

WATER & WASTEWATER SYSTEM DEVELOPMENT CHARGE METHODOLOGY



City of Cave Junction

Josephine County, Oregon

December 2013

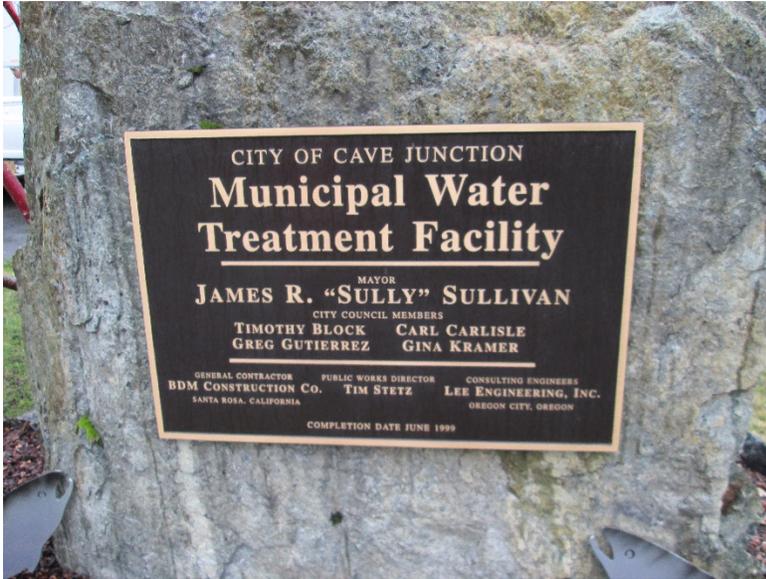
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EXPIRATION DATE: 12/31/14



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1.0 Executive Summary

Section 1

1.1. Background

The city of Cave Junction is located in Josephine County, Oregon approximately 30 miles southwest of Grants Pass. It is the gateway to the Oregon Caves National Monument and the commercial, service and cultural center for a rural community. Cave Junction is located within the Illinois River Valley and is nestled in the mountains known as the Siskiyou in the Klamath Range. The City is located along US Route 199 (Redwood Highway) and Oregon Route 46 (Caves Highway).

Recently Cave Junction took on the task of planning and updating the infrastructure throughout the city. The services of Civil West Engineering were secured to help with this process in January 2013. The first steps were to complete a new Water Master Plan and a Wastewater Facilities Plan that is currently in the process of completion. Each of the plans have compiled a Capital Improvement Plan (CIP) list.

This methodology was prepared to present and summarize the methods and systems that can be used to establish water and wastewater SDC's for the City of Cave Junction. This methodology will be able to give possible options for funding the CIP lists that are presented in each of the plans mentioned.

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

Both water and wastewater were analyzed in this methodology and recommendations were prepared for an appropriate and defensible SDC for each. A summary of that effort is provided below.

1.2.1. Water System SDC

The methodology utilized to establish a water system SDC is based on a capital improvement plan (CIP) developed from the City's current water master plan (Civil West, 2013). 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 City'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 of this Study.

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

SDC Component	SDC Amount
Improvement Fee Per Section 3.7	\$1,827.66
Reimbursement Fee Per Section 3.6	\$666.09
Subtotal of Water SDC Fees	\$2,493.75

1.2.2. Wastewater System SDC

The methodology utilized to establish a wastewater system SDC is based on a capital improvement plan (CIP) developed from the City’s current wastewater facilities plan (Civil West, 2013). The projects in the wastewater 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 City’s projected growth rates were used to establish the projected or future EDU’s that will require additional capacity in the system. The wastewater system SDC was established by dividing the SDC eligible project costs by the total projected growth in the system resulting in a maximum wastewater 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 wastewater system is provided below in Table 1.2.2-1. For detailed coverage of the wastewater system SDC methodology, see Section 4 of this Study.

Table 1.2.2-1 – Wastewater SDC Summary (before compliance costs)

SDC Component	SDC Amount
Improvement Fee Per Section 4.6	\$708.39
Reimbursement Fee Per Section 4.5	\$1,013.62
Subtotal of Wastewater SDC Fees	\$1,722.01

1.2.3. 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 City will face an annual compliance cost of around \$11,400 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 1.2.3-1.

Table 1.2.3-1 – SDC Compliance Expense Summary

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
Wastewater System Compliance Costs				
Wastewater Facilities Planning	\$50,000	50	10	\$2,500
Subtotal of Annual Costs	\$115,400			\$11,400

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 City is projecting to collect over the planning period.

Based on this analysis, it will require a surcharge of around 5.63% on all SDC's to collect adequate funds to properly administer an SDC program for the City of Cave Junction. Section 5.0 includes information and details on the establishment of SDC compliance costs.

1.2.4. SDC Summary for all Infrastructure Sectors

The following table, Table 1.2.4-1, summarizes the maximum defensible SDC's for each infrastructure element as developed within this methodology.

Table 1.2.4-1 – SDC Summary for each Sector

Infrastructure Category	Reimbursement SDC	Improvement SDC	Rounded SDC per EDU
Water System SDC Charge	\$666.09	\$1,827.66	\$2,494
Wastewater System SDC Charge	\$1,013.62	\$708.39	\$1,722
Totals	\$1,679.72	\$2,536.05	\$4,216
		Compliance Charge	\$237.50
		Total SDC Charge	\$4,453.26

As shown in the table, the sum of all of the separate SDC charges is around \$4,216 per EDU. With the addition of the compliance cost surcharge, the total SDC charge increases to \$4,453 per EDU.

It should be reiterated that this total charge does not include SDC credits which may be appropriate, depending on the funding mechanisms and other factors as projects move forward within the City.

1.2.5. Sample SDC Assessment

A simple example of SDC assessment would be for a new single family dwelling. The assessment for this new customer would be as follows:

Table 1.2.5-1 – Sample Residential SDC Assessment

SDC Sector	SDC Charge per EDU
Water System EDU	\$2,493.75
Wastewater System EDU	\$1,722.01
Subtotal	\$4,215.76
Compliance Cost Surcharge	\$237.50
Total Residential SDC	\$4,453.26

Therefore a total SDC for all of the SDC programs in Cave Junction would be around \$4,453 for an average new residential dwelling. This does not include any potential reductions for SDC credits that may be appropriate in Cave Junction depending on how the City undertakes the various CIP projects in the future.

1.2.6. SDC Ordinance and Methodologies

The SDC program in Cave Junction is to be established through the ordinance process. A single ordinance will set the ground work for all infrastructure sectors in the City. 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 City. 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 each SDC component. A resolution has been prepared for the water system SDC and sanitary sewer SDC.

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

Section 2

2.0 Introduction to SDC Methodology

2.1. Background

The City of Cave Junction owns and maintains a public infrastructure system that includes:

- A potable water system complete with a treatment plant, storage reservoirs, a pump station and a distribution system to deliver water to the customers of the city.
- A sanitary sewer system complete with a treatment plant, several pumping stations and a wastewater collection system.

The potable water system supplies the residents of Cave Junction and 127 accounts (approximately 305 residents) from the nearby Kerby Water District. The sanitary sewer system serves only the residents of Cave Junction.

The purpose of this study is to develop and discuss the methodology used to update the existing SDC programs for the infrastructure sectors listed above.

2.1.1. Summary of Previous SDC Assessment Schedule

In 1995 Lee Engineering created a Water Master Plan that included a brief SDC Methodology related to the water system. The most recent Wastewater Facilities Report was completed in 1994. The City of Cave Junction has assessed current SDCs based on the following tables, Table 2.1.1-1 and Table 2.1.1-2. From these tables we can see the current combined water and sewer SDC is \$5,135.

Table 2.1.1-1 – Water System Development Charges

Meter size	Fee to be Charged
5/8” – 3/4”	\$2,150.00
1”	\$5,375.00
1 1/2”	\$10,750.00
2”	\$17,200.00
3”	\$34,400.00
4”	\$53,750.00
6”	\$107,500.00

Table 2.1.1-2 – Sewer System Development Charges

Type of Establishment	Fee to be Charged
Single family residence or commercial up to 6”	\$2,985.00
Multiple units up to a 6” connection	\$2,985.00 first unit \$1,493.00 for each additional unit
Subdivision	\$2,985.00

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.

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 and
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.

A typical example of how a reimbursement SDC could be utilized is with a recently upgraded or constructed sanitary sewer pump station. Sanitary sewer pump stations are required to be designed and constructed to handle a future (20 or 25 year) projected capacity. The additional cost required for the construction of a new pump station that can not only handle existing flows but future projected flows becomes the SDC eligible portion of the project cost.

For example, if a pump station was built five years ago, but has additional capacity available for future growth, the value of the remaining unused capacity of the station can be calculated and assessed as a reimbursement SDC eligible project cost to all new customers that 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 fee 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 fee 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 fees 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 fees 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 5.0.

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 and for example, if a new wastewater 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 same public hearing.

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 City of Cave Junction as presently constituted:

- **Section 1 – Executive Summary.** This section provides a brief overview and summary of the SDC Plan 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 Cave Junction, related efforts for other infrastructure areas, 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 – Wastewater System SDC Methodology.** This section provides a detailed accounting of the wastewater system SDC methodology.

- **Section 5 – Compliance Costs.** This section provides a detailed accounting and methodology for the establishment of a compliance cost for the maintenance of SDC programs for all of the SDC methodologies.
- **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 City of Cave Junction. 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 city (per equivalent dwelling unit).

The city's Water System Master Plan (November 2013, Civil West Engineering Services, Inc.) has 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 treatment and distribution system in Cave Junction 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 City has a raw water intake station located on the East Fork of the Illinois River. This is located in close proximity to the treatment plant. Cave Junction has water rights on the river totaling 3.0 cubic feet per second (cfs) or around 1,347 gpm. However, only 1.0 cfs (449 gpm) is perfected. The rest of the current water supply comes from the Daisy Hill well. Currently 0.6 cfs is being pumped into the water system. This results in a total of 1.6 cfs (718 gpm) being used by the city.

