
Water System Development Charge Methodology



Seal Rock Water District

Lincoln County, Oregon
March 2014



Civil West

Engineering Services, Inc.

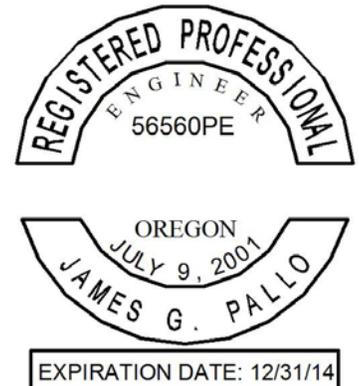


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1.0 Executive Summary

Section 1

1.1. Background

The Seal Rock Water District (SRWD) is located in Lincoln County, Oregon and serves a relatively long and narrow band of coastal land between the cities of Waldport and Newport. The service boundary encompasses around 6,505 acres or 10.2 square miles. The current water system contains two storage tanks, seven pumping stations, and 60 miles of piping covering six pressure zones. Water supply for the District comes from the city of Toledo. Raw water supply, transmission, and water treatment facilities in Toledo are sized to provide for both the City and the SRWD. Approximately 50% of all water sold by the city of Toledo is purchased by the SRWD.

Civil West Engineering has been working with the District for a number of years to improve the infrastructure of the existing water system. A new Water Master Plan (WMP) was completed in 2010 which included a comprehensive Capital Improvement Plan (CIP). In recent years that CIP list has been modified and adjusted to better serve the District. This CIP was used as the basis for this Methodology and is included later in this document.

This Methodology will be able to give possible options for funding the new CIP list. The SDC methodologies and calculations presented herein are consistent with the framework set forth by the Oregon SDC legislation encapsulated within ORS 223.297 to ORS 223.314.

1.2. Overview of SDC Methodology

Water was the only infrastructure analyzed in this Methodology and recommendations were prepared for an appropriate and defensible SDC. A summary of that effort is provided below.

1.2.1. Water System SDC

The projects in the water system CIP have been carefully analyzed to determine what percentage of each project is dedicated to providing capacity for future growth. Based on the analysis, a total SDC eligible project cost has been established.

Population estimates and the District's projected growth rates were used to establish the projected or future EDU's that will require additional capacity in the system. The water system SDC was established by dividing the SDC eligible project costs by the total projected growth in the system resulting in a maximum water system SDC.

Credits should be developed, as appropriate, to eliminate the potential for "double-dip" charges that could result from a new user paying both increased user fees in support of a loan to construct new facilities in addition to paying SDC fees for the same facility.

A summary of the SDC Methodology for the water system is provided below in Table 1.2.1-1. For detailed coverage of the water system SDC Methodology, see Section 3.0 of this Methodology.

Table 1.2.1-1 – Water SDC Summary (before compliance costs)

SDC Component	SDC Amount
Reimbursement Fee Per Section 3.6	\$1,134.92
Improvement Fee Per Section 3.7	\$2,396.41
Subtotal of Water SDC Fees	\$3,531.33

1.2.2. Compliance Costs

Oregon law allows a utility service provider to use SDC revenues to pay for costs associated with complying with and administering SDC programs. While this is not a separate category, it is acceptable to assess a “compliance charge” when collecting SDC fees.

Acceptable compliance cost activities include accounting and auditing costs, SDC methodology updates and plans, master planning costs, CIP administration costs, and other costs that are determined to be necessary to support and properly manage an SDC program.

It was estimated that the District will face an annual compliance cost of around \$8,900 related to administration of the SDC programs and maintaining proper infrastructure planning. A summary of the estimated SDC compliance expenses is provided below in Table 1.2.2-1.

Table 1.2.2-1 – Calculation of SDC Compliance Expenses

Compliance Activity	Estimated Cost	SDC Eligibility (%)	Frequency (years)	Annual \$
General Accounting/Administration Costs				
Auditing/Accounting	\$2,400	100	1	\$2,400
SDC Methodology Administration & Annual Adjustments	\$3,000	100	1	\$3,000
SDC Methodology Update	\$10,000	100	10	\$1,000
Water System Compliance Costs				
Water Master Planning	\$50,000	50	10	\$2,500
Subtotal of Annual Costs	\$65,400			\$8,900

Collection of funds to pay for these annual SDC compliance costs should be in the form of a percentage surcharge on all SDC’s collected. Therefore, an estimate must be made of the revenue that the District is projecting to collect over the planning period.

Based on this analysis, it will require a surcharge of around 3.94% on all SDC’s to collect adequate funds to properly administer an SDC program for the Seal Rock Water District. Section 4.0 includes information and details on the establishment of SDC compliance costs.

1.2.3. Sample SDC Assessment

A simple example (Table 1.2.3-1) of an SDC assessment would be for a new single family dwelling. The assessment for this new customer would be as follows:

Table 1.2.3-1 – Sample Residential SDC Assessment

SDC Sector	SDC Charge per EDU
Water System	\$3,531.33
Compliance Cost Surcharge	\$139.17
Total Residential SDC	\$3,670.50

Therefore the total SDC in the Seal Rock Water District would be around \$3,670 for an average new residential dwelling. This does not include any potential reductions for SDC credits that may be appropriate in Seal Rock depending on how the District undertakes the various CIP projects in the future.

1.2.4. SDC Ordinance and Methodologies

The SDC program in the Seal Rock Water District is to be established through the ordinance process. A single ordinance will set the ground work for the District. The ordinance will provide the legal clout necessary to govern the administration and operation of the ordinance. A new ordinance has been prepared as part of this methodology. The new ordinance must pass through the regular and required ordinance process before being adopted as law within the District. Upon completion of the process, the new ordinance will replace the old ordinance.

In addition to a new ordinance, a new resolution will be established to set the particular charge and other details for the water system SDC.

This approach will allow the District to easily update SDC charges on a regular basis by simply passing a new resolution for the SDC program. There will be no need to adjust the SDC ordinance in the future.

2.0 Introduction to SDC Methodology

Section 2

2.1. Background

The Seal Rock Water District (SRWD) is located in Lincoln County, Oregon and serves a relatively long and narrow band of coastal land between the cities of Waldport and Newport. The service boundary encompasses around 6,505 acres or 10.2 square miles. The current water system contains two storage tanks, seven pumping stations, and 60 miles of piping covering six pressure zones. Water supply for the District comes from the city of Toledo. Raw water supply, transmission, and water treatment facilities in Toledo are sized to provide for both the City and the SRWD. Approximately 50% of all water sold by the city of Toledo is purchased by the SRWD.

The SRWD serves residential and small commercial customers through approximately 2,400 water meters. According to past planning documents, the SRWD was formed in 1959 and began serving water to 175 customers in the 1960's. The 2010 population was estimated at 4,050 persons. Based on a 1.5% average annual growth rate the population served is expected to grow to 6,054 persons by the year 2035.

The purpose of this study is to develop and discuss the methodology used to update the existing SDC program for the SRWD distribution system.

2.1.1. Summary of Previous SDC Charge Structure

The SRWD originally established a System Development Charge (SDC) for water based on a methodology developed in 1994. Since that time, periodic updates to reflect improvement progress, system needs, and inflation have occurred. The current Water SDC is \$1,200 per Equivalent Dwelling Unit (EDU). This report provides the background data and methodology necessary to update the current SDC to a new value.

2.2. Oregon SDC Law

The State of Oregon has established statutory law for the development, assessment, and administration of SDC's for local governments, utility districts, and similar agencies. Oregon Revised Statutes (ORS) 223.297 - 223.314 authorizes local governments and service districts to assess SDC's for various infrastructure sectors including sewer, water, storm drainage, streets, and others.

The purpose of these rules is to provide a uniform framework for the imposition of SDC's by local governments, to provide equitable funding for orderly growth and development and to establish that SDC's may be used only for capital improvements.

