	0%	-
M-14	11,000	5-Year	0%	-
M-15A	127,000	20-Year	100%	127,000
M-15B	262,000	20-Year	100%	262,000
M-16	435,000	20-Year	100%	435,000
M-17	29,000	5-Year	55%	15,814
M-18	365,000	10-Year	55%	199,044
M-19	513,000	10-Year	100%	513,000
M-20	454,000	20-Year	100%	454,000
M-21	192,000	20-Year	0%	-
M-22	2,774,000	Build-out	100%	2,774,000
M-23	357,000	Build-out	100%	357,000
M-24	479,000	Build-out	100%	479,000
M-25	262,000	Build-out	100%	262,000
M-26	466,000	Build-out	100%	466,000
M-27	193,000	Build-out	100%	193,000
M-28	116,000	Build-out	100%	116,000
M-30	159,000	10-Year	0%	-
M-32	1,019,000	10-Year	56%	566,111
M-33A	440,000	10-Year	75%	330,000
M-33B	439,000	10-Year	75%	329,250
M-34	963,000	10-Year	100%	963,000
M-35A	304,000	5-Year	100%	304,000
M-35B	944,000	5-Year	100%	944,000
M-36	542,000	10-Year	100%	542,000
M-37	1,989,000	Build-out	100%	1,989,000
M-38A	103,517	Build-out	89%	92,015
M-38B	436,336	Build-out	80%	350,146
M-38C	9,299	Build-out	69%	6,429
M-38D	574,848	Build-out	56%	319,360
M-39	100,000	20-Year	0%	-
M-40	162,000	20-Year	0%	-
M-41	103,000	20-Year	0%	-
M-42	124,000	20-Year	0%	-
M-43	399,000	Build-out	100%	399,000
M-44	674,000	Build-out	100%	674,000
M-45	212,000	Build-out	44%	92,750
M-46	77,000	Build-out	100%	77,000
M-47	1,142,000	10-Year	69%	789,531
M-48	205,000	5-Year	100%	205,000
M-49	539,000	Build-out	100%	539,000
M-52	539,000	Build-out	100%	300,000
M-53	448,000	5-Year	100%	448,000
Pipe Replacement Program	15,800,000	20-Year	55%	8,616,141
Subtotal Water CIP – Part II	**$39,691,000**		66%	**$26,205,571**

Water Distribution

Distribution projects include Pressure Reducing Valve (PRV) projects and water mains. The PRV projects are shown in Part I of Table 4, and the planned main improvements are shown in Part II. The PRV projects are allocated in proportion to growth's share of total build-out PHD (19 mgd/35 mgd = 55 percent), based on the information in Table 1. Water mains are evaluated to determine whether the improvement is related to an existing service deficiency, or whether all or a portion of the improvement is needed for future growth. Improvements that address only existing deficiencies are excluded from the cost basis (e.g., M-3 to M-11). Improvements that extend the system to newly developed areas (e.g., M-15 & 16) are 100 percent SDC-eligible. Replacement projects are allocated to new and existing development in proportion to ultimate capacity utilization. System looping projects (e.g., M-1 and M-2) are allocated in proportion to system-wide growth in PHD (55 percent), while other projects (M-12, M-33, and others) reflect individualized analyses. Pipe replacement costs over the planning period are allocated in proportion to growth's share of total build-out PHD (55 percent). As a result of this process, approximately 66 percent of the cost ($26 million) of planned distribution main projects are included in the SDC cost basis.

Overall, the SDC cost basis includes about 53 percent of the planned improvements identified in the Master Plan. The total improvement fee cost basis (combining Parts I and II) is almost $75 million.

Develop SDC Schedule

System-wide unit costs of capacity are determined by dividing the reimbursement and improvement cost bases by the aggregate growth-related capacity requirements shown in Table 1. The unit costs are then applied to the capacity requirements of a typical dwelling unit to determine the fee per equivalent dwelling unit (EDU). The EDU rate is then scaled up based on water meter size which is a common measure of potential capacity requirements. Alternatively, interim fire suppression project costs may be assessed on a per acre basis to development within the AIA only.