The intake facilities were just recently constructed in 1998. Facilities consist of three stainless steel well inlet screen pipes laid four feet under the river bed. The screens are 16" in diameter. The three 16" pipes are reduced to three 12" pipes and pumped through a pump house that contains three vertical turbine pumps: two 15 hP (350 gpm) pumps and one 25 hP (700 gpm) pump.

The Daisy Hill well is located west of town. Typically the well is ran at a rate of 150-200 gpm and is primarily ran to augment the plant during peak months and on the weekends. The facility has been equipped with backup power generation and is fenced and secured. Overall, the well is in very good condition.

Treatment. The Cave Junction Water Treatment Plant is a conventional surface water treatment plant. Construction on the new facility was completed in 1999. The adjacent steel clearwell at the plant was also constructed in 1999. Primary plant control is through a SCADA control system. The plant has a maximum capacity of 2.0 million gallons per day or 1,389 gallons per minute.

There are six major components to the treatment plant: backwash lagoons (2), chemical building, sedimentation basins (2), operations building, filter basins (2) and the 500,000 gallon clearwell. The plant is operated and well maintained, and is currently in very good condition.

Distribution. Water leaves the plant and enter the distribution system through three distribution pumps. Water is stored in various reservoirs and then flows by gravity down into the system. Piping ranges in size, material, and age. The distribution system includes several reservoirs (discussed further below), a

booster pumping station and related appurtenances to deliver water to end users located within the city limits and the additional contract customers in Kerby.

Storage. The District operates three treated water storage tanks within the distribution system, totaling 2.3 MG. A summary of each tank is provided below:

S. Old Stage Tank (Reservoir #1) – Concrete tank constructed in 1971 or 1972. Total volume is 300,000 gallons.

Laurel Road Tank (Reservoir #3) – Glass fused steel constructed in 1991. Total volume is 500,000 gallons.

Laurel Road Tank (Reservoir #4) – Welded steel constructed in 1998. Total volume is 1.5 MG.

Booster Pump Station. The booster pump station is owned by the Kerby Water District. The main purpose for this station is to supply the required fire flows to the Kerby Water District customers. It has been rarely used since it was constructed.

3.2.2. Population and Population Projections

According to US Census data of 2010, the City of Cave Junction population increased from 1,363 people in 2000 to 1,883 in the year 2010. This indicates a population growth of 38% over the eleven year time period. Other 2010 US Census Data for Cave Junction includes:

- 2.30 persons per housing unit (total population / total housing units)
- 89% of housing units occupied
- 11% of housing units vacant

The following Table 3.2.2-1 summarizes the historic population for the City of Cave Junction over the last 50 years.

Table 3.2.2-1 - Historical Population Summary

Year	Population
1960	248
1970	415
1980	1,023
1990	1,126
2000	1,363
2010	1,883

According to US Census data of 2010, the population of Kerby was 595. Other 2010 US Census Data for Kerby includes:

- 2.40 persons per housing unit (total population / total housing units)
- 87% of housing units occupied
- 13% of housing units vacant

As of July 2013, the Cave Junction water system serviced 127 accounts within the Kerby Water District.

In 2007 Josephine County developed the coordinated growth number that was to be used throughout the county for future planning. This coordinated growth number was developed at a time of peak growth throughout the county. But due to the slowdown of new growth and the economic downturn compared to

the previous years, the city and county are in the process of updating the coordinated growth projection rates. For the purposes of this methodology the two agencies decided to move forward with a 2.50% growth annually.

Figure 3.2.2-1 illustrates in graphical form, the projected combined growth of the City of Cave Junction and the Kerby Water District.

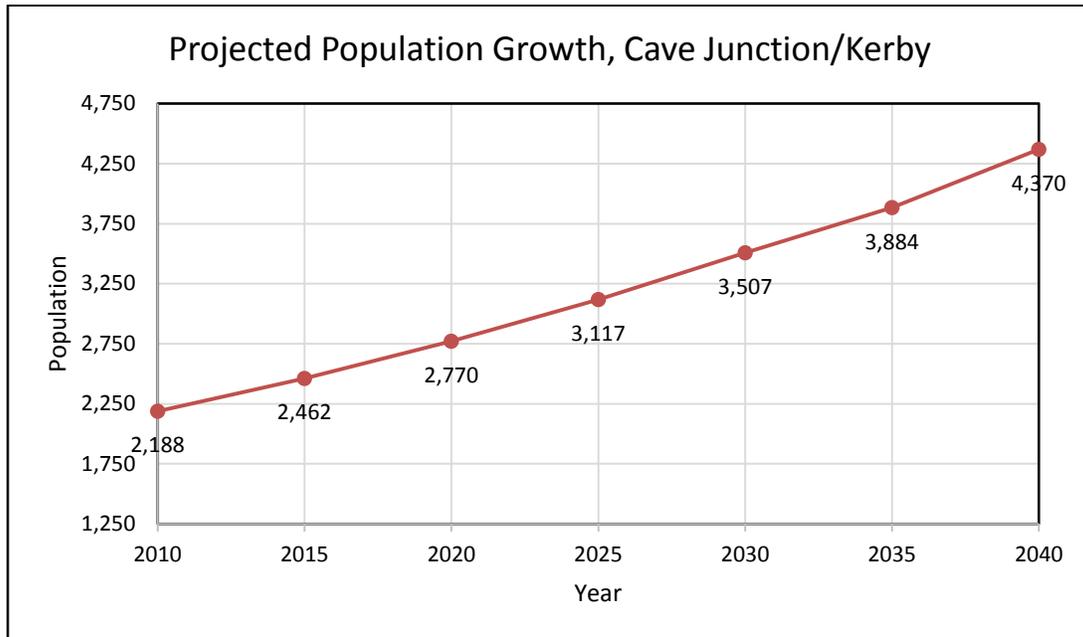


Figure 3.2.2-1 – Cave Junction 20-year Population Growth Projection

It is estimated that approximately 1,696 customers will be added to the city’s distribution system by the end of the 20-year planning period. A more detailed discussion of residential and commercial customers follows in the next section.

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) that 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. This logic assumes that all sectors in the community 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 city the meter data had to be modified slightly. These modifications allowed us to produce the most accurate analysis for Cave Junction. The first step was to remove all the categories except for the residential meters. This is due to the fact that the EDU analysis is based on residential water consumption, therefore, all other consumptions must be removed. Then the months of May-October were removed. We found that in these "summer" months there were a variety of unexplained or very high readings that were affecting the analysis. Using just the "winter" months, November-April, we were able to obtain much more consistent numbers with fewer data anomalies. This process was applied over the entire three year span of data that we had. A small portion of outliers, both high and low, were also removed.

Based on this analysis of the modified water sales records for the last 3 years, the average quantity of water sold to a typical single-family dwelling unit is 4,203 gallons per month. This volume sold per month becomes the basis for EDU calculations with 1 EDU = 4,203 gallons per month in metered sales. Other users can then be described as an equivalent number of EDUs based on their relative water consumption. For example, a commercial business that had an average metered consumption of 8,406 gallons per month uses twice the amount of water as the typical single-family dwelling and can be considered 2 EDUs.

After the equivalent EDU usage was determined above, the amount of EDUs in Cave Junction was determined. The EDU analysis that applies to this methodology follows Table 3.10.1-2, the equivalency factor table, found in Section 3.10. From the city water master plan (Civil West, 2013), current water meter sizes were converted into EDUs. This was done by multiplying the total meters in each category by their equivalent factor. Table 3.3-1 summarizes the meter sizes in Cave Junction and the calculations used to obtain the number of EDUs. Since the category for the "blank" sizes was significant in number it was assumed to be equivalent to the 3/4" factor.

Table 3.3-1 – Cave Junction water meter size summary

Water Meter Size	Total per Size	Equiv. factor	EDUs
3/4"	842	1.00	842
1"	45	1.67	75.15
1-1/2"	5	3.33	16.65
2"	11	5.33	58.63
3"	6	10.00	60
4"	2	16.67	33.34
6"	1	33.33	33.33
8"	1	53.33	53.33
Blank	158	1.00	158
		Total EDUs	1330.43

Once the current EDUs was determined the EDUs were projected through the current planning period. The growth rate was assumed at 2.5% which is what was used in the water master plan. The current and projected EDU analysis resulted as:

Cave Junction

2013 EDU Total	1,330
2035 EDU Total	2,290
Growth in EDU's	960

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 list or CIP. The CIP list will list 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. Projects that remain to be completed will form the basis for improvement SDC's.

3.4.1. Master CIP List

The 2013 Water Master Plan developed for Cave Junction established the CIP list shown in Table 3.4.1-1 below (Civil West, 2013). For the purpose of this methodology the possible reimbursement projects have also been added.

Table 3.4.1-1 – Cave Junction Water CIP list including Reimbursement options

Project No.	Project Description	Project Cost	Projected Build Date	Project Cost Date
1	Rockydale well field restoration	\$307,893.60	2013-2018	Oct-13
2	Media replacement in filter basins	\$83,382.19	2013-2018	Oct-13
3	Modify sedimentation basins	\$423,228.24	2013-2018	Oct-13
4	Replace WTP disinfection system	\$174,168.00	2013-2018	Oct-13
5	Install covers over sedimentation basins	\$123,275.52	2013-2018	Oct-13
6	Install parking pad at purchase station	\$9,564.48	2013-2018	Oct-13
7	Reservoir #1 maintenance	\$735,596.96	2013-2018	Oct-13
8	Reservoir #3 maintenance	\$100,958.40	2013-2018	Oct-13
9	Reservoir #4 maintenance	\$708,848.29	2013-2018	Oct-13
10	Clearwell maintenance	\$383,283.21	2013-2018	Oct-13
11	Investigation of well site near IVHS	\$78,375.60	2021-2025	Oct-13
12	Investigation of additional well at Daisy Hill	\$78,375.60	2021-2025	Oct-13
13	New 500,000 gallon reservoir	\$1,289,909.76	2021-2025	Oct-13
14	Alley water line replacement (Between Caves Ave. & Redwood)	\$89,452.68	2021-2025	Oct-13
15	Installation of additional fire hydrants	\$113,356.80	2021-2025	Oct-13
16	Junction Ave. water line replacement (AC)	\$431,875.24	2021-2025	Oct-13
17	Terrace Dr. water line replacement (AC)	\$82,485.96	2021-2025	Oct-13
18	Lister St. water line replacement (AC)	\$50,585.47	2021-2025	Oct-13
19	Alley water line replacement (AC)	\$45,484.42	2021-2025	Oct-13
20	Hussey Ave. water line replacement (AC)	\$121,360.26	2021-2025	Oct-13
21	Tracy Lane water line replacement (AC)	\$25,363.58	2021-2025	Oct-13
CIP List Totals (2013 WMP)		\$5,456,824.28		
22	SDC Methodology/Financial Evaluation	\$14,792.00	2013	2013
23	Water System Master Plan	\$69,952.00	2013	Completed

Project No.	Project Description	Project Cost	Projected Build Date	Project Cost Date
24	New Water Treatment Plant	\$1,029,093.00	1999	Completed
25	New Raw Water Intake Station	\$514,547.00	1999	Completed
TOTAL		\$7,085,208.28		

The CIP project list above indicates the date when the original project cost estimate was prepared. This will allow for future planning by using the appropriate Engineering News Record Index (ENR Index). For this Methodology the ENR Index used as current was October 2013, 9688.86. 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 projects completed or in progress, budget costs were used to determine SDC eligibility.