In addition to specifying the infrastructure systems for which SDC's may be assessed, the SDC legislation provides guidelines on the calculation and modification of SDC's, accounting requirements to track SDC revenues and the adoption of administrative review procedures. A summary of the statutory SDC provisions is provided below:

2.2.1. SDC Structure

SDC's are typically developed around two separate modes or philosophies of SDC logic. They are:

1. Reimbursement SDC
2. Improvement SDC

SDC's can also be assessed based on a combination of reimbursement and improvement charges. In addition to these charges, the statute allows agencies to recover administrative costs that are necessary to set up, comply with and administer SDC programs. We will refer to these costs as compliance costs.

Reimbursement SDC. A reimbursement SDC is designed to recover capital costs for projects that have already been undertaken. Current legislation requires that the reimbursement SDC be established by an ordinance or resolution that sets forth the methodology used to calculate and assess the charge. The methodology must integrate a number of factors when determining an appropriate SDC cost including:

1. The cost of existing facilities when they were constructed or implemented
2. Remaining capacity available for growth or development use
3. Prior contributions from existing users
4. The value of unused capacity
5. Ratemaking principles employed to finance the capital improvements
6. Grants or other funding sources that must be subtracted from the eligible costs
7. Other relevant factors

The objective of a reimbursement SDC is that future system users contribute an equitable portion of the capital costs of developing new facilities with excess capacity.

For an example of a reimbursement SDC, consider a water storage tank which is constructed to meet a current deficiency, but was sized to meet storage needs 20 years into the future. If a 0.5 million gallon tank was needed immediately but a 1.0 million gallon tank was constructed to meet the 20-year needs, then half of the tank is available for future users and growth. The increased cost to double the tank size is then eligible for a reimbursement SDC. The value of the remaining unused capacity of the tank in any year can be calculated and assessed as a reimbursement SDC eligible project cost to all new customers who wish to utilize some of the remaining capacity during the remainder of the design period (15 or 20 years, or whatever the case may be).

Improvement SDC. The improvement SDC is designed to recover costs of planned capital improvements as they appear on an adopted capital improvement list or capital improvement plan (CIP). The improvement SDC must also be specified in an ordinance or resolution and is subject to the following conditions:

1. The costs of projected capital improvements will increase the capacity of the system.
2. Projects must appear on an approved and adopted CIP list or be added to the list through development review and approval.
3. Projects must serve more than the development for which the SDC is being charged. Specifically, to be considered a qualified project:
 - a. the project is not located on or contiguous to property that is being developed, or
 - b. the project is 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.

Revenues generated from improvement SDC's must be 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.

The portion of such improvements funded by improvement SDC's must be related to current or projected development.

Combined SDC. In most cases, growth needs due to development will be met through a combination of existing available capacity (reimbursement SDC) and future capacity enhancing improvements (improvement SDC). The sum of reimbursement and improvement SDC's is commonly referred to as a combined SDC. However, when utilizing a combined SDC, the methodology must demonstrate that the charge is not based on providing the same capacity-increasing result due to both SDC's. In short, an agency cannot "double-dip" when using a combined SDC. This is usually accomplished by structuring the fee to reflect the weighted average cost of existing and new facilities.

Compliance Costs. Oregon law allows SDC revenue to be utilized by the assessing agency for costs incurred in an effort to comply, administer, study and update an SDC program. Compliance costs include, but are not necessarily limited to:

1. Auditing and accounting costs
2. Master/Facilities Planning Costs and Planning Updates
3. SDC Methodology Development Costs and Updating of SDC Plans
4. Maintenance of a Capital Improvement Plan (CIP) list

Compliance costs are typically assessed based on a percentage of the overall or maximum anticipated or projected annual SDC revenue. These revenues must be used to maintain or administer an active SDC program. Compliance costs are discussed in Section 4.0.

2.2.2. SDC Credits

Oregon law requires that an SDC credit be provided against any assessed improvement fee for the construction of "qualified public improvements." Qualified improvements, as discussed above, are improvements that are required as a condition of development approval, are included on the CIP list and are 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.

In simple terms, if a new water pump station appears on a CIP list and is required for a specific development to be undertaken, the owner of the development can construct the new pump station and receive an SDC credit for the SDC eligible portion of the project costs, assuming that the new station is needed to serve more customers than are represented by the development alone.

An additional credit must be included in the methodology for the present worth of financing payments that may occur in the future for an undertaken improvement. In short, new users cannot be required to pay SDC's for specific improvements as well as pay increased user rates to pay back loans that were required to construct the improvements. This form of "double-dipping" is overcome by establishing a credit based on the present worth of a potential increase in monthly user rates over a specified period of time.

2.2.3. Update and Review Requirements

SDC methodology is public information and must be made available for public review.

The SDC ordinance must include procedures and practices for not only the establishment but the modifying and updating of SDC fees. Public agencies must maintain a list of persons and organizations who have made a written request for notification prior to the adoption or amendment of any new or updated SDC fees.

However, changes to the SDC rates resulting from:

1. changes to costs in materials, labor, or real property as applied to projects in the required project list, or
2. application of a cost index that considers average change in costs of materials, labor, or real property and is published for purposes other than SDC rate setting (i.e. ENR Construction Cost Index)

are not considered “modifications” to the SDC. As such, the local agency is not required to adhere to the notification provisions.

If changes to the SDC methodology or assessment amounts do represent a modification, the notification provisions in the Oregon law require a 90-day written notice period prior to the first public hearing, with the new SDC methodology available for review at least 60 days prior to the public meeting.

2.2.4. Other SDC Statutory Provisions

Other provisions of the Oregon legislation require:

1. Development of a capital improvement program/plan (CIP) or comparable planning effort that lists the improvements that may be funded with improvement fee revenues and the estimated timing and cost of each improvement. (This is usually accomplished through a master planning effort.)
2. Deposit of SDC revenues into dedicated and individual accounts and the annual accounting of revenues and expenditures. The annual accounting effort must include a list detailing the amount spent on each project funded, in whole or in part, by SDC revenues, including costs attributed to complying with the SDC legislation.
3. Creation of an administrative appeals procedure, in accordance with the legislation, whereby a citizen or other interested party may challenge any expenditure of SDC revenues.
4. Preclusion against challenging the SDC methodology after 60 days from the enactment of or revision to the SDC ordinance or resolution.

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. Furthermore, the establishment or modification of an SDC or a project list is not a land use decision issue.

2.3. Capacity Replacement Protocol

It is common to have a system in place that allows a new land use or development to replace an existing land use and provide an adjustment to SDC's.

For example, if someone buys an old house, tears it down, and constructs a new residential home in its place, no new flows or demands are added to the system, and no new capacity is required to service the new residence. Therefore, it would be appropriate to waive SDC fees in this instance.

If someone tears down a number of old homes to build a new apartment complex, the project must be carefully considered, and an adjustment made, depending on how many new units there will be, how much more impervious surface, etc. compared to the previous land use.

Capacity replacement issues must be handled on a case by case basis and a process developed to allow a fair adjustment when existing capacity use is replaced with a similar land use.

2.4. Public Education and Input to Methodology

A successful SDC methodology update must incorporate a public education and public input component that effectively conveys information to interested and affected groups in the community and allows them a forum to ask questions, voice concerns and seek resolutions.

2.5. Report Organization

The following sections comprise this SDC Methodology Plan for the Seal Rock Water District as presently constituted:

- **Section 1 – Executive Summary.** This section provides a brief overview and summary of the SDC Methodology and is intended to provide the reader with the important facts and findings contained in the overall plan.
- **Section 2 – Introduction.** This section provides information on the background of SDC's in Seal Rock and the legal and statutory background for the establishment of SDC's within the State of Oregon.
- **Section 3 – Water System SDC Methodology.** This section provides a detailed accounting of the water system SDC methodology.
- **Section 4 – Compliance Costs.** This section provides a detailed accounting and methodology for the establishment of a compliance cost for the maintenance of SDC programs for the Methodology.
- **Appendices.** The Appendices includes information that is referenced in this study but is not included in the referenced planning documents.