EDU Capacity Requirements

Table 5 presents the calculation of the capacity requirements by design criteria per EDU from the Master Plan. Estimating capacity requirements begins with the base average demand per dwelling unit, which is estimated to be 294 gallons per day (gpd). The average demand per EDU is estimated based on the current total average day demand (3.9 mgd from Table 1) multiplied by 57 percent residential demand (from the Master Plan), divided by estimated residential dwelling units (7,564 shown in Table 5). To estimate maximum day and hour demands, the average demands are adjusted for peaking factors of 2.5 and 1.7 (ratio to MDD), respectively, yielding MDD per EDU of 735 gpd and PHD of 1,249 gpd. Storage requirement per EDU are estimated to be 243 gallons, based on the ratio of future storage to MDD (from Table 1).

Table 5
City of Pendleton Water SDC Analysis
Capacity Requirements per Equivalent Residential Unit

	Assumptions	gpd	mgd	mg
Average demand per EDU (gpd) [1]		294	0.000294	
MDD per EDU [2]		735	0.000735	
Storage Requirements per EDU [3]				0.000243
PHD per EDU [2]		1,249	0.001249	
Population	17,700			
Persons per Household (PPHH) [4]	2.34			
Dwelling Units (Population/PPHH)	7,564			
Residential % water use [5]	57%			
Peaking Factors[6]				
MDD Peaking factor	2.5			
PHD factor (ratio to MDD)	1.7			

[1] Equal to current ADD (3.9 mgd) X residential water use (57%) / dwelling units (7,564)

[2] Equal to ADD per EDU X peaking factor

[3] Equal to MDD per EDU X ratio of future storage requirements (6.86 mg) to MDD (20.7 mgd)

[4] Master Plan, Table 3-1

[5] Master Plan, page 3-8

[6] Master Plan, Table 3-7

Unit Costs and SDC per EDU

Tables 6 and 7 shows the reimbursement and improvement fee calculations. The cost basis by major function is divided by capacity requirements of growth from Table 1 to determine the unit costs of capacity. Multiplying the per unit capacity requirements by the system-wide unit costs, yields a reimbursement fee of $534 per EDU, and an improvement fee of $2,818 per EDU.

The SDC for the AIA interim fire suppression system SDC is calculated by dividing the costs of the improvements ($5.361 million from Table 4) by the acres to be served by the system (1,416), to determine a cost per acre of $3,785 for development within the AIA. Alternatively, the interim fire protection improvements may be included in the system-wide distribution system costs. The latter approach would yield a distribution unit cost of almost $1.7 million (compared to $1.4 million shown in Table 7), and an improvement fee per EDU of $3,167 (compared to $2,818 shown in Table 7).

Table 6
City of Pendleton Water SDC Analysis
Reimbursement Fee Calculation

	System Component					
	Source	Storage	Pumping	Transmission	Distribution	**Total**
Growth-related CIP cost	$2,125,001	$1,099,051	$0	$0	$157,530	$3,381,582
	mgd	mg	mg	mgd	mgd	
Growth-related capacity requirements	3.5	3.44	3.44	11.1	19.2	
Unit cost of additional capacity (per mgd)	$607,143	$319,492	$0	$0	$8,209	
Capacity Requirements per EDU	0.000735	0.000243	0.000243	0.000735	0.001249	
Additional capacity cost per EDU	**$446**	**$78**	**$0**	**$0**	**$10**	**$534**

