City of Newport

LINCOLN COUNTY, OREGON

PUBLIC INFRASTRUCTURE SYSTEM DEVELOPMENT CHARGE METHODOLOGY

September 2007

DRAFT

H B H
Consulting
Engineers

Table of Contents

APPENDICES

Section 1

1.0 Executive Summary

1.1 Background

In the fall of 2006, the City of Newport voted to update their system development charge (SDC's) program for the various public infrastructure components in the City. HBH Consulting Engineers, Inc. was authorized to prepare SDC methodology for the water and sewer systems in September of 2006.

Once HBH was authorized to begin, the City appointed an SDC task force made up of key members of the community. A kickoff meeting and presentation was held on October 30, 2006 where staff and members of the SDC task force were briefed on the SDC methodology update project.

While the City had some planning documents in place for all of the infrastructure sectors, not all of the planning was up to date. For each infrastructure sector, special accommodations had to be made. A description of these accommodations is provided within each infrastructure section of this methodology.

This methodology was prepared to present and summarize the methods and systems that have been used to establish public infrastructure SDC's for the City of Newport.

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

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 (CH2M Hill, 1988) and bridge planning developed in this methodology. 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 adopted growth rate 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 were calculated to eliminate the potential for double 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. For detailed coverage of the water system SDC methodology, see Section 3 of this Study.

Table 1.2.1 – Water System SDC Summary
City of Newport

SDC Component	SDC Amount
Improvement Fee	
Per Section 3.7	$3,576.11
Reimbursement Fee	
Per Section 3.6	$117.97
Subtotal of Water SDC Fees	**$3,694.08**
Credit Summary	
Upper Range Credit (100% Financing Credit)	$813
Mid Range Credit (75% Financing Credit)	$610
Mid Range Credit (50% Fincancing Credit)	$407
Low Range Credit (25% Financing Credit)	$203

1.2.2 Wastewater System SDC

The methodology utilized to establish a wastewater system SDC relies on capital improvement projects developed in the City's current facilities plan (Fuller & Morris, 1995) along with some bridge planning included within this methodology. 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 adopted growth rate were used to establish the projected or future EDU's that will require additional capacity in the system. The SDC was then calculated by dividing the eligible project costs by the estimated growth potential within the City's wastewater system.

Credits were then calculated to eliminate the potential for double 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 wastewater SDC is provided below in Table 1.2.2. Detailed information on the wastewater system SDC for Newport is provided in Section 4 of this methodology.

Table 1.2.2 – Wastewater System SDC Summary
City of Newport

SDC Component	SDC Amount
Improvement Fee	
Per Section 4.6	$2,038.80
Reimbursement Fee	
Per Section 4.5	$1,169.12
Subtotal of Wastewater SDC Fees per EDU	**$3,207.91**
Credit Summary	
Upper Range Credit (100% Financing Credit)	$731
Mid Range Credit (75% Financing Credit)	$548
Mid Range Credit (50% Fincancing Credit)	$365
Low Range Credit (25% Financing Credit)	$183

1.2.3 Storm Drain System SDC

This plan includes a methodology for the development of a stormwater SDC for the City of Newport. The methodology relies upon planning development in the City's 1990 Storm Sewer Facilities Plan (CH2M Hill) and the South Beach Storm Water Master Plan (SHN, 2004). Capital projects from these plans were used to establish a CIP for the storm water system.

Growth potential in the stormwater sector was based upon impervious surface methodology. A study of recent residential development confirmed that a typical residential dwelling in Newport accounts for approximately 2,727 square feet of impervious surfaces. Therefore, it was determined that a single EDU is equal to 2,727 square feet of impervious surface.

By using adopted growth rates and conversions to impervious surface, a value was established for growth potential in the storm drainage system within the planning period.

The SDC charge for the storm drainage system was calculated by dividing the SDC eligible project costs by the growth potential within the system.

A summary of the storm drainage SDC is provided below in Table 1.2.3. A detailed analysis of the storm drainage SDC methodology is provided within Section 5 of this methodology.

Table 1.2.3 – Storm Drainage SDC Methodology Summary
City of Newport

SDC Component	SDC Amount
Improvement Fee	
$/EDU	**$692**
$/square foot	**$0.25**
Reimbursement Fee	$0
Credit Summary	NA

1.2.4 Transportation System SDC

This plan includes a methodology for the establishment of a transportation system SDC for the City of Newport. The methodology relies on capital improvement projects developed within the City's current TSP (Parson's Brinkerhoff Quade & Douglas, Inc. , 1997). Careful analysis and staff input was utilized to determine the SDC eligible portion of each project for consideration in the SDC calculation.

An analysis of growth potential was developed within this methodology using the other infrastructure sectors growth potential for internal trip generation growth and an estimate of external trip generation growth. Furthermore, the Institute of Transportation Engineer's (ITE) trip generation table was used to normalize trip generation for many different land use types to a typical residential dwelling. This allowed for the use of common EDU methodology to calculate growth potential within the system.

The transportation SDC was calculated by dividing the SDC eligible project costs by the growth potential in the system. A summary of the transportation SDC is provided below in Table 1.2.4. A detailed analysis of the storm drainage SDC methodology is provided within Section 6 of this methodology.

Table 1.2.4 – Transportation System SDC Summary
City of Newport

SDC Component	SDC Amount
Improvement Fee	
Per Section 6.7	$802.79
Reimbursement Fee	
Per Section 6.6	$94.92
Subtotal of Transportation SDC Fees per typical EDU	**$897.71**
Credit Summary	na

1.2.5 Parks

This plan includes a methodology for the establishment of an SDC for the City of Newport Parks Department. As the City does not currently have a parks master plan, this methodology includes significant bridge planning. With input from parks management staff, a parks CIP was developed including capital improvement projects for the parks department over the planning period. With the assistance of parks management staff, the SDC eligibility of each project was determined and a total SDC eligible project cost calculated.

The growth potential in the parks system was determined by estimating the growth in lodging facilities. This includes residential housing, motels, hotels, time shares, condos, and other land uses associated with housing people either on a permanent or part-time basis. The logic centers around the idea that pressure on the parks facilities will increase as people move to the area to live or as facilities are constructed to accommodate visitors to the City.

The parks SDC was calculated by dividing the SDC eligible project cost by the growth potential of the parks system.

Table 1.2.5 below summarizes the parks SDC as developed within this methodology. A detailed analysis of the parks SDC for the City of Newport is provided in Section 7 of this plan.

Table 1.2.5 – Parks SDC Summary
City of Newport

SDC Component	SDC Amount
Improvement Fee $/EDU	**$4,713.95**
Reimbursement Fee	$0
Credit Summary	NA

Table 1.2.5 represents the maximum defendable SDC for the parks system in Newport. However, the SDC task force felt that the SDC charge was too high and elected to recommend a reduction for the parks SDC charge. The task force recommended a reduction factor of 50% for the parks SDC resulting in the recommended charge shown in Table 1.2.6 below.

Table 1.2.6 – Reduced Parks SDC Recommendation
City of Newport

Description	SDC Amount
Parks SDC	**$4,713.95**
Parks SDC Reduction Percentage	50%
Adjusted Parks SDC / EDU	**$2,356.98**

1.2.6 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 $56,750 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 1.2.6.a.

Table 1.2.6.a – SDC Compliance Expense Summary

Compliance Activity	Estimated Cost	SDC Eligibility (%)	Frequency (years)	Annual $
General Accounting/Administration Costs				
Auditing/Accounting	$5,000	100%	1	$5,000
SDC Methodology Administration & Annual Adjustments	$10,000	100%	1	$10,000
SDC Methodology Update	$65,000	100%	10	$6,500
Wastewater SDC Compliance Costs				
Wastewater Facilities Planning/Master Planning	$250,000	50%	10	$12,500
Water System Compliance Costs				
Water Master Planning	$100,000	50%	10	$5,000
Water Conservation and Management Planning	$50,000	50%	20	$1,250
Storm Drain Compliance Costs				
Storm Drain Master Planning	$150,000	50%	20	$3,750
Parks Compliance Costs				
Parks Master Planning	$75,000	50%	10	$3,750
Transportation Compliance Costs				
Transportation Master Planning (TSP)	$180,000	50%	10	$9,000
Subtotal of Annual Costs	**$885,000**			**$56,750**

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. By using average growth rates over the planning period, table 1.2.6.b below summarizes the anticipated revenues that are expected for all SDC sectors.

Table 1.2.6.b – SDC Revenue Estimate Summary

Estimates of SDC Revenues	Added EDU's EDU's/yr	SDC Charge per EDU	Annual Revenue
Estimated Annual Wastewater SDC Revenues	142.43	$3,207.91	$456,887.38
Estimated Annual Water SDC Revenues	142.43	$3,694.08	$526,130.22
Estimated Annual Storm Drainage SDC Revenues	142.43	$692.10	$98,572.18
Estimated Annual Parks SDC Revenues	52.18	$2,356.98	$122,985.88
Estimated Annual Transportation SDC Revenues	170.91	$897.71	$153,426.98
Total Estimated SDC Revenue			**$1,358,002.65**
Compliance Cost Charge (Annual cost/Annual Revenue)			**4.18%**

Based on this analysis, it will require a surcharge of around 4% on all SDC's to collect adequate funds to properly administer an SDC program for the City of Newport.

Section 8.0 includes information and details on the establishment of SDC compliance costs.

1.2.7 SDC Summary for all Infrastructure Sectors

The following table summarizes the maximum defendable SDC's for each infrastructure element as developed within this methodology.