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: Rockydale well field restoration

This project will restore the existing well casings and well houses at the Rockydale well field. These wells were abandoned years ago and all equipment was removed and the casings were capped. Two of the three wells are expected to still be in working order and useable. All existing piping will have to be analyzed to determine if it is still sufficient and in good working condition. New piping will also have to be installed on the Illinois River Bridge. This project will add additional supply to the city system that will be needed for future expansion, therefore, this project is 100% SDC eligible.

Projects 2, 3, 4 and 5: WTP improvements

These four projects will address some needed improvements at the Water Treatment Plant. It will include filter media replacement, sedimentation modifications, replacing the disinfection system and a new parking pad at the purchase station. Each of these projects will be a benefit to the water system but will not add additional capacity. None of these projects will be SDC eligible.

Projects 7, 8, 9 and 10: Storage tank improvements

These four projects will accomplish some routine maintenance on each of the storage tanks in the city. The maintenance items include blasting, recoating, repairing and adding cathodic protection to each one. These are considered general maintenance items and make these projects not SDC eligible.

Project 11: Well site investigation near IVHS

The city has received some property near the Illinois Valley High School and would like to investigate the site for a possible well location in the future. This will help the city prepare for future demand as needed if it is determined that the location is a viable source of water. This project is 100% SDC eligible.

Project 12: Additional well investigation at Daisy Hill

Daisy Hill currently has one functioning well at the location. Currently the existing pump does not withdraw the full water right of 0.6 cfs. The city would like to investigate adding an additional well in order to use the full water right at this location. It will need to be determined if an additional well will affect the production of the current one though. This project will create more water supply for the city which will help in meeting their future demand, therefore, this project is 100% SDC eligible.

Project 13: New 500,000 gallon storage tank

The city currently has sufficient water storage for the amount of customers that they serve. Between the years 2025 and 2030 though they will run into a storage deficit. So prior to that time a new 500,000 gallon storage tank has been proposed in the CIP. This will solve the water deficit issue that the city will have. Since this is directly related to new growth this project is 100% SDC eligible.

Project 14: Alley water line replacement

In the alley between Caves Avenue and the Redwood Highway the city has a 2" galvanized iron water line. This line is undersized and will be replaced by an 8" PVC line to coincide with the water lines surrounding that part of town. Since this is within the core of the city center, it is anticipated that this line will not serve new development which makes this project not SDC eligible.

Project 15: Installing additional fire hydrants

In select areas of the city there is insufficient fire hydrant coverage. In order to comply with state standards for fire hydrant coverage the city needs to install 18 additional fire hydrants. These are at various locations throughout the city. This project is not SDC eligible.

Projects 16-21: Asbestos-Cement water line replacement

The remaining six projects on the CIP list are water line replacement of old existing asbestos-cement piping. Many of these water lines are undersized and reaching their maximum life expectancy since they were installed in the late 1940's and 1950's. Even though these projects will be upsizing the pipes it is mainly due to corrections and deficiencies in piping, not related to additional capacity needs. This project is not SDC eligible.

Project 22: SDC Methodology/Financial Evaluation

Oregon law allows a utility service provider to use SDC revenues to pay for costs associated with complying with and administering SDC programs. In this case the funding for these studies came through a grant which makes these costs ineligible for SDC reimbursement.

Project 23: Water System Master Plan

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. As with the SDC Methodology study, the Water Master Plan was funded through grant money which makes this cost ineligible for SDC reimbursement.

Project 24: New WTP completed in 1999

A new 2.0 MGD Water Treatment Plant was constructed in 1999 for the City of Cave Junction. Currently, the Maximum Day Demand (MDD) is 943,000 gallons. Therefore, the percentage of the existing plant that is used is 47%. That makes 53% of the construction cost of the plant reimbursement SDC eligible.

Project 25: New Raw Water Intake Station completed in 1999

A new 1.5 MGD raw water intake station was constructed in 1999 for the City of Cave Junction. Currently, the Maximum Day Demand (MDD) is 943,000 gallons. This translates into only 63% of the station being utilized currently. Therefore, 37% of the construction costs can be counted towards a reimbursement SDC.

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 two primary projects considered for Cave Junction are the Raw Water Intake Station and the Water Treatment Plant which were both completed in 1999. The funding for these projects were done through both grant and loan money. Since grant money cannot be considered as a reimbursement SDC, the loan portion of these projects is only considered here. The total amount of loan money was \$1,543,640.

The intake station has a capacity of 1.5 million gallons (MG) of which approximately 943,000 gallons is currently used during the maximum day demand (MDD) according to the 2013 water master plan. This translates to 37% as reimbursement SDC eligible. The water treatment plant has a capacity of 2.0 MG of which approximately 943,000 gallons are currently used. This translates to 53% as reimbursement SDC eligible.

The potential reimbursement SDC is therefore \$666.09 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
24	New Water Treatment Plant	\$448,411.31
25	New Raw Water Intake Station	\$191,036.14
Total Reimbursement Eligible Costs (A)		\$639,447.45
Total Growth EDU's (B)		960
Maximum Reimbursement Water SDC (A/B)		\$666.09

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 the preceding Sections 3.4 and 3.5.

Table 3.7-1 below illustrates the calculation used to establish the improvement SDC for the City of Cave Junction. The maximum justifiable improvement SDC is \$1,827.66 per EDU.

Table 3.7-1 – Water Improvement SDC Summary

Project No.	Project Description	SDC Eligible
1	Rockydale well field restoration	\$307,893.60
11	Investigation of well site near IVHS	\$78,375.60
12	Investigation of additional well at Daisy Hill	\$78,375.60
13	New 500,000 gallon reservoir	\$1,289,909.76
Total Improvement Eligible Costs (A)		\$1,754,554.56
Total Growth EDU's (B)		960
Maximum Improvement Water SDC (A/B)		\$1,827.66

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 city 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 SDCs 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 SDCs 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 Cave Junction 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, Cave Junction 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 City 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 City 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 City 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 City 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 City of Cave Junction with the methodology needed to establish the maximum allowable SDC’s for the water treatment and distribution system. The following table, Table 3.9-1, 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
Improvement Fee Per Section 3.7	\$1,827.66
Reimbursement Fee Per Section 3.6	\$666.09
Subtotal of Water SDC Fees	\$2,493.75

Based on the summary in Table 3.9-1, the maximum defensible SDC for the water system is around \$2,494 per EDU *without the application of an SDC credit or SDC compliance costs* for new growth in Cave Junction.

It should be reiterated that this calculation represents the maximum SDC’s that can be assessed and defended with proper methodology. The City 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 Cave Junction system:

Table 3.10.1-1 – Residential and Non-Residential Customers Assessment Schedule for Water and Wastewater 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

Enterprise	Number of EDU's	Units
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
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

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

*Per AWWA Manual M-6

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. Cave Junction uses the EDU factor based on 3/4" meter sizes. 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 city 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 Cave Junction when it is deemed appropriate:

A single EDU in Cave Junction is assumed to be a water demand of around 4,203 gallons per month on average. This value is lower than the public standard of around 7,500 gallons per month. This could be due to the fact that there are many part-time residents in the City, many older customers who use less water, and many homes with only one or two persons in the home. For the purposes of this appeal, we will assume that the average EDU in Cave Junction utilizes around 4,203 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 city water usage per EDU. In these cases, water use should be monitored between the months of November to April through the new customer's water bills. The average monthly water consumption of the new customer should be compared against the city's typical average. If this results in a lower EDU rating, an adjustment to the assessment could be made.

The city may wish to hold an SDC deposit during the appeal period. The amount of the deposit should be established by the city. 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 winter 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 Cave Junction. Through a plan review, it is determined that the restaurant has 2,000 square feet of floor space. Based on Table 3.10.1-1 the assessment to the restaurant would be for 8 EDU's.

The restaurant owner protests and appeals this calculation. They are charged for 4 EDU's as a deposit and are allowed to track the water use during the winter months of their first year in operation. At the end of this period, they produce water bills showing that they used an average of 20,000 gallons per month. This equates to around 5 EDU's of water use.

The restaurant is charged for an additional 1 EDU's worth of water system SDC's. Through the appeal process, the restaurant reduced the SDC assessment for water by a full 3 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. Residential customers should be assessed based on the recommendations in Table 3.10.1-1.

4.0 Wastewater System SDC Methodology

Section 4

4.1. Wastewater Collection System

This section describes in detail the calculations, background information, and methodology used to develop and identify the maximum defensible SDC for the City of Cave Junction wastewater system. This section will describe the existing and future capacity requirements of the system, as well as projects and estimated costs to address deficiencies and satisfy future capacity requirements.

Existing and future equivalent dwelling units for assessment of the SDC's, as described in Section 3 for the water system, will also be utilized in this Section for the wastewater system. A calculation of the maximum defensible SDC per EDU for the wastewater system is developed herein.