3.0 Water System SDC Methodology

Section 3

3.1. Introduction

This section describes the methodology and SDC calculation for the potable water system for the Seal Rock Water District (SRWD). Included are descriptions of the existing and future demand requirements on the water system, existing and future equivalent dwelling units (EDU) for the calculation of SDCs, the projects and project costs developed to address deficiencies and satisfy future demand needs, and a calculation of the maximum justifiable SDC for the SRWD (per equivalent dwelling unit).

The District's Water System Master Plan (November 2010, Civil West Engineering Services, Inc.) and Water System Master Plan Amendment No. 2 (March 2013, Civil West Engineering Services, Inc.) have been used to establish present and future water demand, system capacity, improvement project development, project costs and other information that will be used in this methodology.

3.2. Water System Overview and Background

3.2.1. Overall Water System Description

The water distribution system in Seal Rock includes a number of separate elements to obtain and treat water for domestic consumption and transmit water to individual customers. A brief overview of the different system elements is provided below.

Source. The Seal Rock Water District purchases water from the City of Toledo. Raw water travels from the Siletz River in the summer and Mill Creek in the winter to the Toledo Water Treatment Plant (WTP). The water rights for Toledo and the SRWD are as follows:

- SRWD holds 2.6 cubic feet per second (cfs) on the Siletz River (junior to the instream rights)
- Toledo holds 5.75 cfs (senior) and 4.0 cfs (junior) on the Siletz River
- Toledo holds 15.0 cfs on Mill Creek (senior) plus 250 acre-feet of permitted storage behind the Mill Creek Dam

Treated water travels through approximately 50,000 feet of 12-inch dedicated transmission piping to the SRWD. The Toledo Pump Station is where a master meter exists to measure flows entering the SRWD system from Toledo.

Treatment. Seal Rock water treatment is provided by the City of Toledo WTP. The SRWD does maintain a chlorine booster station near the District end of the 50,000 foot transmission piping to ensure proper free chlorine residuals in the District.

Distribution. The SRWD's water distribution system consists of approximately 60 miles of piping ranging in size from 2-12 inches in diameter and seven pump stations, which includes the Toledo Pump Station. There is also a small amount of 14-inch HDPE pipe in the system. Various other pipe materials are found throughout the system.

The seven pump stations are located throughout the District as follows:

- York and Beaver Creek Pump Station – Used merely to overcome pipe restrictions in the long piping system. Turn on simultaneously based on the water level in the Driftwood Tank.
- Toledo Pump Station – This is the initial pump station near the City of Toledo where the master meter is used to measure the SRWD consumption. It is based on the water level in the Lost Creek Tank.
- Cross Street and East Bayshore Pump Station – These pump stations boost pressure to higher elevation areas containing 70-90 homes each. They contain two normal duty pumps and one larger “fire” pump with start/stop based on pressure switches connected to a 500-gallon hydropneumatic tank.
- Driftwood and Lost Creek Booster Pump Stations – Serve relatively small areas containing 8-9 homes each.

Storage. The District has two in-use finished water storage tanks within the distribution system, totaling 2.3 MG. A summary of each tank is provided below:

- Driftwood Tank – Welded Cor-Ten steel tank constructed in 1981. The water surface elevation is 265.5 feet. The service elevation range, which results in the ideal pressure range of 40 to 80 psi, is from 173 feet down to 81 feet. Total volume is 0.9 MG.
- Lost Creek Tank – Glass-fused-to-steel tank constructed in 2005. The water surface elevation is 301 feet. The service elevation range, which results in the ideal pressure range of 40 to 80 psi, is from 208 feet down to 116 feet. Total volume is 1.4 MG.
- Makai Tank – Concrete tank constructed in 1971 which is currently off-line. The water surface elevation is 242 feet which makes it too low to fit into the system today and thus cannot be used any more.

3.2.2. Population and Population Projections

Since Seal Rock Water District is an unincorporated community precise population estimates are difficult to obtain. According to the 2010 WMP full-time population was estimated at 4,050 persons with 1.65 people per household and 2,453 housing units. Growth in the SRWD over the last 20 years has averaged 1.5% per year based on accurate records for new water meter (water service) installations. This same 1.5% growth rate is projected to occur on average over the next 20 years. Table 3.2.2-1 below shows the population projection for the district in five year increments and extends past the planning period.

Table 3.2.2-1 – Seal Rock Water District population projection (2013-2035)

Year	Population Estimate
2013	4,363
2015	4,495
2020	4,842
2025	5,216
2030	5,620
2035	6,054

3.3. EDU Methodology and Projected Growth

Local water system capacity is commonly defined using a system that seeks to reduce all customers, including residential and non-residential users, to a common denominator called an equivalent dwelling unit (EDU). An equivalent dwelling unit represents the demand or quantity of water required on a daily basis by an average residential customer within the system. The cumulative demand or impact on the system generated by all the users can therefore be expressed in terms of a multiple of EDU's.

An example of using the EDU method to describe non-residential water use follows:

A restaurant is a non-residential water customer that uses more water than a typical household. A review of the water records for a particular restaurant may show that, over a period of time (a typical yearly operation) the restaurant used as much water as 14 average residential customers in the community. Therefore, it can be said that the restaurant's water use or water demands are equivalent to 14 residential dwellings. More simply, the restaurant is equal to 14 EDU's. This value can be used to calculate and compare the regular water use at the restaurant, or any non-residential customer, to the water use in the residential sector of the system.

In order to project future EDU's it is assumed that the EDU growth rate will equal the customer growth rate mentioned previously in the population section. This logic assumes that all sectors in the District will grow at a rate similar to that of the overall customer population. Under this assumption it is anticipated that, for example, commercial enterprises will expand in response to population growth and job creation.

In determining the appropriate EDU for the District the amount of 3/4" water meters in 2012 was 2,525 (Water Master Plan Amendment 2012). This translates into 3,131 EDU's in the SRWD. The 3/4" water meters are used because those are the typical single family residential dwelling (SFR) units. The EDU analysis is based on residential water consumption, therefore, we must base this on SFR meters. A summary of the estimated EDU's in the coming years is shown in Table 3.2.2-1 below.

Table 3.2.2-1 – Seal Rock Water District EDU estimate for the planning period

Year	EDU Estimate
2012	3,131
2015	3,274
2020	3,527
2025	3,800
2030	4,093
2035	4,410

Based on water sales records (Water Master Plan, 2010), the average quantity of water sold to a typical single-family dwelling unit inside the District boundary (3/4" domestic meter inside District) is 2,950 gallons per month. This volume sold per month becomes the basis for Equivalent Dwelling Unit (EDU) calculations with 1 EDU = 2,950 gallons per month in metered sales. Other users can then be described as an equivalent number of EDU's based on their relative water consumption. For example, a commercial business that had an average metered consumption of 5,900 gallons per month uses twice the amount of water as the typical single-family dwelling and can be considered 2 EDU's.

The current and projected EDU analysis is as follows:

<u>Seal Rock Water District</u>	
2012 EDU Total	3,131
2035 EDU Total	4,410
Growth in EDU's	1,279

3.4. CIP Project Summary and Project Costs

An integral component in this water SDC methodology is the establishment of a Water System Capital Improvement Plan or CIP. The CIP list will show all past and future projects along with their actual or estimated project costs. Projects on the CIP that have been completed will form the basis for reimbursement SDC's as defined in Section 2.0. Projects that remain to be completed will form the basis for improvement SDC's, also defined in Section 2.0.