Table 1.2.7 – Summary of SDC's for each Infrastructure Sector

Infrastructure Category	Reimbursement SDC	Improvement SDC	Total SDC per EDU	Rounded SDC per EDU
	SDC	SDC	per EDU	per EDU
Water System SDC Charge	$117.97	$3,576.11	$3,694.08	$3,694
Wastewater System SDC Charge	$1,169.12	$2,038.80	$3,207.91	$3,208
Storm Drainage System SDC Charge	$0.00	$692.10	$692.10	$692
Transportation System SDC Charge	$94.92	$802.79	$897.71	$898
Parks System SDC Charge	$0.00	$2,356.98	$2,356.98	$2,357
Totals	**$1,382.00**	**$9,466.77**	**$10,848.78**	**$10,849**
			Compliance Charge	**$453.36**
			Total SDC Charge	**$11,302.14**

As shown in the table, the sum of all of the separate SDC charges is around $10,849 per EDU. With the addition of the compliance cost surcharge, the total SDC charge increases to $11,302 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.

1.2.8 Sample SDC Assessment

Residential Customers

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 1.2.8 – Sample Residential Assessment
Newport SDC Methodology

SDC Sector	SDC Charge per EDU
Water System SDC	$3,694.08
Wastewater System SDC	$3,207.91
Stormwater System SDC	$692.10
Transportation System SDC	$897.71
Parks System SDC	$2,356.98
Subtotal	$10,848.78
Compliance Cost Surcharge	$453.36
Total Residential SDC	**$11,302.14**

Therefore a total SDC for all of the SDC programs in Newport would be around $11,302 for an average new residential dwelling. This does not include any potential reductions for SDC credits that may be appropriate in Newport depending on how the City undertakes the various CIP projects in the future.

Non-Residential Customers

Non-residential development will require a more complicated and case-by-case assessment process. Each section within this methodology includes a discussion of the methods that are to be used to assess new residential and non-residential customers.

Appendix C includes a spreadsheet that illustrates various potential land uses in the community including commercial and residential properties. The spreadsheet includes illustrations of the SDC charge that may be imposed on the different land uses. Appendix C is intended to provide examples and potential charges and should not be considered as the final word in SDC charges for any one type of land use.

The City may also allow some new nonresidential customers to appeal their assessment and allow the customer to pay some of the assessment while a study is completed of their actual impact to the system. An example of a potential appeal process is provided in Section 3.10.2 of this methodology. The burden of paying for and making the case for an appeal should rest on the new customer.

1.2.9 SDC Ordinance and Methodologies

The SDC program in Newport 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, sanitary sewer SDC, and so on.

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 Newport owns and maintains a public infrastructure system that includes the following:

- A potable water system complete with a treatment plant, storage reservoirs, and a distribution system to deliver water to the end users.
- A sanitary sewer system that includes a wastewater collection system, several pumping stations, a treatment plant, and an ocean outfall for treated effluent.
- A storm drainage system with piping and ditching to convey rainwater runoff from high ground to appropriate outfall locations.
- A transportation system made up of major and minor roads, sidewalks, and other facilities for the purposes of providing transportation within and without the community.
- A parks system complete with several parks and other recreational facilities for the use of residents and visitors to the City.

In 1991, the City of Newport adopted an SDC methodology for each infrastructure sector mentioned above. Since that time, the SDC methodology remains unchanged with the exception of a minor increase in the wastewater SDC in 1995 in response to the City's need for a new wastewater treatment facility.

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

2.1.1 Summary of Previous SDC Charge Structure

Prior to the preparation of this methodology, the City assessed SDC's based on the following assessment methods for each infrastructure element:

1. Wastewater SDC Charge (charge based on a fixture count +2 method) $120 per fixture with first toilet counting as 3 units and commercial dishwashers counting as 2 units. For a typical residential dwelling unit with a fixture count of approximately 10 fixtures, the wastewater SDC would have been around $1,200.

2. Water SDC Charge (charge based on a fixture count +2 method) $60 per fixture. (same limitations as the wastewater SDC apply to water). For a typical residential dwelling unit with a fixture count of approximately 10 fixtures, the wastewater SDC would have been around $600.

3. Transportation SDC (charge based on a per unit basis) Trip generation determined per ITE chart and multiplied by $300 per EDU. For a typical residential dwelling unit, the transportation SDC is $300.

4. Storm SDC (charge based on an impervious surface methodology) Charged at a rate of $0.10 per square foot of impervious surface created. At an average impervious surface of around 2,727 square feet per EDU, the stormwater SDC would have been around $273 per typical residential EDU.

5. Parks SDC (charge based on a bedroom count per new dwelling) Flat rate charged to residences only at a rate of $300 per residence or per EDU.

Based on the previous methods, the total SDC for a typical residence would have been around $2,673. This information is provided so that the City may compare the final recommendations in this methodology to typical charges prior to the SDC update.

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 8.0.

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 public meeting.

2.2.4 Other SDC Statutory Provisions

Other provisions of the Oregon legislation require:

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

The provisions of the legislation are invalidated if they are construed to impair the local government's bond obligations or the ability of the local government to issue new bonds or other financing. Furthermore, the establishment or modification of an SDC or a project list is not a land use decision issue.

2.3 Capacity Replacement Protocol

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

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

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

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

2.4 Public Education and Input to Methodology

A successful SDC methodology update must incorporate a public education and public input component that effectively conveys information to interested and affected groups in the community and allows them a forum to ask questions, voice concerns, and seek resolutions. As part of this SDC methodology update, a great effort was made to provide public education and input to the project.

2.4.1 SDC Task Force

One of the first activities undertaken by the City was the formation of an appointed SDC task force. When considering whom to appoint to the task force, the City considered which groups in the community would be most affected by the SDC update. Key members of these groups were approached and asked to serve on the SDC task force during the preparation of the SDC methodology, throughout the public notification and education periods, to the ultimate completion and implementation of the new SDC program.

Members of the SDC task force included:

- A leader in the local property development community
- A member of the local homebuilders association and a local contractor
- A president of a local banking institution
- A leader in the local realtor community
- A member of the City of Newport Planning Commission, and
- A member of the City of Newport City Council

The intent with this group was to educate and involve key members of specific groups who, in turn, would provide support and assistance in delivering information to and answering questions posed by members of their individual groups or communities. By involving these communities and groups early in the process, it was hoped that differences, problems, or misunderstandings could be avoided later in the process.

2.4.2 SDC Meetings and Public Education

Soon after beginning the SDC methodology update process, two meetings were held to educate and present the project objectives to key participants. The first two meetings were:

1. A kickoff meeting with key members of City staff to discuss SDC's in general, talk about the plan for updating SDC's, discuss the role each member of the City staff will play in the updating of SDC's, and answer questions from staff. This meeting was held on October 30, 2006.
2. A kickoff meeting was then held with members of the SDC task force to discuss SDC in general, discuss the need for an SDC methodology update, and answer questions that members of the task force had with regard to the process. This meeting was also held on October 30, 2006.

Additional meetings were scheduled and held for the purpose of public education where a presentation would be provided to the City Council and members of the public would be allowed to comment and ask questions about the process.

A total of three public education meetings were planned as part of the SDC methodology update process.

2.5 Report Organization

The following sections comprise this City of Newport SDC Methodology Plan 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 Newport, 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 – Storm Drainage SDC Methodology.** This section provides a detailed accounting of the storm drainage SDC methodology.
- **Section 6 – Transportation SDC Methodology.** This section provides a detailed accounting of the transportation SDC methodology.
- **Section 7 – Parks SDC Methodology.** This section provides a detailed accounting of the parks SDC methodology.
- **Section 8 – 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.
- **Appendix.** The Appendix includes information that is referenced in this study but is not included in the referenced planning documents.

Section 3

3.0 Water System SDC Methodology

3.1 Introduction

This section describes in detail, the methodology and SDC calculation for the potable water system for the City of Newport, Oregon. This section describes the existing and future demand requirements of the system, the projects and project costs developed to address deficiencies and satisfy future demand needs, existing and future equivalent dwelling units for the assessment of the SDC's, and a calculation of the maximum allowable SDC's per EDU.

3.2 Water System Overview and Background

The City's Water System Master Plan (February 1988, CH2M Hill, 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.

In addition to the projects and planning information available in the 1988 study, other water projects completed within the past 10 years were included and considered within the SDC eligibility calculation.

This section will seek to provide some basic background information about the system as constituted at the time this methodology was prepared.

3.2.1 Overall Water System Description

The water treatment and distribution system in Newport 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 located on the lower Big Creek Reservoir, located on the northern edge of the community. The Big Creek drainage basin is relatively undeveloped with little logging or other activity in the basin. The City has constructed two dams to create two relatively large raw water storage reservoirs for the purposes of storing water for the City's use. According to the 1988 study, approximately 1,170-acre feet (381 million gallons) of storage is available within these reservoirs.

In addition to being filled by drainage from the Big Creek basin, the reservoirs receive influent from a raw water intake on the Siletz River. A raw water pumping station lifts water from the Siletz River near the City of Siletz, through several thousand feet of piping, to the upper reaches of the Big Creek basin. This Siletz River water flows by gravity through the basin to eventually be utilized by the City of Newport.

The City holds water rights from the Big Creek basin totaling 6.45 MGD. An additional 3.88 MGD water right is held on the Siletz River, giving the City a total water right capacity of 10.33 MGD or around 7,200 gpm.

The raw water facilities are in relatively good condition, with the exception of the lower reservoir, which has silted in significantly. The lower reservoir has also become overgrown with Brazilian elodea, a

noxious and aggressive weed that was probably imported when someone emptied a fish tank into the reservoir. Today, the weed chokes the reservoir, causes higher water temperatures, lower dissolved oxygen levels, and causes taste and odor problems.