4.2. Wastewater System Overview

The City's Wastewater Facilities Plan (Civil West, 2013) was used to establish background planning for the wastewater system. The plan includes a capital improvement plan (CIP) that will be discussed later in this Section. The CIP list in the Facilities Plan did not need to be modified for this SDC methodology due to the recent completion of it.

4.2.1. Overall Wastewater System Description and Background

The existing wastewater facilities comprise the wastewater treatment plant and four (4) pump stations. Three (3) of the pump stations are owned by the city, while the fourth is only maintained by them. The collection system consists of approximately 14.2 miles of gravity pipe, 292 manholes and 48 clean outs.

The City of Cave Junction wastewater treatment plant is located in the northwest portion of the City, at the north end of Sawyer Avenue. The facility was originally constructed in 1963 as a series of stabilization and facultative lagoons with winter discharge and summer storage. The wastewater treatment facility was upgraded in 1977 with the addition of a Cantex package activated sludge plant. The lagoons were used for peak flow events and summer storage.

A new plant was designed and constructed in 1998. The wastewater treatment plant was designed to meet EPA Class 1 reliability standards. The 1998 plant remains in operation today. The plant receives and treats all the collected wastewater in the City. The facility also receives septage from local septic pumpers/haulers.

4.2.2. Service Population

The population that the wastewater system serves is slightly different than the water system population in Section 3.2. For the wastewater system the Kerby Water District was excluded since the city is only providing potable water to the residents of Kerby. Therefore, the population analysis and projections developed earlier will be modified for this section.

The proposed growth rate will still be 2.50%, while the beginning service population will be 1,883 residents. As this is projected over the planning period of the Facilities Plan, by year 2035 the wastewater system will be servicing 3,396 residents. Figure 4.2.2-1 below illustrates the growth that will be expected for the wastewater system.

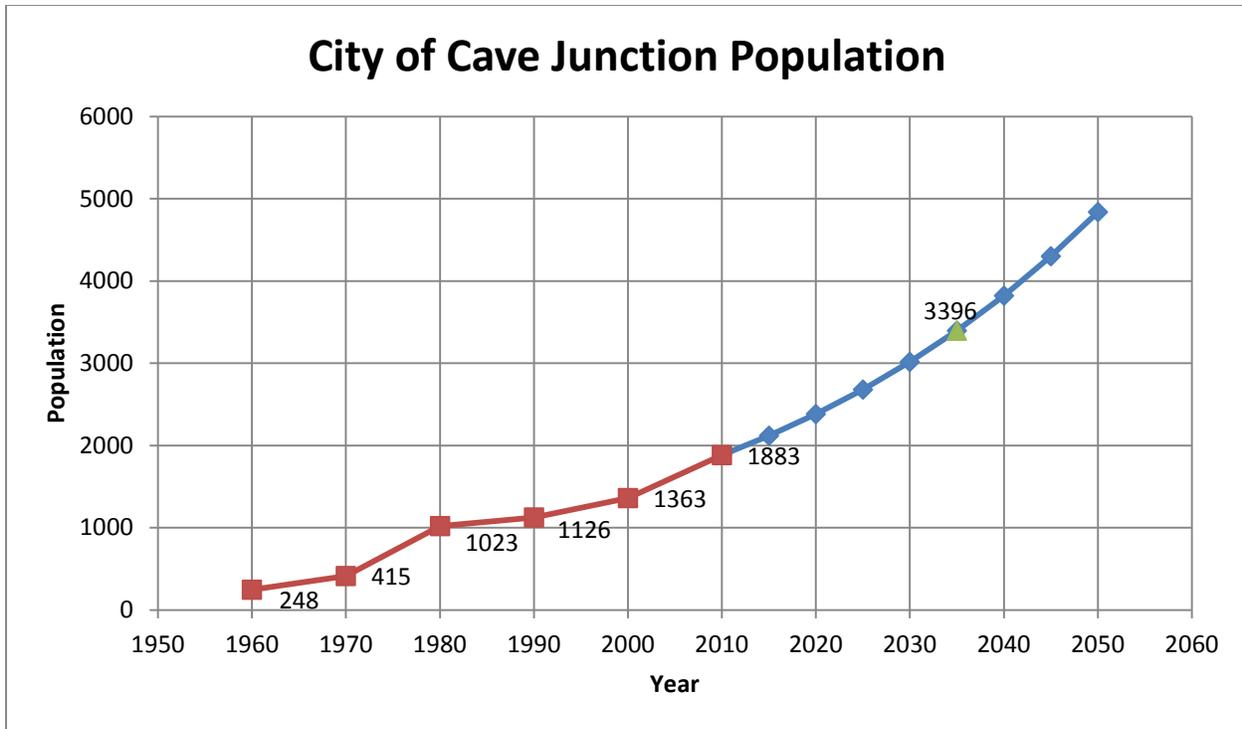


Figure 4.2.2-1 – Historical and projected population, wastewater system only

4.3. EDU Methodology and Projected Growth

Even though the population analysis differed between the water and wastewater system slightly, the EDU profile of the wastewater service population is based off the water system. Therefore, the EDU analysis developed in the water SDC methodology (Section 3.3) is to be used within the wastewater methodology also. A summary of the SDC methodology for the wastewater system is provided below:

<u>Cave Junction</u>	
2013 EDU Total	1,330
2035 EDU Total	2,290
Growth in EDU's	960

Based on these figures, the City should add around 48 new EDU's on average for each year of the planning period. This growth potential includes all residential, commercial, industrial, and other sectors of growth.

4.4. CIP Project Summary and Project Costs

The City's referenced Wastewater Facilities Plan includes detailed planning and project costs for many capital improvements in the wastewater system. This ranges from piping improvements to treatment plant upgrades.

The following sections provide information on the projects that appear on the City's current wastewater CIP.

4.4.1. Master CIP List

The 2013 Wastewater Facilities Plan developed for Cave Junction established the CIP list shown in Table 4.4.1-1 below (Civil West, 2013). For the purpose of this methodology the possible reimbursement projects have also been added.

Table 4.4.1-1 – Cave Junction Wastewater CIP list including Reimbursement options

Project No.	Project Description	Project Cost	Project Priority	Project Cost Date
1	Manhole Repair	\$58,000.00	1	Oct-13
2	Pipeline Rehabilitation	\$1,015,250.00	2	Oct-13
3	Replace Headworks Screen	\$436,450.00	10	Oct-13
4	RV Receiving Station	\$145,000.00	9	Oct-13
5	Septage Receiving Station	\$599,575.00	4	Oct-13
6	Additional Blower	\$203,000.00	8	Oct-13
7	Disinfection Upgrade	\$552,450.00	6	Oct-13
8	Alternate Effluent Disposal	\$913,500.00	7	Oct-13
9	Aerobic Digester Aerator Upgrades	\$401,650.00	5	Oct-13
10	Biosolids Disposal	\$188,500.00	3	Oct-13
CIP List Totals (2013 WWFP)		\$4,513,375.00		
11	Wastewater Facilities Master Plan	\$79,864.00	n/a	2013
12	Wastewater Treatment Plant	\$1,836,000.00	n/a	Completed
TOTAL		\$6,429,239.00		

4.4.2. Project Descriptions

Project 1: Manhole Repair

During flow mapping performed in April 2013, fourteen (14) manholes were found to be in need of repair or rehabilitation. These repairs range from small leaks to root intrusion. These repairs are at various locations throughout the city and are not SDC eligible. They relate directly to maintenance and will not provide additional supply.

Project 2: Mainline Rehabilitation

During the flow mapping performed in April 2013, eight (8) sections of mainline were identified to be in need of repair or rehabilitation. The sections of pipe were located based on increases in flow measured from one manhole to another. These repairs are at various locations throughout the city and are not SDC eligible. They relate directly to maintenance and will not provide additional supply.

Project 3: Replace Headworks Screen

The existing headworks automatic screen was installed in 2006. Operators have expressed maintenance concerns about the screen. Plant personnel have changed out the original bar screen for wider bar spacing because the narrow bar spacing removed biological elements from the waste stream. Unfortunately, the wider bar spacing seems to allow more inorganic material to pass. Plant operators would like to replace this screen with a new one. This is strictly maintenance to the plant and will not add any more capacity. It is not SDC eligible.

Project 4: RV Receiving Station

The City has expressed interest in accepting discharge from recreational vehicles (RV). Traffic on the highway through the City routinely includes RV and camper trailers. A City operated and maintained RV discharge station will protect the environment in and around the City. This project is adding discharged wastewater to the system but not creating any new capacity for future users within city limits. It is not SDC eligible.

Project 5: Septage Receiving Station

The treatment plant currently receives septage hauled by commercial pump trucks twice a week during limited hours. The septic wastewater is currently discharged to a manhole onsite immediately upstream of the existing headworks screens. The liquid is conveyed through the headworks to the second aeration basin where it is treated. This requires half of the plant aeration basins dedicated to treating septic waste.

The City needs to install a septic wastewater pretreatment facility. Even though this may help with capacity at the plant somewhat this project will not be SDC eligible. It cannot be eligible due to the fact that this will be built to serve customers outside the city limits and will not be a benefit to customers inside the city limits.

Project 6: Additional Blower

The population in the City of Cave Junction is expected to continue growing at an annual rate of 2.5%. As the loads of BOD and TSS increase, the need for sufficient air supply increases. The additional air may be supplied with the addition of a third blower. This project would be 100% SDC eligible since it is adding capacity to the system for future growth.

Project 7: Disinfection Upgrade

The existing ultra-violet (UV) disinfection units are approximately 15 years old. UV disinfection technology has improved since the units were installed. Repair and maintenance parts are difficult to obtain and in some cases are being salvaged from other installations. Additionally, the enclosed vessels tend to overheat during low flow periods.

The City should consider upgrading the older technology for new technology that is readily maintained and more energy efficient. It is anticipated that during the disinfection upgrade that the capacity was going to be doubled in order to plan for future growth. That doubling of disinfection will make this project 50% SDC eligible.

Project 8: Alternate Effluent Disposal

Currently, the wastewater treatment plant discharges effluent to the Illinois River during winter months in compliance with the NPDES permit. During summer months effluent is conveyed to a storage pond for recycled use on the golf course to the north of the treatment plant site. The golf course is privately owned and maintained. This causes a concern for the City, if potentially the golf course was lost as a place of discharge for effluent from the wastewater treatment plant, they would have no place to discharge during the summer months since they are not allowed to discharge to the river during that time.