3.4.1. Master CIP List

The 2010 Water Master Plan developed for Seal Rock established the initial CIP list. Since that time the CIP list has been amended in recent years to adjust for removal and addition of various projects. Table 3.4.1-1 below compiles the most recent CIP lists into one master list. For the purpose of this methodology all past and future projects are included in order to complete a proper methodology for the District. Applicable planning documents are also included at the bottom of the list.

This master CIP list should be updated regularly as new project needs arise. Likewise, if it is determined that a particular project is no longer needed, it should be dropped from the CIP list, which would therefore affect this Methodology.

Table 3.4.1-1 – Master Seal Rock CIP list including completed projects and recent planning documents

Project No.	Project Description	Project Cost/Estimate	Current Estimate Date/Status
1	Distribution Piping - NW Lotus Lake Drive	\$312,497	Completed
2	Distribution Piping - NW Orcas Dr.	\$170,280	Completed
3	Distribution Piping - Quail Street, Old Coast Rd, Seagull Way Loop	\$453,459	Completed
4	Distribution Piping - Pacific Shores	\$352,401	Completed
5	Distribution Piping - Powe Dr. (Silver Sands)	N/A	Completed
6	Distribution Piping - Parker Way	\$20,745	Completed
7	Distribution Piping - Marsh Street	\$3,973	Completed
8	Distribution Piping - SW 100th Court	\$14,019	Completed
9	Distribution Piping - SE 118th St.	\$9,458	Completed
10	Distribution Piping - SE 145th Street	\$22,708	Completed
11	Toledo Pump Station Upgrade	\$42,972	January 2014
12	Beaver Creek Pump Station Bypass/Abandonment	\$17,228	January 2014
13	York Pump Station Upgrade	\$174,901	Completed
14	Distribution Piping - East Piping to North End	\$998,255	Completed
15	Distribution Piping - SE 116th St. to SE 98th St.	\$742,029	January 2014
16	Distribution Piping - BAYSHORE - View Ridge - Cedar Crest	\$485,499	January 2014

Project No.	Project Description	Project Cost/Estimate	Current Estimate Date/Status
17	Distribution Piping - BAYSHORE - Admiral Way to Marine View Drive	\$68,333	January 2014
18	Distribution Piping - SURFLAND - Hwy 101 to 73rd St.	\$176,046	January 2014
19	Newport Intertie - PRV/Booster Station	\$460,960	January 2014
20	Distribution Piping - Cross St. and NW Grandview St. Loop	\$245,478	January 2014
21	Distribution Piping - Art St., Park View St., and Line St. Loop	\$647,033	January 2014
22	Distribution Piping - Huckleberry and Blackberry Street	\$247,782	January 2014
23	Distribution Piping - NW Kona St. and Pali St.	\$345,321	January 2014
24	Distribution Piping - SE Chittum Drive	\$135,603	January 2014
25	Distribution Piping - SW Brandt, SW Abalone St.	\$199,635	January 2014
26	Distribution Piping - SE Cedar St.	\$213,561	January 2014
27	Distribution Piping - SE Birch St.	\$180,255	January 2014
28	Distribution Piping - HDD at Beaver Creek-Hwy 101	\$638,378	January 2014
29	Distribution Piping - Seal Rock St., Hwy 101 to Grandview	\$121,640	January 2014
30	Beaver Creek Supply Feasibility Study	\$312,092	January 2014
31	Other 2-Inch Piping Replacements	\$3,745,104	January 2014
32	Cross Street Storage Tank (Water Surface 305')	\$938,947	January 2014
33	Add Chlorine Booster to Newport Intertie	\$193,757	January 2014
	CIP List Total	\$12,690,345	
34	SDC Methodology	\$19,961	January 2014
35	Water System Master Plan	\$47,168	Completed
36	Water System Master Plan Scope Expansion	\$43,488	Completed
35	Water System Master Plan	\$28,156	Completed
	Planning Documents Total	\$138,773	
	TOTAL	\$12,829,118	

The CIP project list above indicates the date when the project cost estimate was prepared in the last column. This will allow for future planning by using the appropriate Engineering News Record Index (ENR Index). For this Methodology the ENR Index that is used as current was January 2014 (9664.45). The ENR Index value is updated monthly to adjust for inflation, material and labor costs, changes in the industry, and other factors that affect the cost of engineering and construction efforts.

3.5. Determination of Project SDC Eligibility

The SDC methodology must include a discussion of the percentage of each project's cost that can be attributed, as necessary, to growth and, therefore, be considered SDC eligible. As discussed previously, SDC's must be based on a project's costs or the portion of a project's cost that is necessary to add system capacity in response to or in anticipation of growth.

When determining what percentage of a project should be considered SDC eligible, one must consider existing capacity needs versus future capacity needs. If a project is developed to provide a 50% increase in capacity to an element of the water treatment or distribution system, 50% of the project costs would be considered to be SDC eligible. If a project is developed to provide service to a new area not currently served by municipal water and where development is expected to occur, the project could be considered to be 100% SDC eligible.

Using this approach, all of the projects presented in Section 3.4 were reviewed to determine SDC eligibility. For projects already completed, the actual project costs were used to determine eligible SDC reimbursement costs. For in progress or future projects, project estimates were used to determine SDC eligibility.

When determining SDC eligibility it is also required to determine the amount of grant funding that was used for any of the projects completed in the above CIP list. It was found that funding for the completed projects was done through bonds or SRWD money alone. This makes it possible for those projects to be eligible for SDC reimbursement.

A brief description is provided below to illustrate the logic and approach taken to determining the eligibility of each project on the CIP list.

Project 1: NW Lotus Lake Dr. (includes Project 5, Powe Dr.)

The Lotus Lake project corrected extreme pressure and flow problems in an undeveloped area. The project was considered necessary to provide capacity and service for development and is 100% SDC eligible.

The Powe Dr. project replaced undersized 2-inch piping with new 6-inch piping. The existing 2-inch pipe was too small to properly serve further development and approximately half of the lots remain vacant. This project is considered 50% SDC eligible since the new pipe is designed to allow a doubling of EDUs served (100% increase) over the planning period while also replacing existing capacity for half the total lots possible.

Projects 2 and 7: NW Orcas Dr. and Marsh St.

These projects replaced deteriorated and undersized 2-inch piping with new 6-inch piping. The existing 2-inch pipe was too small to properly serve further development however little new development is expected with approximately 85% of the available building space already occupied. 6-inch pipe is the minimum pipe size recommended for public utilities and is the minimum size allowed by current District standards. These projects are considered only 15% SDC eligible.

Projects 3: Quail St., Old Coast Rd., Seagull Way

This project created a major loop in the center of the District service area by replacing undersized 2-inch piping with new 8-inch and 6-inch piping. The project also eliminated several dead-end pipes. The project improved flows for the entire southern half of the District and allow for new development over large areas. This project is conservatively estimated to be 50% SDC eligible.

Project 4: Pacific Shores

This project replaced undersized 2-inch and 3-inch piping serving a large area with approximately 150 platted lots. The old pipe was replaced with new 8-inch and 6-inch piping. The existing pipe was much

too small to properly serve the development and was deteriorated and leaking. Like many others, the project is partially to correct existing deficiencies and partially to increase capacity to allow additional growth. The new piping is large enough to allow a 100% increase in users (800% capacity increase) however approximately 100 of the 150 lots are already occupied thus 67% of the project serves existing customers and 33% provides extra capacity for growth. This project is considered 33% SDC eligible.

Project 6: Parker Way

This project corrected extreme pressure and flow problems in an undeveloped area. The project was considered necessary to provide capacity and service for development and is 100% SDC eligible.

Project 8 and 9: SW 100th Court and SE 118th Street

These projects replaced undersized 2-inch piping with new 6-inch piping, however, are considered 0% SDC eligible since the new pipes were designed primarily to correct existing deficiencies.