Treatment. The existing water treatment facility was constructed in the early 1950's and expanded in 1978. The current capacity of the plant is reported to be around 7 MGD, though the plant is rarely operated over 4 MGD. The treatment plant processes include chemical coagulation and flocculation, two circular clarifiers, four multi-media filters, and chlorine disinfection. The City also utilizes lime for pH adjustment as well as adding fluoride to the finished water.

The plant is rated as a Level 3 plant and is operated and maintained well, despite its nearly 60 years of operating life. Many of the facilities at the plant, including the backwash pump, finished water pumps, clarifiers, and filters, are showing their age. In recent years, the backwash lagoon filled in with silt and alum sludge, making backwashes difficult as there was little or no room to contain the backwash water. Also, the City has historically struggled with high levels of manganese in their finished water. In some cases, the manganese has been known to precipitate in the distribution system, resulting in colored water. Efforts have been made to reduce manganese levels, including the installation of a sodium permanganate feed system at the raw water intake.

Distribution. Water is lifted into the distribution system by the treatment plant's high level service 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), booster pumping stations, pressure reducing valves, and related appurtenances to deliver water to end users located within four different pressure zones.

Storage. The City operates four treated water storage tanks within the distribution system, totaling 8.2 MG. A summary of each tank is provided below:

Reservoir Hill No. 1 – Steel tank constructed in 1972. Total volume is 2 MG.
Reservoir Hill No. 2 – Steel tank constructed in 1978. Total volume is 2 MG.
City Shops Reservoir 1 – Concrete and wood structure constructed in 1919. Total volume is 0.75 MG.
City Shops Reservoir 2 – Concrete and wood structure constructed in 1919. Total volume is 0.3 MG.
Yaquina Heights Reservoir – Steel tank constructed in 1993. Total volume is 1.6 MG.
South Beach Reservoir – Steel tank constructed in 1999. Total volume is 1.3 MG.
Smith Reservoir – Steel tank constructed in the 1960's. Total volume is 0.25 MG.

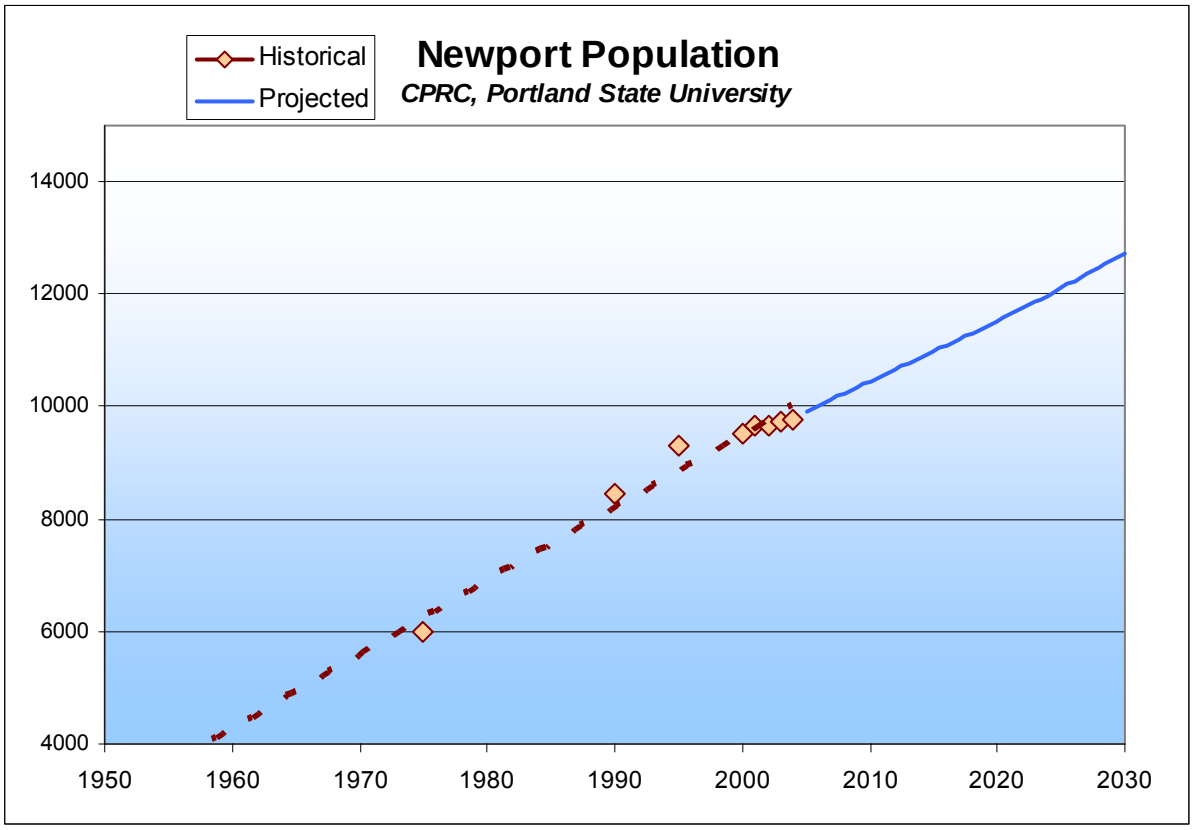
3.2.2 Population and Population Projections

The water consuming population in Newport includes full-time residences, commercial establishments, industrial users, and a part-time or tourist population.

Table 3.2.2 below illustrates historical data for the full-time residential population in Newport. The historical data shown is a compilation of US Census data and research completed by Portland State University. The 2007 population is estimated to be 10,124 persons.

The population projection line (shown in solid blue) is based on the City's current accepted growth rate value of 1%. At this rate, the residential full-time population in Newport is anticipated to reach 12,354 by 2027, or the end of the current 20-year planning horizon.

Table 3.2.2 – City of Newport Population Projections



It is estimated that approximately 2,230 new persons will be added to the City of Newport's full-time population count by the end of the 20-year planning period. This equates to around 112 new persons per year or around 50 new homes per year (based on the 2000 Census average of 2.25 persons per home).

It is much more difficult to evaluate the non-residential sectors within the community for population equivalencies. To account for the non-residential water consumers not discussed above, Section 3.3 below will seek to evaluate the entire water use population on a generalized basis.

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 population growth rate. This logic assumes that all sectors in the community will grow at a rate similar to that of the residential population. Under this assumption, it is anticipated that, for example, commercial enterprises will expand in response to population growth and job creation.

To determine the amount of growth EDU's to plan for, the number of existing EDU's had to be established. This was accomplished by analyzing water use records for the City. The following summarizes the calculation to determine existing EDU's for the water system in Newport.

(A) Total number of residential water service connections in Newport (2006): 3,593 connections

(B) Total water sold and used by all residential water customers in Newport (2006): 166,161,000 gallons

(C) Water used per residential connection: C=B/A

166,161,000 gal/ 3,593 connections = 46,246 gal/yr/connection

Or, water use is: 46,246 gal/EDU/yr (as an EDU ~ a typical residential connection water use)

(D) Total water used by the entire system and by all sectors (2006): 598,261,000 gallons

(E) Total system EDU's: E=D/C

598,261,000 gal/yr / 46,246 gal/EDU/yr = 12,937 total system EDU's

Therefore, based on water use in Newport, there is approximately 13,000 equivalent dwelling units using water in the City.

At an annual average growth rate (AAGR) of 1%, there will be approximately 15,785 EDU's in the City in 20 years. Therefore, it is estimated that approximately 2,849 EDU's will be added to the system during the planning period. These new EDU's will represent "growth" in the system and will form the basis for calculation of the City of Newport Water SDC.

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 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.

Several water system projects were developed and presented in the City's 1988 Water Master Plan. Many of these projects were completed though many others have not yet been undertaken.

Other needs have arisen within the City's water system that have generated preliminary project cost estimates that should be included within the City's CIP. The need for these projects is described later in this section.

3.4.1 Master CIP List

The City of Newport Water CIP Master List is provided below in Table 3.4.1. The CIP Master List should be updated regularly as new needs or additional planning arise, resulting in new projects. Likewise, if it is determined that a particular project is no longer needed, it should be dropped from the CIP list.

Table 3.4.1 – Master Water System Improvement Project List (CIP)

Project No.	Project Description	Project Cost	Project Cost Date	ENR Index of Estimate	Current ENR Index	Adjusted Cost Estimate (current)
1	New Water Treatment Plant	$15,000,000.00	Jan-07	7880	8007.48	$15,242,664.97
2	Agate Beach 1 MG Reservoir	$1,300,000.00	Mar-07	7880	8007.48	$1,321,030.96
3	City Shop Reservoir Replacement with 1 MG Tank	$380,000.00	Aug-87	4430	8007.48	$686,871.87
4	King Ridge 1 MG Reservoir	$1,250,000.00	Dec-05	7647	8007.48	$1,308,925.07
5	South Beach 2nd Level Booster Station	$175,000.00	Aug-87	4430	8007.48	$316,322.57
6	Upper Agate Beach Reservoir - 1 MG	$1,300,000.00	Mar-07	7880	8007.48	$1,321,030.96
7	New 12-inch Bay Undercrossing Pipeline	$550,000.00	Aug-87	4430	8007.48	$994,156.66
8	12-inch Water Main Loop to New Development (South Beach)	$902,860.00	Dec-05	7647	8007.48	$945,420.87
9	12-inch Water Main to Idaho Point	$360,133.00	Dec-05	7647	8007.48	$377,109.69
10	Newport Airport Water Main	$550,556.00	Dec-05	7647	8007.48	$576,509.24
11	East Highway 101 Water Main	$1,105,000.00	Mar-07	7880	8007.48	$1,122,876.32
12	Benson Road Waterline	$1,105,000.00	Mar-07	7880	8007.48	$1,122,876.32
13	Yaquina Heights Waterline	$380,250.00	Mar-07	7880	8007.48	$386,401.56
Completed Projects						
14	Siletz River Water Intake	$1,038,400.00	1994	complete	complete	complete
15	Siletz River Raw Waterline	$2,559,000.00	1994	complete	complete	complete
16	South Beach 1 MG Reservoir	$650,000.00	1999	complete	complete	complete
17	Yaquine Heights 1 MG Reservoir	$516,000.00	1994	complete	complete	complete
18	Yaquina Heights 4th Level Pump Station Upgrade	$50,000.00	2002	complete	complete	complete
19	East Newport Water Project	$366,000.00	1988	complete	complete	complete
20	12-inch HDPE - SW 35th & Hwy 101 to Southshore (8" to 12")	$150,000.00	1996	complete	complete	complete
	Totals	**$29,688,199.00**				**$25,722,197.07**

The CIP project list above indicates the date when the original project cost estimate was prepared. Another column is provided indicating the corresponding Engineering News Record Index (ENR Index) for the original cost estimate. 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.