Three alternatives were presented for this project. Each of these alternatives does not add additional capacity and therefore makes this project not SDC eligible.

Project 9: Aerobic Digester Aerator Upgrades

Original construction of the waste activated sludge aerobic digester included the installation of four (4) floating, surface aerator/mixers. Unfortunately, staff has struggled to keep even two (2) operational at any given time. Maintenance on the motors is difficult and dangerous. The floats do not provide sufficient buoyancy to keep a worker completely out of the liquid, so personnel attempt to remove the units from the basin for maintenance.

The availability of only two of the four original aerators compromises both mixing and aeration efficiency. The digester cannot provide its full benefits under this condition, and is operating at only partial capacity. Since currently only two of the aerator/mixers are operational, replacing these with new equipment allow the plant personnel to use all four. This will provide for the additional capacity that will be needed through the planning period. This project will be 50% SDC eligible.

Project 10: Biosolids Disposal

Upgrades of the plant in 1998 included construction of an aerobic digester for sludge produced at the plant and a facultative lagoon for storage of biosolids. The digester and lagoon have not been emptied since the construction. Operations personnel, using a boat and Sludge Judge instrument, estimate that the existing facultative lagoon contains 1.8% total solids occupying approximately 67% total capacity.

The aerobic digester was designed with a 60-day minimum solids retention time (SRT) to meet the EPA definition of Class B biosolids. The biosolids are then fed into the facultative storage lagoon by gravity. The facultative lagoon contains Class B, digested solids. With Class B biosolids, the City has several options for disposal. Since this is related to regular maintenance of the plant this project is not SDC eligible.

Project 11: Wastewater Facilities Master Plan

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. The Wastewater Facilities Master Plan was funded through grant money which makes this cost ineligible for SDC reimbursement.

Project 10: Wastewater Treatment Plant

A new 4.0 MGD Wastewater Treatment Plant was constructed in 1998 for the City of Cave Junction. According to the facilities plan (Civil West, 2013) the plant is used at a rate of 1.87 MGD. This shows that 47% of the plant is currently being used. Therefore, 53% of the construction costs can be counted towards a reimbursement SDC that benefits future growth.

4.5. 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 primary system component considered for Cave Junction is the Wastewater Treatment Plant which was completed in 1998. The funding for this project was done through both grant and loan money. Since grant money cannot be considered as a reimbursement SDC, the loan portion of these projects is only considered here. The total amount of loan money was \$1,836,000.

The treatment plant has a capacity of 4.0 million gallons (MG) of which approximately 1.87 MG are currently used according to the 2013 wastewater facilities plan. This translates to 53% of the cost as reimbursement SDC eligible.

The potential reimbursement SDC is therefore \$1,013.62 per EDU. The following table, Table 4.5-1, shows the summary of the reimbursement SDC.

Table 4.5-1 – Wastewater Reimbursement SDC Summary

Project No.	Project Description	SDC Eligible
12	Wastewater Treatment Plant	\$973,080.00
Total Reimbursement Eligible Costs (A)		\$973,080.00
Total Growth EDU's (B)		960
Maximum Reimbursement Water SDC (A/B)		\$1,013.62

4.6. 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 Section 4.4.

Table 4.6-1 below illustrates the calculation used to establish the improvement SDC for the City of Cave Junction. The maximum justifiable improvement SDC is \$708.39 per EDU.

Table 4.6-1 – Wastewater Improvement SDC Summary

Project No.	Project Description	SDC Eligible
6	Additional Blower	\$203,000.00
7	Disinfection Upgrade	\$276,225.00
9	Aerobic Digester Aerator Upgrades	\$200,825.00
Total Improvement Eligible Costs (A)		\$680,050.00
Total Growth EDU's (B)		960
Maximum Improvement Water SDC (A/B)		\$708.39

4.7. SDC Credits – Wastewater 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 that construct or otherwise provide improvements to the system that are part of the current CIP project list. A brief description of potential SDC credit scenarios is provided below.

4.7.1. 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 \$200,000 in SDC fees for the wastewater system. This same developer elects to construct a sewer pump

station to service his development and other potential growth areas. As the pump station is part of the City’s wastewater system CIP, the developer’s efforts make him eligible to receive an SDC credit for a portion of the improvements that he completed. If we assume the project cost to construct the wastewater pump station is around \$500,000, the developer is only eligible to receive SDC credits up to the \$200,000 that he would have paid into SDC’s.

It should be noted that determination of improvements offset credits can require some judgment as development situations can vary. The City should maintain an open policy when working with developers to identify fair and reasonable offset credits when they apply.

It should also be reiterated that offset credits are not available for improvements undertaken by the developer that do not appear on the City’s CIP and are not part of the City’s SDC methodology.

4.7.2. Financing Credit – Project Costs and Potential Loan Amounts

It may also be appropriate to provide a credit to offset the “double-dip” effect that could result from a new customer paying an SDC as well as increased rates to for the same improvement project.

Sections 3.8.2 and 3.8.3 of this methodology includes a detailed discussion about how a financing credit may be applied. Once the City undertakes a project and raises rates to pay for the project, they may consider developing an SDC credit schedule for each project undertaken. The amount of the credit will vary as discussed in Section 3.8.

4.8. Wastewater System SDC Summary

Section 4 has been developed to provide the City of Cave Junction with the methodology needed to establish the maximum allowable SDC’s for the water treatment and distribution system. The following table, Table 4.8-1, provides a summary of the information utilized to complete this analysis:

Table 4.8-1 – Wastewater SDC Summary (before compliance costs)

SDC Component	SDC Amount
Improvement Fee Per Section 4.6	\$708.39
Reimbursement Fee Per Section 4.5	\$1,013.62
Subtotal of Wastewater SDC Fees	\$1,722.01

Based on the summary in Table 4.8-1, the maximum defensible SDC for the water system is around \$1,722 per EDU without the application of an SDC credit or SDC compliance costs for new growth in Cave Junction.

It should be reiterated that this calculation represents the maximum SDC’s that can be assessed and defended with proper methodology. The City 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.

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

The SDC established in Section 4.8 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.

The tables in Section 3, Table 3.10.1-1 and Table 3.10.1-2, should be used to assess wastewater system SDC's for both residential and non-residential customers that wish to connect to the Cave Junction system.

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 wastewater use varies greatly from one business to another. In these cases, the city can allow for an appeal process so that new customers are assessed at a fair and reasonable rate. Refer to Section 3.11 for further information.

5.0 Compliance Costs

Section 5

5.1. 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.

5.2. Compliance Costs

Unlike reimbursement and improvement SDC's, compliance costs do not represent another category of system development charges. For the City of Cave Junction, 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.

5.2.1. Auditing/Accounting Costs

As mentioned previously, the city will be required to complete annual accounting and auditing of all of the SDC programs that are implemented. Cave Junction 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 Study, it will be assumed that auditing and accounting expenses will not exceed \$2,400 per year.

5.2.2. SDC Methodology and Administration

It will be assumed that the city 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 City's methodology may vary, it is recommended that the City 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 city 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.

5.2.3. 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 city 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 city should be collecting revenues through the planning process that will allow them to update their planning documents as required.

It can be argued that 100% of the costs associated with planning should be considered SDC eligible. However, much of the 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 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 5.2.5-1.

5.2.4. 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 city 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.

The growth component for each SDC program must be reviewed individually and an annual average growth unit established. For example, if it is determined that a water SDC program will add about 531 new EDU's over 20 years, it should be assumed that the system will add an average of 27 EDU's each year to the system. Therefore, the compliance costs associated with the water SDC program should be paid as a percentage of the SDC revenues collected from the 27 new EDU's added to the system in any given year.

A summary of this analysis is provided below in Table 5.2.5-1.

5.2.5. 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 City of Cave Junction. These expenses include annual costs for accounting and administration as well as longer term costs for planning efforts.

Table 5.2.5-1 – 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
Wastewater System Compliance Costs				
Wastewater Facilities Planning	\$50,000	50	10	\$2,500
Subtotal of Annual Costs	\$115,400			\$11,400

Based on this analysis, it is estimated to require \$11,400/year to properly administer the entire SDC program in Cave Junction. This includes costs for planning as well as general administration.

5.2.6. 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, for each infrastructure sector. If we assume that growth occurs evenly over the planning period, we can assume a straight line growth rate for each sector and determine the annual growth in each sector.

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

Table 5.2.6-1 below summarizes the estimated revenue expected within each sector.

Table 5.2.6-1 – Calculation of Anticipated SDC Revenue by Sector

Estimates of SDC Revenues	Added EDU's per yr.	SDC Charge per EDU	Annual Revenue
Estimated Annual Water SDC Revenues	48.00	\$2,493.75	\$119,700.10
Estimated Annual Wastewater SDC Revenues	48.00	\$1,722.01	\$82,656.50
Compliance Cost Charge (Annual Cost/Annual Revenue)			5.63%

By dividing the calculated compliance costs in Table 5.2.5-1 by the total estimated annual revenue in Table 5.2.6-1, we can calculate an appropriate SDC surcharge that is required to administer the SDC program in Cave Junction.

Based on this analysis, it is recommended that compliance costs of approximately 5.63% of the SDC revenue be collected for each of the individual SDC programs. On average, this surcharge should produce enough revenue annually to assist the City with the compliance and administration of all of the SDC programs.

It should be noted that compliance costs should be shared between all infrastructure sectors. Therefore, when SDC's are collected, the City must deposit an appropriate amount into each SDC account taking care to separate the individual SDC charges as well as an appropriate portion of the compliance costs into each separate account.

APPENDIX A

SYSTEM DEVELOPMENT CHARGES

223.297 Policy. The purpose of ORS 223.297 to 223.314 is to provide a uniform framework for the imposition of system development charges by local governments, to provide equitable funding for orderly growth and development in Oregon's communities and to establish that the charges may be used only for capital improvements. [1989 c.449 §1; 1991 c.902 §25; 2003 c.765 §1; 2003 c.802 §17]

Note: 223.297 to 223.314 were added to and made a part of 223.205 to 223.295 by legislative action, but were not added to and made a part of the Bancroft Bonding Act. See section 10, chapter 449, Oregon Laws 1989.