Project 10: SE 145th Street

This project replaced undersized 2-inch piping with new 6-inch piping. The existing 2-inch pipe was too small to properly serve further development and the new pipe created a loop which will benefit a larger area that is directly served on the street. The new piping is enough to allow a 100% increase in users (800% capacity increase). This project is conservatively considered 50% SDC eligible.

Project 11: Toledo Pump Station Upgrade

The existing pumping equipment was designed to provide 400 gpm but in reality has sufficed to the current maximum day demands of 545 gpm on average. The equipment is now at full capacity and is past its expected useful life. New pumping equipment is planned to increase the capacity to 765 gpm to fully serve the projected 20-year population. The project increases the capacity by 220 gpm (29%) and this increase is entirely extra capacity for growth. The project is therefore 29% SDC eligible.

Project 12: Beaver Creek Pump Station Bypass/Abandonment

The project is not considered SDC eligible as it does not increase capacity for growth.

Project 13: York Pump Station Upgrade

The existing pumping equipment provides approximately 200 gpm. The equipment is now at full capacity and is past its expected useful life. New pumping equipment is planned to increase the capacity to 400 gpm to fully serve the projected 20-year population. The project increases the capacity by 100% and half this increase (50%) is extra capacity for growth and half is to replace existing capacity. The project is therefore 50% SDC eligible.

Project 14: East Piping to North End

This project adds a second feed to the entire north end of the District (everything north of SW 100th St.) and alleviates the bottleneck and vulnerability which occurs with the single 4,800 foot long 8-inch pipe along Highway 101. The project more than doubles the capacity (100% + increase) of water supply to the north however it is not entirely to create extra capacity for growth. It is estimated that the project can be considered half for reliability and vulnerability reductions and half for capacity building for future development. The project is therefore considered 50% SDC eligible.

Project 15: SE 116th St. to SE 98th St.

According to District staff this portion of pipeline has significant water loss. In an attempt to bring down unaccounted water in the District this 5,000 foot section of 8-inch pipe should be replaced with new 12-inch PVC piping. This project is meant to correct deficiencies in the pipe and cannot be directly related to any future growth, therefore, it is not SDC eligible.

Project 16: BAYSHORE – View Ridge – Cedar Crest

The Valley View Heights neighborhood pipelines are in need of replacement. A 6-inch trunk pipe and a 4-inch loop pipe should be replaced with an 8-inch PVC pipe. Then a 4-inch branch should be replaced with a 6-inch PVC pipe. Each of these pipes are deteriorating and are undersized for the neighborhood. This project will add capacity to the system, but there is only limited growth that will benefit from this improvement since approximately half the lots are already built out. This project will be 50% SDC eligible.

Project 17: BAYSHORE – Admiral Way to Marine View Drive

This project remedies flow restrictions and a vulnerable single pipe along the beach, however, the benefit primarily occurs in an area fully developed and does not necessarily create additional capacity for growth. The project is therefore not SDC eligible.

Project 18: SURFLAND – Hwy 101 to 73rd Street

This project will replace 1,400 feet of deteriorating and undersized pipe at the north end of the District. The first 900 feet are 4-inch AC piping then it transitions into an assumed 2-inch PVC pipe for the last 500 feet. This entire 1,400 foot pipeline will be replaced with 6-inch PVC pipe. This project is meant to correct deficiencies in the pipe and cannot be directly related to any future growth, therefore, it is not SDC eligible.

Project 19: Newport Intertie – PRV/Booster Station

Constructing an intertie between the City of Newport water system and the SRWD water system will allow water sharing between each group as needed in the future. This will not add additional capacity but instead just provide mainly for emergencies or shortages that may occur. This project will not be SDC eligible.

Project 20: Cross St. and NW Grandview St. Loop

This project is a continuation of project 3. This project creates a major loop in the center of the District service area by replacing undersized 2-inch piping with new 8-inch and 6-inch piping. The project also eliminates several dead-end pipes. The project improves flow for the entire southern half of the District and allow for new development over large areas. This project is conservatively estimated to be 50% SDC eligible.

Project 21: Art St., Park View St. and Line St. Loop

These projects create another major loop in the center of the District service area by replacing undersized 2-inch piping with new 8-inch piping. The projects also eliminate several dead-end pipes. The projects improve flows for the entire southern half of the District and allow for new development over large areas.

Approximately 88 lots are served directly along the pipe route and less than 40 lots are currently developed. These projects are considered to be 55% SDC eligible.

Project 22: Huckleberry and Blackberry Street

This project replaces undersized 2-inch piping with new 6-inch piping. The existing 2-inch pipe is too small to properly serve further development and approximately 20 of the 50 lots which could be directly served remain vacant. The project also creates a loop and eliminates a dead end which results in operation and maintenance savings. This project is considered 40% SDC eligible.

Project 23: NW Kona St. and Pali St.

These projects replace undersized 4-inch piping with new 6-inch pipe and primarily 8-inch pipe to allow adequate fire flows and reduce pressure problems. Since the area is mostly developed it is recommended that these projects not be considered capacity building. These projects will therefore not be considered SDC eligible.

Project 24: SE Chittum Drive

This project replaces undersized 6-inch piping with new 8-inch piping. The existing 6-inch pipe is too small to properly serve the development. Since the single 6-inch pipe feeds a large area, inadequate fire protection results. The 8-inch pipe allows for a 78% increase in capacity however the area is largely developed already. Therefore, this project is considered 0% SDC eligible.

Project 25: SW Brandt, SW Abalone Street

This project replaces undersized 2-inch piping with new 6-inch piping. The existing 2-inch pipe is too small to properly serve further development and the new pipe will create a loop. The new piping is enough to allow a 100% increase in users (800% capacity increase), however, only a 30% increase in EDUs served is possible in the area. This project is considered 30% SDC eligible.

Project 26 and 27: SE Cedar Street and SE Birch Street

These projects correct existing fire flow/pressure deficiencies and are not considered SDC eligible.

Project 28: HDD at Beaver Creek – Hwy 101

This project adds a second pipe that will cross Beaver Creek to address the vulnerability of the existing exposed pipe on the bridge which could be damaged by wave action. Even though the project doubles the capacity of the piping and improves service to the entire area to the south it does not double the number of EDU's which can be served. This project will therefore not be considered SDC eligible.

Project 29: Seal Rock St., Hwy 101 to Grandview St.

This project will replace approximately 1,000 feet of existing pipe with new 8-inch PVC pipe. The main purpose of this project is correct current deficiencies that are in the pipeline. The area that this project will affect is a mostly built out area. So even though this project will be an increase in pipe size it will not be considered SDC eligible.

Project 30: Beaver Creek Feasibility Study

The Beaver Creek Supply is a broad alternative requiring additional study to determine the specifics of its feasibility. This feasibility will discuss and lay out a plan to prepare for design and construction of the new raw water supply. This is for planning purposes and will be 100% SDC eligible.

Project 31: Other 2-inch Piping Replacements

The District has an additional 30,000 feet of undersized 2-inch piping scattered throughout the service area which is inadequate to serve new customers. In general, new 6" piping will be installed providing an 800% increase in capacity. It is difficult to individually access each section of pipe, however, it is appropriate to consider about 50% of the costs be beneficial to future growth and SDC eligible and 50% be considered maintenance and replacement of existing capacity.

Project 32: Cross Street Storage Tank

This project is entirely dedicated to create storage capacity for future growth and is 100% SDC eligible.

Project 33: Add Chlorine Booster to Newport Intertie

Due to the distance between the City of Newport WTP and the southern end of the SRWD, a chlorine booster will be needed in order to maintain adequate chlorine residual. This project will not be SDC eligible.

Project 34: SDC Methodology

Oregon law allows a utility service provider to use SDC revenues to pay for costs associated with complying with and administering SDC programs. Therefore development of the SDC methodology is 100% SDC eligible.