As significant increases in material and construction costs have occurred since the original estimate was prepared, costs have been increased based on the current ENR Index value. In the future, costs on the CIP can be updated using the new ENR values as needed.

3.4.2 Need for Projects on List Not in Existing Planning Documents

With the exception of a few, all of the projects on the CIP list were developed as part of either the 1988 Water Master Plan or the 2006 South Beach Neighborhood Plan. Descriptions, as well as project justification, are provided for those projects in the previous planning efforts. Costs have been updated based on the ENR Index.

Several of the projects on the CIP above do not appear in any previously completed planning documents. Therefore, this section will seek to provide "bridge planning" to illustrate the need for these projects and justify the projects' appearances on the CIP list.

Not all projects on the list will be considered to be fully or partially SDC eligible. For a discussion of SDC eligibility, see Section 3.5.

Project No. 1 - New Water Treatment Plant

The 1988 Water Master Plan made modest recommendations for improvements to the water treatment plant. However, 20 years have passed since that planning was completed. The treatment plant is also approaching 60 years in age and has several significant deficiencies. These include problems with the raw water intake, clarifiers, filters, clearwell, backwash facilities, backwash lagoon and others.

To ensure that the City will have a safe and reliable water source and treatment facility for the next 50 years, the City is interested in developing a new treatment facility. At the time that this methodology was prepared, the City was in the process of securing a new water master plan to provide alternatives and recommendations for treatment upgrades.

A new plant will have to be constructed to serve the projected 15,785 EDU's and have the ability to expand beyond the planning period. At the rates described in Section 3.3 and using common planning criteria, the new plant will need to be capable of producing water at a rate of around 7.5 MGD or 5,300 gpm (approximated maximum daily demand).

Based on recent projects in other communities, a reasonable preliminary budget for this project would be around $15 million. Once additional planning is completed, the estimated project costs should be updated.

Project No. 19 - East Newport Water Project

This project was completed by a developer to expand the water system in the Highway 20 area in the eastern part of the community. The City paid to upsize the new water distribution piping from 8-inch to 12-inch diameter to provide for increased flows for future development in the area.

The project should be considered as part of a reimbursement SDC. The SDC eligible portion should be based on the cross sectional increase obtained by upsizing from 8- to 12-inch diameter piping.

Project No. 20 - 12-inch HDPE – SW 35th & Hwy 101 to Southshore

In 1996, the City completed a project that was on their CIP list to extend a new waterline to the Southshore area in the southern part of the service area. The project included extending a new 12-inch waterline to the south along with new fire hydrants, valves, and other necessary appurtenances.

The project was needed due to the development that was and has taken place in the Southshore area.

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 for 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 that have not yet been completed, costs have been increased using the ENR Index as developed above in Table 3.4.1.

A brief description is provided below to illustrate the logic and approach taken to determining the eligibility of each project on the CIP list. A summary of all projects and their associated eligibility is provided in Table 3.5.1.

Project 1: Water Treatment Plant

To determine the SDC eligibility of a new treatment facility, the existing demand must be determined and compared against the projected demand to determine the growth component of the required plant upgrade.

This was accomplished by reviewing data made available from the City's water production records. Some of this information was discussed previously in Section 3.3 above. A summary of this calculation is as follows:

Current Demand:
Existing production: 12,937 EDU's x 46,246 gal/EDU/yr = 1,639,136 gpd
Therefore, the ADD is: 1.64 MGD
Assumed MDD Multiplier: 3.5
Therefore, the MDD is: 1.64 MGD x 3.5 = 5.74 MGD
An existing MDD of around 5.74 MGD compares favorably to plant records

Projected Demand:
Projected production: 15,785 EDU's x 46,246 gal/EDU/yr = 1,999,981 gpd
Therefore, the ADD is: 2.0 MGD
Assumed MDD multiplier: 3.5
Therefore, the MDD is: 7.0 MGD

Ratio of existing vs. projected demands:
Ratio: 5.74 MGD/7.0 MGD = 0.77

Therefore:	Approximately 76.5% of the new plant is replacing existing capacity
Therefore:	Approximately 23.5% of the new plant is to satisfy growth needs

Based on the above analysis, the new plant project should be considered to be approximately 23.5% SDC eligible.

Project 2: Agate Beach 1 MG Reservoir

Based on available planning and staff input, it was determined that this project is necessary to solve a combination of existing and projected needs. Based on information provided by City staff, we will assume that approximately one quarter of the storage reserves are needed to address existing deficiencies with the remaining 75-percent to satisfy growth needs. Therefore, it is assumed that this project should be considered as 75% SDC eligible.

Project 3: City Shop Reservoir Replacement

As this project is intended to replace existing facilities without adding new capacity to satisfy need that is to be created by growth, this project is not to be considered as SDC eligible.

Project 4: King Ridge 1 MG Reservoir

According to staff and previous planning efforts, this project is needed entirely to satisfy the demands placed on the system by growth. Therefore, this project should be considered as 100% SDC eligible.

Project 5: South Beach 2nd Level Booster Station

According to staff and previous planning efforts, this project will be required to satisfy growth in the upper levels of the South Beach area. Therefore, this project should be considered as 100% SDC eligible.

Project 6: Upper Agate Beach 1 MG Reservoir

According to staff and previous planning efforts, this project is required to satisfy a combination of existing and anticipated needs. Based on staff input, it is recommended that this project be considered as 50% SDC eligible.

Project 7: New 12-inch Bay Undercrossing Pipeline

According to staff and previous planning efforts, this project is required to increase the amount of water delivered to the system south of the Yaquina Bay Bridge and is necessary completely due to growth in the system. Therefore, the project is considered as being 100% SDC eligible.

Project 8: 12-inch Water Main Loop to South Beach Development

According to staff and previous planning efforts, this project is required to increase the amount of water delivered to the southernmost portions of the water system and is necessary completely due to growth in the system. Therefore, the project is considered as being 100% SDC eligible.

Project 9: 12-inch Water Main to Idaho Point

Plans for this project are based on the need to increase water service to the Idaho Point area to service new development that is expected in the area. An existing pipeline provides some service to this area now and must be upsized. SDC eligibility is to be based on the increased flow available from increasing the pipeline from a 6-inch to a 12-inch pipeline. Therefore, the project is considered to be 75% SDC eligible.

Project 10: Newport Airport Water Main

The City considers all projects related to development of the airport not to be SDC eligible and should be funded through other means.

Project 11: East Highway 101 Water Main

According to staff and previous planning efforts, this project is required to increase the amount of water delivered to the eastern part of the system. As there are existing deficiencies, staff suggests rating this project to be around 75% SDC eligible.

Project 12: Benson Road Waterline

This project includes provisions to upsize a planned waterline from 8-inch diameter to 12-inch diameter to provide for growth potential. Therefore, based on increased flow capacity between an 8- and 12-inch pipe, this project is considered to be around 44% SDC eligible.

Project 13: Yaquina Heights Waterline

No customers are currently served in this area. Therefore, this project will be entirely motivated by expansion of the water system. Therefore, this project should be considered as 100% SDC eligible.

Project 14: Siletz River Water Reservoir

This project was completed using general obligation (GO) bond monies. Therefore, it cannot be considered as an SDC eligible project.

Project 15: Siletz River Raw Waterline

This project was completed using general obligation (GO) bond monies. Therefore, it cannot be considered as an SDC eligible project.

Project 16: South Beach 1 MG Waterline

This project was completed using general obligation (GO) bond monies. Therefore, it cannot be considered as an SDC eligible project.

Project 17: Yaquina Heights 1 MG Reservoir

This project was completed using general obligation (GO) bond monies. Therefore, it cannot be considered as an SDC eligible project.

Project 18: Yaquina Heights 4th Level Pump Station Upgrade

Under this project, the City paid to upsize the pump and critical system components to provide for capacity for anticipated growth. Based on staff opinion, this project is rated to be 50% eligible for reimbursement SDC's.

Project 19: East Newport Water Project

The City paid to upsize this project from a standard 8-inch distribution line to a 12-inch line to provide additional capacity for future growth. Therefore, this project should be considered 44% SDC eligible due to the increased capacity of the larger pipeline.

Project 20: 12-inch HDPE – SW 35th & Hwy 101 to Southshore

This project was undertaken to provide water to the Southshore area to service growth and development in the area. Therefore, this project is rated at being 100% SDC eligible.