223.299 Definitions for ORS 223.297 to 223.314. As used in ORS 223.297 to 223.314:

(1)(a) "Capital improvement" means facilities or assets used for the following:

- (A) Water supply, treatment and distribution;
- (B) Waste water collection, transmission, treatment and disposal;
- (C) Drainage and flood control;
- (D) Transportation; or
- (E) Parks and recreation.

(b) "Capital improvement" does not include costs of the operation or routine maintenance of capital improvements.

(2) "Improvement fee" means a fee for costs associated with capital improvements to be constructed.

(3) "Reimbursement fee" means a fee for costs associated with capital improvements already constructed, or under construction when the fee is established, for which the local government determines that capacity exists.

(4)(a) "System development charge" means a reimbursement fee, an improvement fee or a combination thereof assessed or collected at the time of increased usage of a capital improvement or issuance of a development permit, building permit or connection to the capital improvement. "System development charge" includes that portion of a sewer or water system connection charge that is greater than the amount necessary to reimburse the local government for its average cost of inspecting and installing connections with water and sewer facilities.

(b) "System development charge" does not include any fees assessed or collected as part of a local improvement district or a charge in lieu of a local improvement district assessment, or the cost of complying with requirements or conditions imposed upon a land use decision, expedited land division or limited land use decision. [1989 c.449 §2; 1991 c.817 §29; 1991 c.902 §26; 1995 c.595 §28; 2003 c.765 §2a; 2003 c.802 §18]

Note: See note under 223.297.

223.300 [Repealed by 1975 c.642 §26]

223.301 Certain system development charges and methodologies prohibited. (1) As used in this section, "employer" means any person who contracts to pay remuneration for, and secures the right to direct and control the services of, any person.

(2) A local government may not establish or impose a system development charge that requires an employer to pay a reimbursement fee or an improvement fee based on:

- (a) The number of individuals hired by the employer after a specified date; or

(b) A methodology that assumes that costs are necessarily incurred for capital improvements when an employer hires an additional employee.

(3) A methodology set forth in an ordinance or resolution that establishes an improvement fee or a reimbursement fee shall not include or incorporate any method or system under which the payment of the fee or the amount of the fee is determined by the number of employees of an employer without regard to new construction, new development or new use of an existing structure by the employer. [1999 c.1098 §2; 2003 c.802 §19]

Note: See note under 223.297.

223.302 System development charges; use of revenues; review procedures. (1) Local governments are authorized to establish system development charges, but the revenues produced therefrom must be expended only in accordance with ORS 223.297 to 223.314. If a local government expends revenues from system development charges in violation of the limitations described in ORS 223.307, the local government shall replace the misspent amount with moneys derived from sources other than system development charges. Replacement moneys must be deposited in a fund designated for the system development charge revenues not later than one year following a determination that the funds were misspent.

(2) Local governments shall adopt administrative review procedures by which any citizen or other interested person may challenge an expenditure of system development charge revenues. Such procedures shall provide that such a challenge must be filed within two years of the expenditure of the system development charge revenues. The decision of the local government shall be judicially reviewed only as provided in ORS 34.010 to 34.100.

(3)(a) A local government must advise a person who makes a written objection to the calculation of a system development charge of the right to petition for review pursuant to ORS 34.010 to 34.100.

(b) If a local government has adopted an administrative review procedure for objections to the calculation of a system development charge, the local government shall provide adequate notice regarding the procedure for review to a person who makes a written objection to the calculation of a system development charge. [1989 c.449 §3; 1991 c.902 §27; 2001 c.662 §2; 2003 c.765 §3; 2003 c.802 §20]

Note: See note under 223.297.

223.304 Determination of amount of system development charges; methodology; credit allowed against charge; limitation of action contesting methodology for imposing charge; notification request. (1)(a) Reimbursement fees must be established or modified by ordinance or resolution setting forth a methodology that is, when applicable, based on:

(A) Ratemaking principles employed to finance publicly owned capital improvements;

(B) Prior contributions by existing users;

(C) Gifts or grants from federal or state government or private persons;

(D) The value of unused capacity available to future system users or the cost of the existing facilities; and

(E) Other relevant factors identified by the local government imposing the fee.

(b) The methodology for establishing or modifying a reimbursement fee must:

(A) Promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities.

(B) Be available for public inspection.

(2) Improvement fees must:

(a) Be established or modified by ordinance or resolution setting forth a methodology that is available for public inspection and demonstrates consideration of:

(A) The projected cost of the capital improvements identified in the plan and list adopted pursuant to ORS 223.309 that are needed to increase the capacity of the systems to which the fee is related; and

(B) The need for increased capacity in the system to which the fee is related that will be required to serve the demands placed on the system by future users.

(b) Be calculated to obtain the cost of capital improvements for the projected need for available system capacity for future users.

(3) A local government may establish and impose a system development charge that is a combination of a reimbursement fee and an improvement fee, if the methodology demonstrates that the charge is not based on providing the same system capacity.

(4) The ordinance or resolution that establishes or modifies an improvement fee shall also provide for a credit against such fee for the construction of a qualified public improvement. A "qualified public improvement" means a capital improvement that is required as a condition of development approval, identified in the plan and list adopted pursuant to ORS 223.309 and either:

(a) Not located on or contiguous to property that is the subject of development approval; or

(b) 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.

(5)(a) The credit provided for in subsection (4) of this section is only for the improvement fee charged for the type of improvement being constructed, and credit for qualified public improvements under subsection (4)(b) of this section may be granted only for the cost of that portion of such improvement that exceeds the local government's minimum standard facility size or capacity needed to serve the particular development project or property. The applicant shall have the burden of demonstrating that a particular improvement qualifies for credit under subsection (4)(b) of this section.

(b) A local government may deny the credit provided for in subsection (4) of this section if the local government demonstrates:

(A) That the application does not meet the requirements of subsection (4) of this section; or

(B) By reference to the list adopted pursuant to ORS 223.309, that the improvement for which credit is sought was not included in the plan and list adopted pursuant to ORS 223.309.

(c) When the construction of a qualified public improvement gives rise to a credit amount greater than the improvement fee that would otherwise be levied against the project receiving development approval, the excess credit may be applied against improvement fees that accrue in subsequent phases of the original development project. This subsection does not prohibit a local government from providing a greater credit, or from establishing a system providing for the transferability of credits, or from providing a credit for a capital improvement not identified in the plan and list adopted pursuant to ORS 223.309, or from providing a share of the cost of such improvement by other means, if a local government so chooses.

(d) Credits must be used in the time specified in the ordinance but not later than 10 years from the date the credit is given.

(6) Any local government that proposes to establish or modify a system development charge shall maintain a list of persons who have made a written request for notification prior to adoption or amendment of a methodology for any system development charge.

(7)(a) Written notice must be mailed to persons on the list at least 90 days prior to the first hearing to establish or modify a system development charge, and the methodology supporting the system development charge must be available at least 60 days prior to the first hearing. The failure of a person on the list to receive a

notice that was mailed does not invalidate the action of the local government. The local government may periodically delete names from the list, but at least 30 days prior to removing a name from the list shall notify the person whose name is to be deleted that a new written request for notification is required if the person wishes to remain on the notification list.

(b) Legal action intended to contest the methodology used for calculating a system development charge may not be filed after 60 days following adoption or modification of the system development charge ordinance or resolution by the local government. A person shall request judicial review of the methodology used for calculating a system development charge only as provided in ORS 34.010 to 34.100.

(8) A change in the amount of a reimbursement fee or an improvement fee is not a modification of the system development charge methodology if the change in amount is based on:

(a) A change in the cost of materials, labor or real property applied to projects or project capacity as set forth on the list adopted pursuant to ORS 223.309; or

(b) The periodic application of one or more specific cost indexes or other periodic data sources. A specific cost index or periodic data source must be:

(A) A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property or a combination of the three;

(B) Published by a recognized organization or agency that produces the index or data source for reasons that are independent of the system development charge methodology; and

(C) Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order. [1989 c.449 §4; 1991 c.902 §28; 1993 c.804 §20; 2001 c.662 §3; 2003 c.765 §§4a,5a; 2003 c.802 §21]

Note: See note under 223.297.

223.305 [Repealed by 1971 c.325 §1]

223.307 Authorized expenditure of system development charges. (1) Reimbursement fees may be spent only on capital improvements associated with the systems for which the fees are assessed including expenditures relating to repayment of indebtedness.

(2) Improvement fees may be spent only on capacity increasing capital improvements, including expenditures relating to repayment of debt for such improvements. 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. The portion of the improvements funded by improvement fees must be related to the need for increased capacity to provide service for future users.

(3) System development charges may not be expended for costs associated with the construction of administrative office facilities that are more than an incidental part of other capital improvements or for the expenses of the operation or maintenance of the facilities constructed with system development charge revenues.

(4) Any capital improvement being funded wholly or in part with system development charge revenues must be included in the plan and list adopted by a local government pursuant to ORS 223.309.

(5) Notwithstanding subsections (1) and (2) of this section, system development charge revenues may be expended on the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures. [1989 c.449 §5; 1991 c.902 §29; 2003 c.765 §6; 2003 c.802 §22]

Note: See note under 223.297.

223.309 Preparation of plan for capital improvements financed by system development charges; modification. (1) Prior to the establishment of a system development charge by ordinance or resolution, a local government shall prepare a capital improvement plan, public facilities plan, master plan or comparable plan that includes a list of the capital improvements that the local government intends to fund, in whole or in part, with revenues from an improvement fee and the estimated cost, timing and percentage of costs eligible to be funded with revenues from the improvement fee for each improvement.

(2) A local government that has prepared a plan and the list described in subsection (1) of this section may modify the plan and list at any time. If a system development charge will be increased by a proposed modification of the list to include a capacity increasing capital improvement, as described in ORS 223.307 (2):

(a) The local government shall provide, at least 30 days prior to the adoption of the modification, notice of the proposed modification to the persons who have requested written notice under ORS 223.304 (6).