Projects 35, 36 and 37: Water System Master Planning Documents

Master planning efforts include assessment of existing facilities, their capacities and conditions, and the capabilities of the existing systems to provide service to existing and future customers. Master planning also includes efforts to predict the infrastructure needs associated with growth and development. Master planning efforts cover both existing facilities and expansion; therefore it is assumed that these projects are 100% SDC eligible.

3.6. Reimbursement SDC

As stated previously, Oregon Law includes provisions for a reimbursement SDC to be developed for projects that have been completed and that have remaining capacity available to service growth. The projects considered for Seal Rock are the most recent planning documents, this Methodology and the Water Master Plan documents, and various distribution system improvements as described in the previous section.

Each of these projects fall into the reimbursement category and can be applied to the SDC. Therefore, the potential reimbursement SDC is \$1,134.92 per EDU. The following table,

Table 3.6-1, shows the summary of the reimbursement SDC.

Table 3.6-1 – Water Reimbursement SDC Summary

Project No.	Project Description	SDC Eligible Cost
1	Distribution Piping - NW Lotus Lake Drive	\$312,496.81
2	Distribution Piping - NW Orcas Dr.	\$25,541.95
3	Distribution Piping - Quail Street, Old Coast Rd, Seagull Way Loop	\$226,729.38
4	Distribution Piping - Pacific Shores	\$116,292.24
6	Distribution Piping - Parker Way	\$20,744.82
7	Distribution Piping - Marsh Street	\$595.95
10	Distribution Piping - SE 145th Street	\$11,353.81
11	Toledo Pump Station Upgrade	\$12,462.00
13	York Pump Station Upgrade	\$87,450.33
14	Distribution Piping - East Piping to North End	\$499,127.37
34	SDC Methodology	\$19,961.00
35	Water System Master Plan	\$47,168.00
36	Water System Master Plan Scope Expansion	\$43,488.00
35	Water System Master Plan - Amendment No. 2	\$28,156.00
	Total Reimbursement Eligible Costs (A)	\$1,451,567.66
	Total Growth EDU's (B)	1,279
	Maximum Reimbursement Water SDC (A/B)	\$1,134.92

As projects are completed over time, they will need to be transitioned from improvement SDC projects to reimbursement SDC projects.

3.7. Improvement SDC

Calculation of the improvement SDC is based upon the methodology and the establishment of the SDC eligible project costs as outlined in preceding Sections 3.4 and 3.5.

Table 3.7-1 below illustrates the calculation used to establish the improvement SDC for the Seal Rock Water District. The maximum justifiable improvement SDC is \$2,396.41 per EDU.

Table 3.7-1 – Water Improvement SDC Summary

Project No.	Project Description	SDC Eligible Cost
16	Distribution Piping - BAYSHORE - View Ridge - Cedar Crest	\$242,749.50
20	Distribution Piping - Cross St. and NW Grandview St. Loop	\$122,738.75
21	Distribution Piping - Art St., Park View St., and Line Street Loop	\$355,867.88
22	Distribution Piping - Huckleberry and Blackberry Street	\$99,112.80
25	Distribution Piping - SW Brandt, SW Abalone St.	\$59,890.50
30	Beaver Creek Supply Feasibility Study	\$312,092.03
31	Other 2-Inch Piping Replacements	\$1,872,552.21
32	Cross Street Storage Tank (Water Surface 305')	\$938,947.09
	Total Improvement Eligible Costs (A)	\$3,065,003.67
	Total Growth EDU's (B)	1,279
	Maximum Improvement Water SDC (A/B)	\$2,396.41

3.8. SDC Credits – Water System

An analysis of potential SDC credits should be included as part of an SDC methodology. Credits may be appropriate to offset financing costs that will be paid by all system customers including new customers. Credits are also appropriate for developers who construct or otherwise provide improvements to the system that are part of the current CIP project list. A brief description of a few potential SDC credit scenarios is provided below.

3.8.1. Improvement Offset Credit

In the case of a developer completing some or all of a CIP project, the credit provided should be equal to the value of the improvement made, though the credit cannot exceed the amount of SDC that the developer would have been required to pay.

For example:

Assume that a developer undertakes a subdivision that would require him to pay \$100,000 in SDC fees for the water system. This same developer elects to or needs to construct a new waterline to service this development and this waterline is part of the CIP. Since the waterline is part of the water system CIP and the developer paid to construct the line, the developer is eligible to receive an SDC credit for the improvements that he completed. If we assume the project cost to install the waterline is around \$120,000, the developer is only eligible to receive SDC credits up to the \$100,000 that he would have paid as an SDC.

It should be noted that the determination of improvement offset credits requires judgment as development situations can vary. The District should maintain an open policy when working with developers to identify a fair and reasonable offset credit when it applies.

It should also be reiterated that offset credits are not available for improvements undertaken by a developer that do not appear on the CIP and are not part of the SDC methodology. The credits are also not available for improvements that benefit only a single developer or property.

3.8.2. Financing Credit – Project Costs and Potential Loan Amounts

Financing credits should be applied to SDC's so that new users who have been assessed an SDC do not end up paying twice due to new debt loads incurred to undertake improvements or portions of improvements intended to increase system capacity. As growth-related debt service may be repaid with SDC revenue and rate increases, it is critical that the users who have paid SDC's receive an appropriate credit for the present value of rate increases that will likely be imposed for the purposes of paying back debt.

Establishing a precise financing credit for SRWD is difficult as it is not currently known to what level the city will elect to undertake projects, how those projects will be funded, or what percentage of the project funding will require a rate increase.

When this information is available, SRWD should establish a credit schedule to adjust SDCs for new users to avoid a double-charge for funding improvements.

3.8.3. Present Worth Analysis of User Rate Increase and SDC Credits

It would be appropriate to provide a credit to new customers to offset the “double-dip” effects of paying an increased rate to payback a loan supporting the SDC eligible portion of a project in addition to paying the SDC itself. The following example will illustrate:

Assume the District undertakes a \$1,000,000 project to construct a new facility. It is determined that the project is 50% SDC eligible and the other half of the project will be paid through a loan. The terms of the loan are as follows:

*Term: 20 years (240 months)
Rate: 5%
Principal: \$1,000,000 with \$500,000 being SDC eligible
Number of EDU's setting rate of payback: Existing customer base or 640 EDU's*

Assuming the District obtains the \$1,000,000 loan, a monthly rate increase of around \$10.31 per EDU would be required. Approximately \$5.15 of that increase would be to cover the SDC eligible portion of the project. New customers would be charged an SDC to pay for their share of the SDC eligible portion of the project.

To avoid charging a rate increase in addition to an SDC, a present worth analysis of the \$5.15 portion of the rate increase should be completed and a credit established. The amount of the credit will vary depending on the period of time in the planning period that the new customer joins the system and begins paying the higher rates. A range of potential credits for this example scenario is discussed below:

- 1. A new customer joins the system early in the planning period and has nearly 20 years of increased rate payments in front of them. In this case, the present worth of a \$5.15 per month rate increase over 20 years (at 5% interest) is around \$780.*
- 2. A new customer joins the system in the middle of the planning period with only 10 years of increased payments in front of them. Under this scenario, the present worth of a \$5.15 rate increase over 10 years (at 5% interest) is around \$486.*
- 3. A new customer joins the system toward the end of the planning period with only 5 years remaining in the 20-year planning cycle. Under this scenario, the present worth of a \$5.15 rate increase over the remaining 5 years (at 5% interest) is around \$273.*

The amount of the credit that would be appropriate to offset the “double-dip” effect of a rate increase and an SDC charge varies with the following:

1. The amount of the loan and the resulting rate increase required to pay it back
2. The percentage of SDC eligibility for a specific project
3. The number of years remaining within the planning period or the remaining term left on the loan payback

Should the District elect to offer an SDC credit to offset a “double-dip” effect, a credit schedule should be established once a project is undertaken, a loan obtained, and a rate increase set to pay back the loan. A simple schedule can be established that varies based on years or months of time into the loan terms. When a new customer joins the system, the District can simply review the credit schedule for each affected project and total up each credit depending on the month that the new customer joins the system.