Table 3.5.1 – Water System Project SDC Eligibility Summary

Project No.	Project Description	Adjusted Cost Estimate (current)	Reimbursement SDC Eligible (Y/N)	Improvement SDC Eligible (Y/N)	% SDC Eligible	SDC Eligible Cost
1	New Water Treatment Plant	$15,242,664.97	N	Y	23.50%	$3,582,026.27
2	Agate Beach 1 MG Reservoir	$1,321,030.96	N	Y	75.00%	$990,773.22
3	City Shop Reservoir Replacement with 1 MG Tank	$686,871.87	N	N	0.00%	$0.00
4	King Ridge 1 MG Reservoir	$1,308,925.07	N	Y	75.00%	$981,693.80
5	South Beach 2nd Level Booster Station	$316,322.57	N	Y	100.00%	$316,322.57
6	Upper Agate Beach Reservoir - 1 MG	$1,321,030.96	N	Y	50.00%	$660,515.48
7	New 12-inch Bay Undercrossing Pipeline	$994,156.66	N	Y	100.00%	$994,156.66
8	12-inch Water Main Loop to New Development (South Beach)	$945,420.87	N	Y	100.00%	$945,420.87
9	12-inch Water Main to Idaho Point	$377,109.69	N	Y	75.00%	$282,832.27
10	Newport Airport Water Main	$576,509.24	N	N	0.00%	$0.00
11	East Highway 101 Water Main	$1,122,876.32	N	Y	75.00%	$842,157.24
12	Benson Road Waterline	$1,122,876.32	N	Y	44.00%	$494,065.58
13	Yaquina Heights Waterline	$386,401.56	N	Y	25.00%	$96,600.39
Completed Projects						
14	Siletz River Water Intake	complete	N	N	0.00%	$0.00
15	Siletz River Raw Waterline	complete	N	N	0.00%	$0.00
16	South Beach 1 MG Reservoir	complete	N	N	0.00%	$0.00
17	Yaquine Heights 1 MG Reservoir	complete	N	N	0.00%	$0.00
18	Yaquina Heights 4th Level Pump Station Upgrade	complete	Y	N	50.00%	$25,000.00
19	East Newport Water Project	complete	Y	N	44.00%	$161,040.00
20	12-inch HDPE - SW 35th & Hwy 101 to Southshore (8" to 12")	complete	Y	N	100.00%	$150,000.00
	Totals	**$25,722,197.07**				**$10,522,604.36**

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. This section will establish the methodology and the charge for water system reimbursement SDC's in Newport.

A summary of the recommended reimbursement SDC for the piping improvements is provided below:

Table 3.6.1 – Newport Reimbursement SDC Summary – Water System

Project No.	Project Description	SDC Eligible Cost
18	Yaquina Heights 4th Level Pump Station Upgrade	$25,000.00
19	East Newport Water Project	$161,040.00
20	12-inch HDPE - SW 35th & Hwy 101 to Southshore (8" to 12")	$150,000.00
	Total Reimbursement Eligible Costs (A)	$336,040.00
	Total Growth EDU's per Section 3.3 (B)	2,849
	Maximum Reimbusement Water SDC (A/B)	**$117.97**

Therefore, based on this methodology, the reimbursement SDC component for the water system should not exceed approximately $118.

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 Section 3.5 above. The following table provides a summary of the total cost of SDC eligible projects on the CIP that have not yet been constructed.

Table 3.7.1 illustrates the calculation used to establish the improvement SDC for the Newport water system.

Table 3.7.1 – Newport Improvement SDC Summary – Water System

Project No.	Project Description	SDC Eligible Cost
1	New Water Treatment Plant	$3,582,026.27
2	Agate Beach 1 MG Reservoir	$990,773.22
4	King Ridge 1 MG Reservoir	$981,693.80
5	South Beach 2nd Level Booster Station	$316,322.57
6	Upper Agate Beach Reservoir - 1 MG	$660,515.48
7	New 12-inch Bay Undercrossing Pipeline	$994,156.66
8	12-inch Water Main Loop to New Development (South Beach)	$945,420.87
9	12-inch Water Main to Idaho Point	$282,832.27
11	East Highway 101 Water Main	$842,157.24
12	Benson Road Waterline	$494,065.58
13	Yaquina Heights Waterline	$96,600.39
	Total Improvement Eligible Costs (A)	$10,186,564.36
	Total Growth EDU's per Section 3.3 (B)	2,849
	Maximum Improvement Water SDC (A/B)	**$3,576.11**

Therefore, based on this methodology, the improvement components of the Newport water system SDC should not exceed approximately $3,576.

Together, the combined SDC, including improvement and reimbursement eligible projects totals around $3,694, not including adjustments for SDC credits or compliance costs.

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 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 $200,000 in SDC fees for the water system. This same developer elects to construct a new waterline to service his development. As the waterline is part of the City's water system CIP, the developer's efforts make him eligible to receive an SDC credit for the improvements that he completed. If we assume the project cost to install the waterline is around $300,000, 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 a fair and reasonable offset credit when it applies.

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 SDC methodology.

3.8.2 Financing Credit - Project Costs and Potential Loan Amounts

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

Establishing a precise financing credit for Newport 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.

To assist the City in establishing a credit, an effort was made to provide a range of credits that vary with the amount of project costs that will be funded through rate increases (sinking funds or debt repayment) and with time, as the amount of credit that should be provided depends on how long a new user will be paying an increased user fee. For the purposes of this analysis, it was assumed that a loan could be secured at 5-percent for a 20-year term and the existing EDU customers would form the basis for setting the new user rate. Additional revenues appreciated through new users may be utilized to retire the debt earlier or be used for new projects that may be added to the CIP at a later date.

Table 3.8.2 – Project Funding Scenarios
SDC Eligible Percentage of Projects Funded Through Loans
Resulting in a User Rate Increase

% Project Cost Paid by Loan	Total Loan Required	Monthly User Rate Increase per EDU
100	$10,522,604	$5.37
75	$7,891,953	$4.03
50	$5,261,302	$2.68
25	$2,630,651	$1.34
0	$0	$0.00

Therefore, based on the above analysis, the improvements on the City's water SDC, if funded fully by a theoretical loan, could result in a water user fee rate increase as high as $5.64 per month per EDU based on the current user base.

3.8.3 Present Worth of User Rate Increase and SDC Credits

To establish an SDC credit for the water treatment and distribution system, the present worth of potential future rate increases must be established. This present worth value varies based on the amount of time that is involved (buy-in), the interest rate utilized, and the monthly rate increase that is being considered.

To provide the City with a range of information to assist them in determining an appropriate SDC credit for the water system, the following tables are provided with different SDC credit recommendations. The City may wish to adjust the SDC credit throughout the planning period depending on the rate increases that are passed to complete new collection system projects and the interest rate utilized.

The following tables include potential present-worth-based SDC credits for the water system that vary by the amount of money that may be paid through a loan or other funding that requires increased user fees and also by the amount of time that a potential user may be paying those fees. An interest rate of 5% was utilized for this illustration.

Table 3.8.3.a – Present Worth SDC Credit Table
100% Loan Financing

New User Connects to System in Year No.	Rounded Time Paying New Rate (yrs)	Present Worth	Rounded SDC Credit
0-5	20	$813.40	$813
6-10	15	$678.82	$679
11-15	10	$506.11	$506
16-20	5	$284.46	$284

Table 3.8.3.b – Present Worth SDC Credit Table
75% Loan Financing

New User Connects to System in Year No.	Rounded Time Paying New Rate (yrs)	Present Worth	Rounded SDC Credit
0-5	20	$610.05	$610
6-10	15	$509.12	$509
11-15	10	$379.58	$380
16-20	5	$213.34	$213

Table 3.8.3.c – Present Worth SDC Credit Table
50% Loan Financing

New User Connects to System in Year No.	Rounded Time Paying New Rate (yrs)	Present Worth	Rounded SDC Credit
0-5	20	$406.70	$407
6-10	15	$339.41	$339
11-15	10	$253.06	$253
16-20	5	$142.23	$142

Table 3.8.3.d – Present Worth SDC Credit Table
25% Loan Financing

New User Connects to System in Year No.	Rounded Time Paying New Rate (yrs)	Present Worth	Rounded SDC Credit
0-5	20	$203.35	$203
6-10	15	$169.71	$170
11-15	10	$126.53	$127
16-20	5	$71.11	$71

Using these tables and considering the plan year that new connections are added to the system, the City must determine the credit that will be appropriate at the time of an SDC assessment. Alternatively, it may be less complicated and appropriate for the City to err on the conservative side and offer the maximum potential credit of $845. This will eliminate the need to recalculate credits based on the length of time left on a particular project loan or the principal value of the original loan.

The City must also adjust the final SDC's to include a compliance cost component. Compliance costs are discussed in Section 8.0.

3.9 Water System SDC Summary

Section 3 has been developed to provide the City of Newport with the methodology needed to establish the maximum allowable SDC's for the water treatment and distribution system. The following table provides a summary of the information utilized to complete this analysis:

Table 3.9.1 – Water System SDC
Summary per EDU (before compliance costs)

SDC Component	SDC Amount
Improvement Fee	
Per Section 3.7	$3,576.11
Reimbursement Fee	
Per Section 3.6	$117.97
Subtotal of Water SDC Fees	**$3,694.08**
Credit Summary	
Upper Range Credit (100% Financing Credit)	$813
Mid Range Credit (75% Financing Credit)	$610
Mid Range Credit (50% Fincancing Credit)	$407
Low Range Credit (25% Financing Credit)	$203

The maximum defendable SDC for the water treatment and distribution system is around $3,694 per EDU *without the application of an SDC credit or SDC compliance costs.* 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 adjust this charge in any way they feel is appropriate. 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.