(b) The local government shall hold a public hearing if the local government receives a written request for a hearing on the proposed modification within seven days of the date the proposed modification is scheduled for adoption.

(c) Notwithstanding ORS 294.160, a public hearing is not required if the local government does not receive a written request for a hearing.

(d) The decision of a local government to increase the system development charge by modifying the list may be judicially reviewed only as provided in ORS 34.010 to 34.100. [1989 c.449 §6; 1991 c.902 §30; 2001 c.662 §4; 2003 c.765 §7a; 2003 c.802 §23]

Note: See note under 223.297.

223.310 [Amended by 1957 c.397 §3; repealed by 1971 c.325 §1]

223.311 Deposit of system development charge revenues; annual accounting. (1) System development charge revenues must be deposited in accounts designated for such moneys. The local government shall provide an annual accounting, to be completed by January 1 of each year, for system development charges showing the total amount of system development charge revenues collected for each system and the projects that were funded in the previous fiscal year.

(2) The local government shall include in the annual accounting:

(a) A list of the amount spent on each project funded, in whole or in part, with system development charge revenues; and

(b) The amount of revenue collected by the local government from system development charges and attributed to the costs of complying with the provisions of ORS 223.297 to 223.314, as described in ORS 223.307. [1989 c.449 §7; 1991 c.902 §31; 2001 c.662 §5; 2003 c.765 §8a; 2003 c.802 §24]

Note: See note under 223.297.

223.312 [1957 c.95 §4; repealed by 1971 c.325 §1]

223.313 Application of ORS 223.297 to 223.314. (1) ORS 223.297 to 223.314 shall apply only to system development charges in effect on or after July 1, 1991.

(2) The provisions of ORS 223.297 to 223.314 shall not be applicable if they are construed to impair bond obligations for which system development charges have been pledged or to impair the ability of local

governments to issue new bonds or other financing as provided by law for improvements allowed under ORS 223.297 to 223.314. [1989 c.449 §8; 1991 c.902 §32; 2003 c.802 §25]

Note: See note under 223.297.

223.314 Establishment or modification of system development charge not a land use decision. The establishment, modification or implementation of a system development charge, or a plan or list adopted pursuant to ORS 223.309, or any modification of a plan or list, is not a land use decision pursuant to ORS chapters 195 and 197. [1989 c.449 §9; 2001 c.662 §6; 2003 c.765 §9]

Note: See note under 223.297.

APPENDIX B

2010 LOC System Development Charges Survey

WATER SDCs

CITY WATER SDCs - CHARGES FOR EXAMPLE DEVELOPMENTS (see p. 2 for development specifications)

City	EXAMPLE SDC AMOUNT (\$)						Other Fee Type
	RESIDENTIAL DEVELOPMENT			COMMERCIAL DEVELOPMENT			
	Improvement	Reimbursement	Other Fee	Improvement	Reimbursement	Other Fee	
Albany	1,748	293		9,317	1,560		
Amity	1,629	774		13,031	6,195		
Ashland	3,751	1,457		384	16,115		
Aumsville	3,651	(total)		19,460	(total)		
Aurora	3,420	733		3,420	733		
Bandon	5,184	1,362		27,474	7,220		
Beaverton (1)	1,377	1,803		7,561	8,340		
Bend	2,993	1,527		15,864	8,092		
Brookings	1,598	304	38	8,470	1,611	202	Admin. Fee
Cannon Beach (2)	1,536			1,536			
Carlton	4,217	1,826	266	28,126	12,177	1,774	Compliance Fee
Clatskanie	1,250			1,500			
Columbia City	1,869	2,258		9,959	12,038		
Cornelius (3)	3,823			21,616			
Corvallis	688	374		2,753	1,496		
Cottage Grove	486			1,945			
Creswell	4,142	884	251	28,994	7,072	1,803	5% Admin. Fee

(1) Other districts implement and collect a water SDC for developments within the city. The city only collects this city SDC. Only one SDC is charged to a development depending on service boundaries. (See list on p. 21)

(2) Commercial water SDCs could be greater than the residential SDCs based upon fixture units.

(3) In addition to the city water SDC, the city also collects a water SDC for another service provider/district. (See list on p. 21)

City	EXAMPLE SDC AMOUNT (\$)						Other Fee Type
	RESIDENTIAL DEVELOPMENT			COMMERCIAL DEVELOPMENT			
	Improvement	Reimbursement	Other Fee	Improvement	Reimbursement	Other Fee	
Dayton	240	3,393		639	9,049		
Depoe Bay	1,229	819		9,832	6,552		
Dufur	1,215			1,215			
Elgin	1,800			1,800			
Estacada	1,840	2,000		14,220	13,082		
Gaston ⁽⁴⁾	2,059			2,059			
Glendale		2,040			10,873		
Gold Hill	2,130			17,040			
Grants Pass	2,321			18,572			
Halsey		1,165			4,550		
Hillsboro	5,588			44,494			
Hood River	2,272	313		12,117	1,669		
Independence	2,357			43,589			
Jefferson		63			63		
John Day	853	988		8,189	9,485		
Klamath Falls	2,371 (total)			18,968 (total)			Compliance Fee
Lafayette	2,386	179		Not Available			
Lake Oswego ⁽⁵⁾	1,423	1,055		9,482	7,033		
Madras ⁽⁵⁾	771			6,168			
Monroe		6,675	267		26,700	1,068	4% Admin. Fee
Mt. Angel	2,338		195	Not Available			Admin. Fee
Myrtle Creek	6,257			50,056			
Myrtle Point	1,500			1,500			

(4) In addition to the city water SDC, the city also collects a water SDC for another service provider/district. (See list on p. 21)

(5) Other districts implement and collect a water SDC for developments within the city. The city only collects this city SDC. Only one SDC is charged to a development depending on service boundaries. (See list on p. 21)

City	EXAMPLE SDC AMOUNT (\$)						Other Fee Type
	RESIDENTIAL DEVELOPMENT			COMMERCIAL DEVELOPMENT			
	Improvement	Reimbursement	Other Fee	Improvement	Reimbursement	Other Fee	
Nehalem	1,256	1,979		10,048	15,832		
Newberg	4,154	1,240		22,013	6,575		
North Plains ⁽⁶⁾	3,817			3,817			
Oakland		2,393	540		19,144	1,420	Connection/Meter
Ontario				7,800			
Phoenix ⁽⁶⁾	3,407	62	132	47,030	855	1,830	Admin. Fee
Port Orford	7,380			39,337			
Portland		2,565			13,508		
Reedsport	4,330 (total)			5,196 (total)			
Riddle	1,639	188	500	13,112	1,504	1,400	Installation Fee
Rogue River	4,648			37,184			
Roseburg		1,920	77		19,200	768	4% Admin. Fee (\$2,500 max.)
Salem	3,332	909	50	17,390	5,812	963	Compliance Fee
Sandy	1,525 (total)			12,203 (total)			
Scotts Mills	7,843						
Seaside	2,873			5,324			
Sheridan	4,236			7,059			
Siletz ⁽⁷⁾	800	962		800	962		
Sisters	2,053			8,211			
Sodaville ⁽⁸⁾		1,500	450		3,000	450	Not Available
St. Helens	2,530 (total)			11,714 (total)			Small Admin. Fee

(6) In addition to the city water SDC, the city also collects a water SDC for another service provider/district. (See list on p. 21)

(7) The SDC for this example commercial development would be the same as the residential SDC. There are other commercial classifications that would pay a different amount.

(8) The residential SDC amount is for a gravity feed system. The commercial SDC amount is for a pressurized system. SDCs are calculated by systems and it does not matter if the development is residential or commercial.

City	EXAMPLE SDC AMOUNT (\$)						Other Fee Type
	RESIDENTIAL DEVELOPMENT			COMMERCIAL DEVELOPMENT			
	Improvement	Reimbursement	Other Fee	Improvement	Reimbursement	Other Fee	
St. Paul	8,600			8,600			
Stayton	1,664	821		8,869	4,376		
Sublimity	2,370			9,498			
Sutherlin	2,069	1,174	65	10,966	6,222	343	Admin. Fee
Sweet Home	478	737		7,232	11,142		
The Dalles	2,317			16,219			
Tigard ⁽⁹⁾	1,480	561	722	11,840	4,480	5,776	Higher Elevation
Tillamook ⁽¹⁰⁾	3,149			25,192			
Toledo	1,694	21		11,861	147		
Troutdale	1,345 (total)			7,129 (total)			
Tualatin	3,115			25,147			
Turner	875	1,394		7,000	11,152		
Veneta	1,937		77	15,492		620	4% Admin. Fee
Vernonia	2,269						
Waldport ⁽¹¹⁾	321	2,739		2,568	21,912		
West Linn ⁽¹²⁾	5,218	438	147	41,744	3,504	1,176	Admin. Fee
Westfir		300			300		
Wilsonville	4,392	44		10,978	111		
Wood Village	2,109			11,242			
Yachats	2,049	1,270	144	16,389	10,157	1,149	Admin. Fee
Yamhill	3,295			3,295			

(9) This additional fee only applies to developments that are located at higher elevations, such as the Bull Mountain area.

(10) The residential rate is based on a 5/8" water meter.

(11) The amount listed is the city SDC. Other districts implement and collect a water SDC for developments within the city. The city only collects this city SDC. Only one SDC is charged to a development depending on service boundaries. (See list on p. 21)

(12) In addition to the city water SDC, the city also collects a water SDC for another service provider/district. (See list on p. 21)

OTHER WATER SDCs - CHARGES FOR EXAMPLE DEVELOPMENTS (see p. 2 for development specifications)

CITY COLLECTS SDC FOR ANOTHER SERVICE PROVIDER/DISTRICT

City ⁽¹³⁾	OTHER PROVIDER/DISTRICT	OTHER SERVICE PROVIDER/DISTRICT SDC	
		RESIDENTIAL DEVELOPMENT	COMMERCIAL DEVELOPMENT
Cornelius	City of Hillsboro	1,588	12,676
Gaston	City of Hillsboro	Not Available	Not Available
North Plains	Joint Water Commission	2,881	2,881
Phoenix	Medford Water Commission	1,476	15,796
West Linn ⁽¹⁴⁾	South Fork Water Board	2,021	10,777

ANOTHER SERVICE PROVIDER/DISTRICT COLLECTS SDCs ON DEVELOPMENT WITHIN THE CITY

City	OTHER SERVICE PROVIDER/DISTRICT SDC <i>(city does not collect nor receive any revenue)</i>
Beaverton ⁽¹⁵⁾	Tualatin Valley Water District; West Slope Water District & Raleigh Hills Water District
Canby	Canby Utility
Eugene	Eugene Water & Electric Board
Happy Valley	Sunrise Water Authority
Lake Oswego ⁽¹⁵⁾	Lake Grove Water District & Rivergrove Water Districts
Madras ⁽¹⁵⁾	Deschutes Valley Water District
Waldport ⁽¹⁵⁾	Seal Rock Water District & Southwest Lincoln Co. Water Dist.