3.9. Water System SDC Summary

Section 3 has been developed to provide the Seal Rock Water District with the methodology needed to establish the maximum allowable SDC’s for the water distribution system. The following table provides a summary of the information utilized to complete this analysis:

Table 3.9-1 – Water SDC Summary (before compliance costs)

SDC Component	SDC Amount
Reimbursement Fee Per Section 3.6	\$1,134.92
Improvement Fee Per Section 3.7	\$2,396.41
Subtotal of Water SDC Fees	\$3,531.33

Based on the summary in Table 3.9.1, the maximum defensible SDC for the water system is around \$3,531 per EDU *without the application of an SDC credit or SDC compliance costs* for new growth in the SRWD.

It should be reiterated that this calculation represents the maximum SDC’s that can be assessed and defended with proper methodology. The District has the autonomy to charge less than this amount if desired. However, if adequate SDC fees are not collected and projects must be undertaken to satisfy growth requirements, funds will have to be obtained from other sources, such as from user rate increases.

3.10. SDC Assessment Schedule for Residential and Non-residential Customers

The SDC established in Section 3.9 above is based on a cost per EDU or cost per single residential dwelling. For most non-residential developments, a plan review must be performed to determine the equivalent number of EDU’s the development will require.

3.10.1. Residential and Non-residential Assessment Table

The following tables, Table 3.10.1-1 and Table 3.10.1-2, should be used to assess water system SDC’s for both residential and non-residential customers that wish to connect to the Seal Rock system.

Table 3.10.1-1 – Residential and Non-Residential Customers Assessment Schedule for Water System SDC’s

Enterprise	Number of EDU’s	Units
Apartments	0.75	per dwelling unit (EDU)
Apparel Store	0.2	per 1,000 ft ²
Athletic Club	0.3	per 1,000 ft ²
Auto Care	0.1	per service bay
Auto Parts Sales	0.2	per 1,000 ft ²
Auto Sales	0.2	per 1,000 ft ²
Bank, Drive-in	0.3	per 1,000 ft ²
Bank, Walk-in	0.3	per 1,000 ft ²
Building Material and Lumber Store	0.2	per 1,000 ft ²
Cab Company	0.2	per 1,000 ft ²
Car Wash, Automated	na	See meter sizing assessment in Table 3.10.1-2
Car Wash, Self Service	0.7	per stall
Cemetery	0.2	per 1,000 ft ²
Church	0.2	per 1,000 ft ²
Community/Junior College	1.0	Per 250 gross square ft ²
Convenience Market (Open 24 Hours)	0.2	per 1,000 ft ²
Convenience Market (Open 15-16 Hours)	0.2	per 1,000 ft ²
Convenience Market with Gasoline Pumps	0.2	per 1,000 ft ²
	0.1	per pump
Day Care	0.2	per student
Drinking Establishment	0.7	per 1,000 ft ²
Furniture Store	0.2	per 1,000 ft ²
Hardware/Paint	0.2	per 1,000 ft ²
Health/Fitness Club	0.3	per 1,000 ft ²
Hospital	1.0	See meter sizing assessment in Table 3.10.1-2
Industrial	1.0	See meter sizing assessment in Table 3.10.1-2
Library	0.2	per 1,000 ft ²
Lodge/Fraternal	0.3	per 1,000 ft ²
Manufacturing	0.2	per 1,000 ft ²
Medical/Dental Office	0.4	per 1,000 ft ²
Mini-warehouse Storage and warehouses	0.1	per 1,000 ft ²
Mobile Home Park	0.75	Per dwelling unit
Motel (not including laundry facilities or pools)	0.3	per room
Nursery Garden Center	0.2	per 1,000 ft ²
Nursing Home	0.3	per bed
Office Building	0.2	per 1,000 ft ²
Retail establishment, shopping center, grocery, etc.	0.2	per 1,000 ft ²
Post Office	0.2	per 1,000 ft ²
Quick Lubrication Vehicle Stop	0.1	per bay
Recreational Facility, Multipurpose	0.3	per 1,000 ft ²

Enterprise	Number of EDU's	Units
Restaurant, any type	4	per 1,000 ft ²
Schools	1.4	Per 250 gross square ft ²
Service Station	0.1	per bay
Service Station w/Convenience Market	0.1	per pump
	0.2	per 1,000 ft ²
Single Family Detached Housing	1	per house
Fish Processing Facility	na	See meter sizing assessment in Table 3.10.1-2
Pools and aquatic facilities	na	See meter sizing assessment in Table 3.10.1-2
Brewery	na	See meter sizing assessment in Table 3.10.1-2
Movie Theatre	0.3	per 100 seats
Commercial/Coin-Op Laundry	na	See meter sizing assessment in Table 3.10.1-2

Table 3.10.1-2 – Equivalency Table to Convert Meter Size to Equivalent Dwelling Units (EDU) for Customers not Included in Table 3.10.1-1 (AWWA Manual M-6)

Meter Size	EDU factor based on 5/8"	EDU factor based on 3/4"
5/8"	1.00	0.67
3/4"	1.50	1.00
1"	2.50	1.67
1-1/2"	5.00	3.33
2"	8.00	5.33
3"	15.00	10.00
4"	25.00	16.67
6"	50.00	33.33
8"	80.00	53.33
10"	115.00	76.67
12"	215.00	143.33

When a specific land use is not included in Table 3.10.1-1, or if the table does not fit the application well, Table 3.10.1-2 should be used to convert the meter size of a new customer into an equivalent EDU amount. Staff should review the new customer's land use plans carefully to ensure that the proper meter size is being utilized by the new property.

3.11. Potential Appeal Process for Calculation of Water System EDU's

While Table 3.10.1-1 and Table 3.10.1-2 include a wide assortment of residential and non-residential customer types and meter size estimates, along with an estimate of the number of EDU's that should be associated with a new customer, you cannot address all potential customers through simple tables. Furthermore, in some cases, the assessment system may not fairly represent a new customer's actual impact on the water system. This is often the case in the commercial or industrial developments where water use varies greatly from one business to another. In these cases, the District can allow for an appeal process so that new customers are assessed at a fair and reasonable rate.

The following provides a sample appeal process that could be utilized in Seal Rock when it is deemed appropriate:

A single EDU in the SRWD is assumed to be a water demand of 2,950 gallons per month on average. This value is lower than the public standard of around 7,500 gallons per month. For the purposes of this appeal, we will assume that the average EDU in the SRWD utilizes around 2,950 gallons of water per month.

If a new customer disagrees with the assessment that is calculated using Table 3.10.1-1, they may be allowed to appeal the assessment and request a trial period to track water use and compare their own water consumption (and therefore their equivalent water demand) to the average District water usage per EDU. In these cases, water use should be monitored for a full year to develop an average for the new customer's water bill. The average monthly water consumption of the new customer should be compared against the District's typical average. If this results in a lower EDU rating, an adjustment to the assessment could be made.

The District may wish to hold an SDC deposit during the appeal period. The amount of the deposit should be established by the Board. A reasonable deposit amount equal to one-half (1/2) the amount estimated using Table 3.10.1-1 may be appropriate. Depending on the results of the water use, the new user may either receive a refund of some of the SDC payment or be required to pay additional SDC costs.

A specific example of the above appeal process follows:

A new restaurant wishes to open in the Seal Rock Water District. Through a plan review, it is determined that the restaurant has 1,500 square feet of floor space. Based on Table 3.10.1-1 the assessment to the restaurant would be for 6 EDU's.