If the City elects to charge the maximum allowable collection SDC of $3,694 and allow the maximum potential financing credit of $813, the total recommended water treatment and distribution system SDC would be $2,881 per EDU, not including SDC compliance costs (see Section 8.0).

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 Nonresidential Assessment Table

The following tables should be used to assess water system SDC's for both residential and non-residential customers that wish to connect to the Newport water system:

Table 3.10.1 – 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 ft²
Athletic Club	0.3	per 1,000 ft²
Auto Care	0.1	per service bay
Auto Parts Sales	0.2	per 1,000 ft²
Auto Sales	0.2	per 1,000 ft²
Bank, Drive-in	0.3	per 1,000 ft²
Bank, Walk-in	0.3	per 1,000 ft²
Building Material and Lumber Store	0.2	per 1,000 ft²
Cab Company	0.2	per 1,000 ft²
Car Wash, Automated	na	See meter sizing assessment in Table 3.10.2
Car Wash, Self Service	0.7	per stall
Cemetery	0.2	per 1,000 ft²
Church	0.2	per 1,000 ft²
Community/Junior College	1.0	Per 250 gross square ft²
Convenience Market (Open 24 Hours)	0.2	per 1,000 ft²
Convenience Market (Open 15-16 Hours)	0.2	per 1,000 ft²
Convenience Market with Gasoline Pumps	0.2 0.1	per 1,000 ft² per pump
Day Care	0.2	per student
Drinking Establishment	0.7	per 1,000 ft²
Furniture Store	0.2	per 1,000 ft²
Hardware/Paint	0.2	per 1,000 ft²
Health/Fitness Club	0.3	per 1,000 ft²
Hospital	1.0	See meter sizing assessment in Table 3.10.2
Industrial	1.0	See meter sizing assessment in Table 3.10.2
Library	0.2	per 1,000 ft²
Lodge/Fraternal	0.3	per 1,000 ft²
Manufacturing	0.2	per 1,000 ft²
Medical/Dental Office	0.4	per 1,000 ft²
Mini-warehouse Storage and warehouses	0.1	per 1,000 ft²
Mobil Home Park	0.75	Per dwelling unit

Enterprise	Number of EDU's	Units
Motel (not including laundry facilities or pools)	0.3	per room
Nursery Garden Center	0.2	per 1,000 ft²
Nursing Home	0.3	per bed
Office Building	0.2	per 1,000 ft²
Retail establishment, shopping center, grocery, etc.	0.2	per 1,000 ft²
Post Office	0.2	per 1,000 ft²
Quick Lubrication Vehicle Stop	0.1	per bay
Recreational Facility, Multipurpose	0.3	per 1,000 ft²
Restaurant, any type	4	per 1,000 ft²
Schools	1.4	Per 250 gross square ft²
Service Station	0.1	per bay
Service Station w/Convenience Market	0.1 0.2	per pump per 1,000 ft²
Single Family Detached Housing	1	per house
Fish Processing Facility	na	See meter sizing assessment in Table 3.10.2
Pools and aquatic facilities	na	See meter sizing assessment in Table 3.10.2
Brewery	na	See meter sizing assessment in Table 3.10.2
Movie Theatre	0.3	per 100 seats
Commercial/Coin-Op Laundry	na	See meter sizing assessment in Table 3.10.2

Table 3.10.2 – Equivalency Table to Convert Meter Size To Equivalent Dwelling Units for Customers not Included in Table 3.10.1

Meter Size	Hydraulic Capacity Factor	No. of EDU's
3/4"	1	1.0
1"	1.67	1.7
1-1/2"	3.33	3.3
2"	5.33	5.3
3"	10.67	10.7
4"	16.67	16.7
6"	33.33	33.3
8"	53.33	53.3
10"	76.67	76.7

When a specific land use is not included in Table 3.10.1 or if the table does not fit the application well, Table 3.10.2 should be used to convert the meter size of a new customer into an equivalent EDU amount. Staff should review the new customer's land use plans carefully to ensure that the proper meter size is being utilized by the new property.

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

While Tables 3.10.1 and 3.10.2 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 Newport when it is deemed appropriate by the City:

A single EDU in Newport is assumed to be a water demand of around 3,850 gallons per month on average. This value is significantly lower than the public standard of around 7,000 gallons per month. This could be due to the fact that there are many part-time residents in Newport, 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 Newport utilizes around 3,850 gallons of water per month.

If a new customer disagrees with the assessment that is calculated using Table 3.10, 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 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 Newport. Through a plan review, it is determined that the restaurant has 2,000 square feet of floor space. Based on Table 3.10.1 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.

Section 4

4.0 Wastewater System SDC Methodology

4.1 Wastewater Collection System

This section describes in detail the calculations, background information, and methodology used to develop and identify the maximum defendable SDC for the City of Newport wastewater collection and treatment 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 defendable SDC per EDU for the wastewater system is developed herein.

4.2 Wastewater System Overview

The City's Wastewater Facilities Plan (Fuller & Morris, CH2M Hill, 1995) was used primarily for as background planning for the wastewater system. Where required, appropriate bridge planning and justification is provided within this section.

4.2.1 Overall Wastewater System Description and Background

The City of Newport owns and maintains a wastewater system for the collection, transmission, and treatment of municipal wastewater. The system is composed of gravity sewer piping and manholes, several wastewater pump stations and their associated force mains, a wastewater treatment facility, and an ocean outfall for treated effluent.

The original wastewater treatment facility was located in the Nye Beach area of the community. The plant was constructed in 1964 with a design capacity of around 1.6 MGD. Due to high levels of inflow and infiltration and other deficiencies, the treatment plant experienced regular violations and operational difficulties resulting in the City receiving an order from DEQ to make improvements.

In 2002, the City completed construction of a new wastewater treatment facility south of the Yaquina Bridge. The new treatment plant is capable of treating peak flows of 5 MGD with a maximum hydraulic (peak winter flow) capacity of around 15 MGD.

In addition to the treatment facility, the City also owns and operates over 25 wastewater lift stations and their associated force mains. These pumps stations are located throughout the community and are necessary to provide sewer service to areas that cannot be served by gravity alone.

The existing wastewater collection system also included several hundred manholes and miles of gravity piping. These gravity components in the collection system vary by age, material, capacity, and condition.

4.2.2 Service Population

For the purposes of this methodology, it was assumed that the current wastewater service population is effectively equivalent to the existing water system service population. Therefore, the current and projected service population established in Section 3.2.2 of this methodology shall be appropriate for this section also.

4.3 EDU Methodology and Projected Growth

Due to the assumption that the water and sewer service populations are essentially the same, the methodology utilized for determining the number of sewer EDU's and projected EDU's for the sewer will be the same as that developed for the water system SDC methodology in Section 3.3.

A summary of the EDU data used for the Newport sanitary sewer SDC methodology follows:

Existing EDU's (all sectors) 12,937
Projected EDU's (20-yr) 15,785
Total Growth Potential (EDU's) 2,849

Based on these figures, the City should add around 142 new EDU's for each year of the planning period. This growth potential includes all residential, commercial, industrial, and other sectors of growth.

4.4 Project Summary and Project Costs (CIP)

The City's referenced Wastewater Facilities Plan included detailed planning and project costs for the construction of new facilities to replace the old wastewater treatment plant and related systems. In 2002, the City completed this major wastewater improvement project.

The plan included several other recommendations for pump station and piping improvements throughout the system. These recommendations included general projected sizing requirements and layouts, but the plan did not include cost estimates for these other recommended improvements. Therefore, bridge-planning to provide preliminary cost estimates for these projects is included within this methodology.

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

4.4.1 Wastewater Treatment Projects

Project 1 – Wastewater System Improvements (completed 2002)

As mentioned above, the City undertook a major wastewater treatment facilities upgrade project that was completed in approximately 2002. The total project cost for this project was in excess of $42,000,000. The basis and need for the project was established in the City's 1995 Wastewater Facilities Plan (Fuller and Morris).

After deducting funding sources related to grant funding, property tax funding, or urban renewal funding, approximately $8,063,072 of the total project costs should be considered SDC eligible.

The plant was designed to handle average peak flows of around 5 MGD. Current average peak flows total around 3 MGD. Therefore, around 60% of the plant capacity is utilized to handle current average

peaks. Therefore, it is assumed that 40% of the plant capacity is available for growth and is, therefore, SDC eligible.

4.4.2 Collection System Projects

All of the costs in this section were prepared in April and May of 2007. Later tables in this section and elsewhere may not match these costs due to updates in the ENR Index.

Project 2 – Sally's Bend Lift Station

The Sally's Bend lift station is planned to be located near SE Benson and Yaquina Bay roads, on the north side of the bay. The 1996 Facilities Plan calls for the station to be sized to handle 1 MGD (~700 gpm) of peak hourly flow. The project is also to include approximately 5,200 lineal feet (lf) of 8-inch diameter force main piping.

The preliminary cost breakdown for the project is as follows:

1. New pump station construction (lump sum) $500,000
2. 5,200 lf of 8" force main ($65 / lf) $338,000
3. Add 30% for contingency, engineering, and administration costs $251,400
   Total estimated project costs **$1,089,400**

The improvements in this basin will service areas that are not currently served by City sewer. Therefore, it should be assumed that the project will be 100% SDC eligible as the need for the project is based entirely on expanding the current service area of the system.

Project 3 – Sally's Bend Gravity Piping

This project includes the construction of new gravity collection piping within the basin to be served by the new Sally's Bend lift station. Piping within the basin will be constructed on an upland from Benson Road. The available planning suggests that around 10,000 lf of new gravity piping will be required to serve the basin.