Table 7
City of Pendleton Water SDC Analysis
Improvement Fee Calculation

	System Component					
	Source	Storage	Pumping	Transmission	Distribution	**Total**
Growth-related CIP cost[1]	$1,500,000	$1,975,520	$2,802,944	$832,232	$26,887,227	$33,997,923
	mgd	mg	mg	mgd	Mgd	
Growth-related capacity requirements	3.5	3.44	6.3	11.1	19.2	
Unit cost of additional capacity	$428,571	$574,279	$447,041	$74,976	$1,401,106	
Capacity Requirements per EDU	0.000735	0.000243	0.001249	0.000735	0.001249	
Additional capacity cost per EDU	**$315**	**$140**	**$558**	**$55**	**$1,750**	**$2,818**

[1]Excludes AIA interim fire suppression system costs ($5.4 million)

Combined Fee

Water SDCs are generaly assessed based on development's required water meter size, as the hydraulic capacity of the meter is a reasonable estimate of a development's potential water demand. **Table 8a** shows the combined SDC by meter size, based on the hydraulic meter equivalent of each meter size to a base ¾-inch meter, and inclusion of interim fire suppression improvements included in the system-wide SDC).

Table 8a
City of Pendleton Water SDC Analysis
SDC Schedule (with AIA Fire Improvements)

Meter Size	SDCr	SDCi	Compliance	SDC	Meter Equivalent
3/4-inch	$534	$3,167	$68	$3,769	1.0
1-inch	$908	$5,384	$116	$6,408	1.7
1 1/2-inch	$1,763	$10,451	$225	$12,439	3.3
2-inch	$2,831	$16,786	$361	$19,978	5.3
3-inch	$5,715	$33,888	$729	$40,332	10.7
4-inch	$8,920	$52,891	$1,138	$62,949	16.7
6-inch	$17,786	$105,465	$2,269	$125,520	33.3
8-inch	$42,730	$253,369	$5,451	$301,550	80.0

As mentioned previously, an alternative approach is to recover the interim fire suppression improvements within the AIA through a separate charge on AIA development only of $3,785 per developed acre. This option is presented in Table 8b. As shown in Table 8b, recovery of an AIA-specific fire suppression SDC would reduce the system-wide SDC for all meter sizes.

Table 8b
City of Pendleton Water SDC Analysis
Water System Development Charge
Recommended SDC Schedule (w/Separate Interim Fire Charge in AIA)

Meter Size	SDCr	SDCi	Compliance	Combined SDC	Meter Equivalent
System-Wide SDC ($/Meter)					
3/4-inch	$534	$2,818	$68	$3,420	1.0
1-inch	$908	$4,791	$116	$5,815	1.7
1 1/2-inch	$1,763	$9,300	$225	$11,287	3.3
2-inch	$2,831	$14,936	$361	$18,128	5.3
3-inch	$5,715	$30,154	$729	$36,599	10.7
4-inch	$8,920	$47,064	$1,138	$57,121	16.7
6-inch	$17,786	$93,845	$2,269	$113,901	33.3
8-inch	$42,730	$225,454	$5,451	$273,635	80.0
AIA Fire SDC ($/Acre of Development)[1]		$3,785			

[1] Assessed in addition to the System-Wide SDC

Compliance Costs

Local governments are entitled to include in the SDCs, a charge to recover costs associated with complying with the SDC statutes. Compliance costs include costs related to developing the SDC methodology and project list (i.e., a portion of master planning costs). **Table 9** shows the calculation of the compliance charge per EDU, which is estimated to be $68.

Table 9
City of Pendleton Water SDC Analysis
Compliance Charge

Component	Years	Total	Growth	Annualized
SDC Study	5	$6,500	100%	$1,300
Master Planning	10	$300,000	50%	$14,930
Total Annual Costs		$306,500		$16,230
Estimated Annual EDUs				238
Compliance Charge/EDU				**$68**

Inflationary Adjustments

In accordance with Oregon statutes, the SDCs will be adjusted annually based on a standard inflationary index. Specifically, the City plans to use the Engineering News Record (ENR) 20-City Average Construction Cost index as the basis for adjusting the SDCs annually.