(13) For all of these cities, the other provider's SDC are in addition to the city's water SDC.

(14) West Linn noted it retains a nominal percentage of the sewer district's SDC as an administrative fee. Other cities may do this as well but did not note this in the survey.

(15) The city also has a water SDC. Only one SDC is charged to a development depending on service boundaries.

2010 LOC System Development Charges Survey

WASTEWATER SDCs

CITY WASTEWATER SDCs - CHARGES FOR EXAMPLE DEVELOPMENTS (see p. 2 for development specifications)

City	EXAMPLE SDC AMOUNT (\$)						Other Fee Type
	RESIDENTIAL DEVELOPMENT			COMMERCIAL DEVELOPMENT			
	Improvement	Reimbursement	Other Fee	Improvement	Reimbursement	Other Fee	
Albany ⁽¹⁾	2,296	106		12,696	106		
Amity	1,012	4,210		8,094	33,679		
Ashland	824	790		1,624	6,323		
Aumsville	4,855 (total)			25,877 (total)			
Aurora	738	1,294		738	1,294		
Bandon	1,434	948		2,008	1,327		
Bend	1,699	1,141		52,283	35,117		
Brookings	2,742	5,681	168	3,356	6,953	206	Admin. Fee
Canby	643	1,928		6,428	19,282		
Cannon Beach ⁽²⁾	1,580			1,580			
Carlton	5,102		633	34,030		4,222	Compliance Fee
Clatskanie	1,500			1,600			
Columbia City ⁽³⁾	473	1,150		1,263	3,072		
Cornelius ⁽³⁾	4,450			17,800			
Corvallis	2,562	218		10,982	933		
Cottage Grove	730			2,919			

(1) For the commercial wastewater SDC calculation, fixture units were converted to fixtures.

(2) The commercial wastewater SDCs could be higher than the residential SDCs based upon fixture units.

(3) In addition to the city wastewater SDC, the city also collects a wastewater SDC for another service provider/district. (See list on p. 26)

City	EXAMPLE SDC AMOUNT (\$)						Other Fee Type
	RESIDENTIAL DEVELOPMENT			COMMERCIAL DEVELOPMENT			
	Improvement	Reimbursement	Other Fee	Improvement	Reimbursement	Other Fee	
Creswell ⁽⁴⁾	3,050	1,470	226	16,257	7,835	1,205	5% Admin. Fee
Dayton	483	782		1,288	2,085		
Dayville	1,115			1,115			
Depoe Bay	769	682		6,152	5,456		
Dufur	950			950			
Elgin	1,800			1,800			
Estacada	1,687	1,519		10,800	11,995		
Eugene ⁽⁵⁾	1,445	570		17,467	11,505		
Gold Hill	1,703			1,703			
Grants Pass	2,455			7,856			
Halsey		780			2,550		
Hood River	753	655		4,014	3,493		
Independence	3,445			65,702			
Jefferson	7,340	181		7,340	181		
John Day	3,385	830		32,496	7,968		
Klamath Falls		1,956			1,956		
Lafayette	3,621	99		Not Available			
Lake Oswego ⁽⁶⁾	1,758	500		11,721	3,335		
Madras	3,844	790		30,755	6,317		

(4) The improvement fee is for treatment. The reimbursement fee is for collection.

(5) In addition to the city wastewater SDC, Eugene collects a regional SDC for the Metropolitan Wastewater Management Commission (MWWMC). The SDC amount listed reflects the total for both SDCs.

(6) The amount listed is the city SDC. Other districts implement and collect a wastewater SDC for developments within the city. The city only collects this city SDC. Only one SDC is charged to a development depending on service boundaries. (See list on p. 26)

City	EXAMPLE SDC AMOUNT (\$)						Other Fee Type
	RESIDENTIAL DEVELOPMENT			COMMERCIAL DEVELOPMENT			
	Improvement	Reimbursement	Other Fee	Improvement	Reimbursement	Other Fee	
McMinnville	2,870			11,480			
Monroe		4,490	180		17,960	719	4% Admin. Fee
Mt. Angel	1,250		50	Not Available		Not Available	Admin. Fee
Myrtle Creek	2,412			2,412			
Myrtle Point	7,800			7,800			
Newberg	4,860	256	120	17,693	931	120	Admin. Fee
Oakland		2,695	300		10,969	8,000	Connection/Meter
Ontario				3,848			
Port Orford	382	3,983		2,030	19,866		
Portland		4,089			21,794		
Reedsport	4,000 (total)			4,800 (total)			
Riddle	3,000			3,000			
Rogue River	1,353			10,824			
Salem	1,976	908	50	10,998	6,137	480	Compliance Fee
Sandy	1,834 (total)			24,453 (total)			
Seaside	4,882			26,021			
Shady Cove	510	3,035	195	19,584	116,544	7,488	5.5% Admin. Fee
Sheridan	2,671			4,451			
Siletz ⁽⁷⁾	263	2,108		263	2,108		
Sisters	2,968			11,870			
Springfield ⁽⁸⁾	2,930	527	259	19,354	9,594	1,854	Compliance Fee

(7) The SDC for this example commercial development would be the same as the residential SDC. There are other commercial classifications that would pay a different amount.

(8) In addition to the city wastewater SDC, Springfield collects a regional SDC for Metropolitan Wastewater Management Commission (MWWMC). The SDC amount listed reflects the total for both SDCs. The compliance fee is a MWWMC fee.

City	EXAMPLE SDC AMOUNT (\$)						Other Fee Type
	RESIDENTIAL DEVELOPMENT			COMMERCIAL DEVELOPMENT			
	Improvement	Reimbursement	Other Fee	Improvement	Reimbursement	Other Fee	
St. Helens	3,738 (total)			17,307 (total)			Small Admin. Fee
St. Paul	4,500			4,500			
Stayton	3,074	464		16,387	2,474		
Sublimity	3,370			11,275			
Sutherlin	257			257 per EDU			
Sweet Home		624			9,439		
Tangent	3,542			42,504			
The Dalles	1,789			19,679			
Tillamook	1,225			1,600			
Toledo	1,939	270		13,573	1,891		
Troutdale (9)	4,495 (total)			27,105 (total)			
Turner		2,002			16,016		
Veneta	3,670	1,084	190	26,813	11,219	1,521	4% Admin. Fee
Vernonia	2,957						
Waldport	321	2,739		3,840	20,000		
West Linn (10)	2,191	563	101	17,534	4,505	807	Admin. Fee
Westfir		300			300		
Wilsonville	2,783	1,370		7,793	3,839		
Wood Village	7,512			40,042			
Yachats		5,138	222		41,105	1,777	Admin. Fee
Yamhill	1,697			1,697			

(9) In the commercial calculation, the average flow rate of 180 gallons per day was used for the equivalent of 1 residential unit.

(10) In addition to the city wastewater SDC, the city also collects a wastewater SDC for another service provider/district. (See list on p. 26)

OTHER WASTEWATER SDCs - CHARGES FOR EXAMPLE DEVELOPMENTS (see p. 2 for development specifications)

CITY COLLECTS SDC FOR ANOTHER SERVICE PROVIDER/DISTRICT

City ⁽¹¹⁾⁽¹²⁾	OTHER PROVIDER/DISTRICT	OTHER SERVICE PROVIDER/DISTRICT SDC	
		RESIDENTIAL DEVELOPMENT	COMMERCIAL DEVELOPMENT
Beaverton	Clean Water Services	4,100	16,400
Columbia City	City of St. Helens	Not Available	Not Available
Cornelius	Clean Water Services	4,100	16,400
Eugene	Metro. Wastewater Management Commission	City and Regional Total on p. 23	City and Regional Total on p. 23
Hillsboro	Clean Water Services	4,100	16,400
Springfield	Metro. Wastewater Management Commission	City and Regional Total on p. 24	City and Regional Total on p. 24
Tigard	Clean Water Services	4,100	4,100/EDU
Tualatin	Clean Water Services	3,600	14,400
West Linn	Tri-City Service District	2,020	2,020/EDU

ANOTHER SERVICE PROVIDER/DISTRICT COLLECTS SDCs ON DEVELOPMENT WITHIN THE CITY

City	OTHER SERVICE PROVIDER/DISTRICT SDC <i>(city does not collect nor receive any revenue)</i>
Happy Valley	Clackamas County
Lake Oswego ⁽¹³⁾	Clean Water Services
Nehalem	Nehalem Bay Wastewater Agency
North Plains	Clean Water Services
Phoenix	Rogue Valley Sewer Services
Roseburg ⁽¹⁴⁾	Roseburg Sanitary Authority

- (11) For Columbia City, Cornelius, Eugene, Springfield and West Linn, the other provider's SDC are in addition to the city's wastewater SDC. Beaverton, Hillsboro, Tigard and Tualatin do not have a city wastewater SDC.
- (12) Beaverton, Hillsboro, Tigard, Tualatin, Springfield, and West Linn all noted they retain a nominal percentage of the wastewater district's SDC as an administrative fee. Other cities may do this as well but did not note this in the survey.
- (13) The city also has a wastewater SDC. Only one SDC is charged to a development depending on service boundaries.
- (14) The city may collect SDCs for the Roseburg Sanitary Authority if the customers prefers to pay all at once. The city receives none of the revenue.