The preliminary cost breakdown for the project is as follows:

1. 10,000 lf of 8" gravity piping and manholes ($85 / lf) $850,000
2. Add 30% for contingency, engineering, and administration costs $255,000
   Total estimated project costs **$1,105,000**

The improvements in this basin will service areas that are currently not served by City sewer. Therefore, it should be assumed that the project will be 100% SDC eligible as the need for the project is based entirely on expanding the current service area of the system.

Project 4 – Jeffries Creek Lift Station

The Jeffries Creek lift station is planned to be located approximately east of the City swimming pool on the east side of Jeffries Creek. The station is planned to serve a small basin that cannot be served by gravity within one of the other existing basins. The 1996 Facilities Plan recommends that the station be sized with a firm capacity of 0.2 MGD or around 140 gpm. In addition to the pump station, planning suggests approximately 500 lf of a new 4-inch force main.

The preliminary cost breakdown for the project is as follows:

1. New pump station construction (lump sum) $325,000
2. 500 lf of 4" force main ($60 / lf) $30,000
3. Add 30% for contingency, engineering, and administration costs $106,500
   Total estimated project costs **$461,500**

As this project will essentially benefit a single development or development area, it is not considered to be SDC eligible but, rather, should be funded through a local funding mechanism such an LID or paid for directly by development.

Project 5 – Jeffries Creek Gravity Piping

This project provides for the gravity piping and manholes needed to carry wastewater to the new pump station. The project includes approximately 4,000 lf of new 8-inch piping.

A preliminary cost estimate for the project follows:

1. 4,000 lf of 8" gravity piping and manholes ($85 / lf) $340,000
2. Add 30% for contingency, engineering, and administration costs $102,000
   Total estimated project costs **$442,000**

Like the Jeffries Creek pump station project, the gravity piping on this project will most likely benefit only a small area and a limited number of customers. Therefore, it is not considered to be SDC eligible at this time.

Project 6 – Big Creek Pump Station Upgrades

The existing Big Creek pump station is located on Oceanview Drive near the confluence of Big Creek. The 1996 Facilities Plan recommends that the pump station be upgraded to a firm pumping capacity of 4.25 MGD (3,000 gpm). Included within this project is the installation of new force main piping, accomplished through a combination of direct placement and pipe bursting.

A preliminary cost estimate for the project is provided below:

1. Pump station upgrade (lump sum) $400,000
2. 2,100 lf of 12" force main ($95 / lf) $199,500
3. 2,600 lf of 12" pipe bursting ($75 /lf) $195,000
3. Add 30% for contingency, engineering, and administration costs $238,350
   Total estimated project costs **$1,032,850**

Based on current flows and station performance and the planned station capacity, it is estimated that approximately 50% of the station capacity will be available for growth potential.

Project 7 – Big Creek Gravity Sewer

This project seeks to provide additional gravity sewer piping to areas within the Big Creek basin not currently serviced by city sewer, as well as replacing some existing piping sections. The project includes approximately 4,500 lf of new 8-inch gravity piping.

A preliminary cost estimate for the project is provided below:

1. 4,500 lf of 8" gravity piping and manholes ($85 / lf) $382,500
2. Add 30% for contingency, engineering, and administration costs..... $114,750
   Total estimated project costs..... **$497,250**

As approximately half of the project is intended to extend sewer service to areas not currently served, it is recommended that the project be considered at 50% SDC eligible.

Project 8 – 48th Street Lift Station Upgrade

The 48th Street pump station is located near 48th Street and Highway 101. The 1996 Facilities Plan recommends that the station be upgraded to a firm pumping capacity of around 3 MGD (2,100 gpm). The station will require significant upgrades with only minor station components being adequate to be reused as part of the upgrade. The project includes approximately 1,500 lf of 12-inch diameter force main that is to be installed through a pipe bursting technique.

A preliminary project cost estimate is provided below:

1. Pump station upgrade (lump sum) $650,000
2. 1,500 lf of 12" force main pipe bursting ($75 / lf)..... $112,500
3. Add 30% for contingency, engineering, and administration costs..... $228,750
   Total estimated project costs..... **$991,250**

Existing versus projected flows suggest that approximately 50% of the station capacity is held in reserve for growth. Therefore, approximately 50% of the project should be considered SDC eligible.

Project 9 – Schooner Creek Lift Station Upgrade

The Schooner Creek lift station is to be located within the northern end of the City's system. The 1996 Facilities Plan recommends that the station be sized for a firm pumping capacity of around 2.3 MGD (1,600 gpm). In addition to a pump station upgrade, approximately 3,500 lf of 12-inch diameter force main is recommended.

A preliminary project cost estimate is provided below:

1. Pump station upgrade (lump sum) $400,000
2. 3,500 lf of 12" force main pipe bursting ($75 / lf)..... $262,500
3. Add 30% for contingency, engineering, and administration costs..... $198,750
   Total estimated project costs..... **$861,250**

Existing versus projected flows suggest that approximately 50% of the station capacity is held in reserve for growth. Therefore, approximately 50% of the project should be considered SDC eligible.

Project 10 – Schooner Creek Gravity Collection System Piping

This project is intended to provide new gravity piping primarily on the east side of Highway 101 in the basin serviced by the Schooner Creek pump station. The 1996 Facilities Plan recommends approximately 11,000 lf of new gravity sewer piping within the basin.

A preliminary cost estimate for the project is provided below:

1. 11,000 lf of 8" gravity piping and manholes ($85 / lf) $935,000
2. Add 30% for contingency, engineering, and administration costs..... $280,500
   Total estimated project costs..... **$1,215,500**

As much of this piping will service only a limited number of customers or a single development, it is recommended that the project be funded through other means and not be considered for SDC eligibility.

Project 11 - Neolha Point Lift Station

The Neolha Point Lift Station was constructed over the summer and fall of 2006 and started up in early 2007. The station was constructed to take the place of the planned Idaho Cove pump station that was included in the 1996 Facilities Plan but was constructed near the same location on the west end of Idaho Point.

The station was constructed to provide service to new development areas which have not previously been served by city sewer as well as connect some properties that currently utilize private STEP systems to access city sewer. The capacity of the station is approximately 500 gpm.

The project was constructed using in-house forces with city staff providing much of the engineering project management and construction oversight. This resulted in a lower project cost than typical at around $175,000.

The pump station predesign report suggests that approximately 40% of the station capacity shall be used to service existing customers including new development that contributed to the construction of the new station. Therefore, the project should be considered to be approximately 60% SDC eligible.

Project 12 – Idaho Point Lift Station

The Idaho Point lift station is planned to be constructed on or around the eastern tip of Idaho Point to provide sewer service to this area which is not served by city sewer currently. The 1996 Facilities Plan suggests that the station be sized for a firm pumping capacity of around 0.25 MGD (175 gpm). The project includes approximately 3,000 lf of 4-inch diameter force main.

A preliminary project cost estimate is provided below:

1. Pump station (lump sum)..... $300,000
2. 3,000 lf of 4" force main pipe bursting ($60 / lf)..... $180,000
3. Add 30% for contingency, engineering, and administration costs..... $144,000
   Total estimated project costs..... **$624,000**

The improvements in this basin will service areas that are not currently served by City sewer. Therefore, it should be assumed that the project will be 100% SDC eligible as the need for the project is based entirely on expanding the current service area of the system.

Project 13 – Thiel Creek Lift Station

The Thiel Creek lift station is planned to be constructed in the southernmost portion of the system, near the confluence of Thiel Creek and the ocean. The 1996 Facilities Plan recommends that the station be

sized for a firm pumping capacity of around 2 MGD (1,400 gpm). Along with a new pump station, the project includes around 7,500 lf of 12-inch diameter force main.

A preliminary project cost estimate is provided below:

1. Pump station (lump sum) $600,000
2. 7,500 lf of 12" force main ($95 / lf) $712,500
3. Add 30% for contingency, engineering, and administration costs $393,750
   Total estimated project costs **$1,706,250**

As the Thiel Creek station is expected to benefit only a single developer or a limited development area, it is not considered to be an SDC eligible activity.

Project 14 – Thiel Creek Gravity Sewer

The 1996 Facilities Plan calls for approximately 20,000 lineal feet of gravity sewer and manholes to convey sewage to the new Thiel Creek pumping station. The gravity sewer will provide city sewer to a large area that is currently outside of the service area.

A preliminary cost estimate for the project is provided below:

1. 20,000 lf of 8" gravity piping and manholes ($85 / lf) $1,700,000
2. Add 30% for contingency, engineering, and administration costs $510,000
   Total estimated project costs **$2,210,000**

As the planned gravity piping is to only service a single developer or a limited area, it is not considered to be an SDC eligible project.

Project 15 – Moore Creek Lift Station

The Moore Creek lift station is planned to be constructed near SW 86th Court in the southern portion of the system. The 1996 Facilities Plan recommends that the station be designed to provide a firm pumping capacity of around 0.7 MGD (500 gpm). The project is to include approximately 1,000 lf of 6-inch diameter force main.

1. Pump station (lump sum) $500,000
2. 1,000 lf of 6" force main ($70 / lf) $70,000
3. Add 30% for contingency, engineering, and administration costs $171,000
   Total estimated project costs **$741,000**

As the Moore Creek station is planned to service a very small area or a single development, it should be funded through other mechanisms and should be not considered for SDC eligibility.

Project 16 – Moore Creek Gravity Sewer

The 1996 Facilities Plan included recommendations to provide gravity sewer services to the basin served by the Moore Creek pump station. This included approximately 2,500 lf of new gravity sewer piping and manholes.