The restaurant owner protests and appeals this calculation. They are charged for 3 EDU's as a deposit and are allowed to track the water use of their first year in operation. At the end of this period, they produce water bills showing that they used an average of 12,000 gallons per month. This equates to around 4.2 EDU's of water use.

The restaurant is charged for an additional 1.2 EDU's worth of water system SDC's. Through the appeal process, the restaurant reduced the SDC assessment for water by 1.8 EDU's.

The inclusion of an appeal process will necessitate additional administration of individual customer SDC issues, and may increase the costs associated with SDC compliance and administration. Appeals should only be considered for non-residential customers. However, as the majority of the growth in Seal Rock will be in the residential sector, the potential for appeals from the non-residential sector is limited.

With regard to the residential sector, it is recommended that the District keep the assessment method as simple as possible. Each new home should be assessed on a single EDU basis with no adjustments to be made for square footage, fixture counts or other more complex methods.

4.0 Compliance Costs

Section 4

4.1. Introduction

Oregon law includes provisions that allow SDC revenues to be used to offset costs incurred by local governments in complying with the provisions of SDC law, including expenses associated with developing SDC methodologies, master planning, administration and updating of CIP's, and other compliance related costs. Recent amendments to the law require annual accounting of SDC expenditures, including revenue collected and attributed to the costs of compliance. The expenses of this annual accounting process are also considered to be related to the costs of compliance and can, therefore, be paid for with SDC revenues.

4.2. Compliance Costs

Unlike reimbursement and improvement SDC's, compliance costs do not represent another category of system development charges. For the SRWD, it is recommended that compliance costs be established as a "percentage" of the total SDC's that are likely to be assessed each year. The additional surcharge that is to be added to all SDC's will provide the funds necessary to administer each of the SDC programs and comply with current SDC laws and requirements.

The following sections provide a brief description of the components that will make up the compliance cost methodology.

4.2.1. Auditing/Accounting Costs

As mentioned previously, the SRWD will be required to complete annual accounting and auditing of all the SDC programs that are implemented. The District must account for all revenues collected through SDC assessments, as well as all expenses and project costs that are fully or partially paid for with SDC funds, and all other debits or credits from the SDC funds.

For the purposes of this Methodology, it will be assumed that auditing and accounting expenses will not exceed \$2,400 per year.

4.2.2. SDC Methodology and Administration

It will be assumed that the District will have to perform regular updates of their SDC methodology due to the following:

1. To account for increases in project costs (inflation)
2. Additions to the capital improvement plan (CIP)
3. Adjustments for project financing specifics as projects develop (i.e. interest rates, grants, etc.)
4. Population or growth rate changes
5. Other issues that may change the SDC charge.

These updates may be required, to a greater or lesser extent, on an annual basis.

While the cost of administering and updating the District's methodology may vary, it is recommended that the District plan on budgeting around \$3,000 per year for this purpose. This will include costs for consulting assistance as well as covering some of the administrative costs of District staff as they address SDC issues, determine assessments, track funds, and other administrative tasks each year.

It is also assumed that a full SDC methodology update will be required at least once each decade as planning efforts are updated. This major SDC methodology update may be required once every ten years and would ensure that the city's SDC methodology meets all current legal requirements as well as being coordinated with updated planning efforts and CIP's.

4.2.3. Infrastructure Planning Efforts

Most master planning and facilities efforts include a planning period of 20 years. However, in many cases, planning is updated before the end of the planning period. Changes in the District's needs, development pressures, regulatory changes, or other issues often prompt planning to be updated or repeated on a more regular basis than the planning period suggests.

For the purposes of establishing compliance costs, it is recommended that water system planning be repeated on a schedule of at least once every 10 years. It may be that a major planning effort is required in year 1 and a less involved planning effort or update is appropriate for year 10. In any event, the District should be collecting revenues through the planning process that will allow them to update their planning documents as required.

In figuring the reimbursement SDC in Section 3, it was determined that 100% of the Water Master Plan and the Amendment would be SDC eligible. Therefore, it can be argued that 100% of the future costs associated with planning should be considered SDC eligible. However, much of the future efforts that go into system planning consist of assessing existing facilities, their capacities and condition, and the capabilities of the existing systems to provide service to existing and future customers. The planning efforts also include efforts to predict the infrastructure needs associated with growth and development. Therefore, the compliance cost associated with infrastructure planning should be shared in part by the SDC programs and in part by the existing users in the system.

For the purposes of this analysis, it is recommended that 50% of the future planning costs be considered attributable to growth and are therefore, considered to be SDC eligible. The individual costs of these planning efforts are estimated in Table 4.2.5-1.

4.2.4. Total Estimated SDC Revenue

Since it was recommended that compliance costs should be charged as a percentage surcharge of SDC revenues, the amount of SDC revenue that is anticipated to be collected must be established.

For this calculation, we must make an assumption as to what the District will choose to charge for its SDC program. This may require adjustment once the final SDC charge is established. Once the annual compliance costs and annual revenue expected for SDC's is established, we can calculate the percentage surcharge that must be included to cover the annual compliance costs over and above the regular SDC revenues.

Based on historic growth in the District and the projections in the Water System Master Plan (2010), an average of 64 new EDU's per year can be anticipated. The maximum justifiable SDC is \$3,531.33 per EDU before compliance costs. Therefore, the estimated annual SDC revenue is \$225,828.57.

Table 4.2.6-1 below summarizes the estimated revenue expected within the water system.

4.2.5. Calculation of Compliance Expenses

The following table illustrates and summarizes the estimated compliance costs that will be associated with the proper administration of an SDC program in the Seal Rock Water District. These expenses include annual costs for accounting and administration as well as longer term costs for planning efforts.

Table 4.2.5-1 – Calculation of SDC Compliance Expenses

Compliance Activity	Estimated Cost	SDC Eligibility (%)	Frequency (years)	Annual \$
General Accounting/Administration Costs				
Auditing/Accounting	\$2,400	100	1	\$2,400
SDC Methodology Administration & Annual Adjustments	\$3,000	100	1	\$3,000
SDC Methodology Update	\$10,000	100	10	\$1,000
Water System Compliance Costs				
Water Master Planning	\$50,000	50	10	\$2,500
Subtotal of Annual Costs	\$65,400			\$8,900

Based on this analysis, it is estimated that it will require \$8,900/year to properly administer the entire water SDC program in the SRWD. This includes costs for planning as well as general administration.

4.2.6. Summary of SDC Revenue and Calculation of Compliance Surcharge

Within each section of this methodology, an effort was made to establish the growth potential, over a 20-year planning period. If we assume that growth occurs evenly over the planning period, we can assume a straight line growth rate and determine the annual growth in the water system.

If we then multiply the average cost per EDU by the growth expected, we can calculate the estimated annual revenue within the SRWD.

Table 4.2.6-1 below summarizes the estimated revenue and the compliance surcharge expected within the water system.

Table 4.2.6-1 – Calculation of Anticipated SDC Revenue and Cost Charge Percentage

Estimates of SDC Revenues	Added EDU's/year	SDC Charge/EDU	Annual Revenue
Estimated Annual Water SDC Revenues	63.95	\$3,531.33	\$225,828.57
Compliance Cost Charge (Annual Cost/Annual Revenue)			3.94%

By dividing the calculated compliance costs in Table 4.2.5-1 by the total estimated annual revenue in Table 4.2.6-1, we can calculate an appropriate SDC surcharge that is required to administer the SDC program in the SRWD.

Based on this analysis, it is recommended that compliance costs of approximately 3.94% of the SDC revenue be collected for the SDC program. On average, this surcharge should produce enough revenue annually to assist the District with the compliance and administration of the water SDC program.

APPENDIX A

APPENDIX B