A preliminary cost estimate for the project is provided below:

1. 2,500 lf of 8" gravity piping and manholes ($85 / lf) $212,500
2. Add 30% for contingency, engineering, and administration costs..... $63,750
   Total estimated project costs..... **$276,250**

As with the Moore Creek pump station, gravity piping within this basin is intended to benefit a limited number of properties. Therefore, this project is not considered to be SDC eligible.

Project 17 – Grant Creek Lift Station

The 1996 Facilities Plan included recommendations to expand gravity sewer service to the basin located due west of the airport between Highway 101 and the beach. This small basin would be served by a small amount of gravity sewer piping (see Project No. 19) and a new lift station. The pump station is to be sized for a capacity of around 1.5 MGD (1,000 gpm) with a new force main to lift sewage into the next gravity basin.

A preliminary cost estimate for the project is provided below:

1. Pump station (lump sum)..... $650,000
2. 2,500 lf of 10" force main ($75 / lf)..... $187,500
3. Add 30% for contingency, engineering, and administration costs..... $251,250
   Total estimated project costs..... **$1,088,750**

As this project is expected to benefit a single or a very small group of users, it is not recommended that it be considered as an SDC eligible project and that funding should be sought through other means.

Project 18 – Grant Creek Gravity Sewer Improvements

As part of the Grant Creek Basin improvements, this project will provide the gravity sewer service to the Grant Creek Basin. The 1996 Facilities Plan assumed the main collection improvements would include around 4,000 lf of new gravity piping.

A preliminary cost estimate for the project is provided below:

1. 4,000 lf of 8" gravity piping and manholes ($85 / lf) $340,000
2. Add 30% for contingency, engineering, and administration costs..... $102,000
   Total estimated project costs..... **$442,000**

As with the Grant Creek pump station improvements, gravity piping within this basin is intended to benefit a limited number of properties. Therefore, this project is not considered to be SDC eligible.

Project 19 – Henderson Creek Lift Station

The 1996 Facilities Plan recommends the construction of a new lift station near the confluence of Henderson Creek, west of Highway 101, to service a small sanitary sewer collection basin. Preliminary sizing suggests that the station have capacity for around 0.13 MGD (~90 gpm) nominal capacity. The project is also planned to include around 750 lf of force main.

A preliminary cost estimate for the project is provided below:

1.	Pump station (lump sum)	$200,000
2.	750 lf of 4" force main ($60 / lf)	$ 45,000
3.	Add 30% for contingency, engineering, and administration costs	$ 73,500
	Total estimated project costs	**$318,500**

Based on the opinion of City Staff, this project will provide service to more than a single developer and should be considered as partly SDC eligible. For the purposes of this methodology, it was recommended that this project be considered as approximately 25% SDC eligible.

Project 20 – Henderson Creek Gravity Sewer Improvements

The 1996 Facilities Plan recommends gravity sewer improvements in the vicinity of Henderson Creek to service the small basin. These improvements include some piping along Highway 101.

A preliminary cost estimate for the project is provided below:

1.	2,500 lf of 8" gravity piping and manholes ($85 / lf)	$212,500
2.	Add 30% for contingency, engineering, and administration costs	$ 63,750
	Total estimated project costs	**$276,250**

Due to the piping being located along Highway 101, the collection piping in this basin should be considered as partly an SDC eligible effort. Therefore, based on City Staff opinion, for the purposes of this methodology, this project will be considered as 25% SDC eligible. The balance of the project should be financed through other means.

Project 21 – Highway 101 Gravity Sewer – South of South Beach

The 1996 Facilities Plan calls for collection system piping to be installed along Highway 101 south of South Beach to service the southernmost reaches of the system.

A preliminary cost estimate for the project is provided below:

1.	1,500 lf of 18" gravity piping and manholes ($120 / lf)	$180,000
2.	2,200 lf of 21" gravity piping and manholes ($135 /lf)	$297,000
3.	2,000 lf of 27" gravity piping and manholes ($155 /lf)	$310,000
4.	Add 30% for contingency, engineering, and administration costs	$236,100
	Total estimated project costs	**$1,023,100**

As this piping will service a large area and many new users and the need for the facility is completely driven by development, we would consider this project to be 100% SDC eligible.

Project 22 – Nye Street Collection System Improvements

City Staff has suggested the need for improvements to the gravity sewer on Nye Street, just north of the Yaquina Bay Bridge. The existing 15-inch pipe is undersized and will soon be incapable of handling peak flows. While the overall system should be studied as part of an upcoming collection system master planning effort, the interim recommendation is to replace the existing facility with a new 24-inch diameter gravity sewer section for approximately 2,500 lineal feet. This improvement will also require upsizing the influent box at the sewer plant to handle the increased flow.

Based on the upsizing and staff recommendation, this project should be considered 50% SDC eligible.

A preliminary cost estimate for the project is provided below:

1. 2,500 lf of 24" gravity piping and manholes ($150 / lf) $375,000
2. Upsize/improve influent box at sewer plant $100,000
3. Add 30% for contingency, engineering, and administration costs..... $142,500
   Total estimated project costs..... **$617,500**

4.4.3 Wastewater CIP Project List Summary

Table 4.4.3 below summarizes the CIP projects developed above along with the original project costs and the updated project costs based on increases in the ENR index.

Table 4.4.3 – Wastewater CIP Project Summary List

Project No.	Project Description	Project Cost	Project Cost Date	ENR Index of Estimate	Current ENR Index	Adjusted Cost Estimate (current)
1	Wastewater System Upgrades Circa 2001	$42,000,000.00	2002	Complete	Complete	$42,000,000.00
2	Sally's Bend Lift Station	$1,089,400.00	Jan-07	7880	8007.48	$1,107,023.95
3	Sally's Bend Gravity Sewer	$1,105,000.00	Jan-07	7880	8007.48	$1,122,876.32
4	Jeffries Creek Lift Station	$461,500.00	Jan-07	7880	8007.48	$468,965.99
5	Jeffries Creek Gravity Piping	$442,000.00	Jan-07	7880	8007.48	$449,150.53
6	Big Creek Lift Station Upgrades & Force Main	$1,100,000.00	Jan-07	7880	8007.48	$1,117,795.43
7	Big Creek Gravity Sewer	$497,250.00	Jan-07	7880	8007.48	$505,294.34
8	48th Street Lift Station Upgrade & Force Main	$991,250.00	Jan-07	7880	8007.48	$1,007,286.11
9	Schooner Creek Lift Station Upgrade & Force Main	$861,250.00	Jan-07	7880	8007.48	$875,183.01
10	Schooner Creek Gravity Collection Piping	$1,215,500.00	Jan-07	7880	8007.48	$1,235,163.95
11	Neolha Point Lift Station and Force Main	$175,000.00	Mar-07	Complete	Complete	$175,000.00
12	Idaho Point Lift Station and Force Main	$624,000.00	Jan-07	7880	8007.48	$634,094.86
13	Theil Creek Lift Station & Force Main	$1,706,250.00	Jan-07	7880	8007.48	$1,733,853.14
14	Theil Creek Gravity Sewer Piping	$2,210,000.00	Jan-07	7880	8007.48	$2,245,752.64
15	Moore Creek Lift Station and Force Main	$741,000.00	Jan-07	7880	8007.48	$752,987.65
16	Moore Creek Gravity Sewer Piping	$276,250.00	Jan-07	7880	8007.48	$280,719.08
17	Grant Creek Lift Station and Force Main	$1,088,750.00	Jan-07	7880	8007.48	$1,106,363.43
18	Grant Creek Gravity Sewer Piping	$442,000.00	Jan-07	7880	8007.48	$449,150.53
19	Henderson Creek Lift Station and Force Main	$318,500.00	Jan-07	7880	8007.48	$323,652.59
20	Henderson Creek Gravity Sewer Piping	$276,250.00	Jan-07	7880	8007.48	$280,719.08
21	Hwy 101 Gravity Sewer South of South Beach	$1,023,100.00	Jan-07	7880	8007.48	$1,039,651.37
22	Nye Street Sewer Replacement	$617,500.00	Mar-07	7880	8007.48	$627,489.71
				Total		**$59,538,173.72**

The CIP project list above indicates the date when the original project cost estimate was prepared. Another column is provided indicating the corresponding Engineering News Record Index (ENR Index) for the original cost estimate. 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.

As significant increases in material and construction costs have occurred since the original estimate was prepared, costs have been increased based on the current ENR Index value. In the future, costs on the CIP can be updated using the new ENR values as needed.

4.4.4 Determination of Project SDC Eligibility

The project descriptions provided in Sections 4.4.1 and 4.4.2 include discussions on the level of SDC eligibility that has been determined for each project. In some cases, this eligibility is based on the fact that the planned project will service all new customers and directly service growth. In other cases, a project will correct some existing deficiencies as well as provide expansion capacity for future growth. In these cases, projects are considered partially SDC eligible.

When planning information was available in the Facilities Plan or elsewhere, this information was used to aid in the determination of the percentage of eligibility for each project. When adequate information was not available, bridge planning is discussed in this section, along with input from City staff, to estimate an appropriate eligibility percentage.

Table 4.4.4 below provides a summary of the wastewater CIP projects and the amount of SDC eligibility that should be considered for each project.

Table 4.4.4 – Wastewater System Project SDC Eligibility Summary

Project No.	Project Description	Adjusted Cost Estimate (current)	Reimbursement SDC Eligible (Y/N)	Improvement SDC Eligible (Y/N)	% SDC Eligible	SDC Eligible Cost
1	Wastewater System Upgrades Circa 2001	$42,000,000.00	Y	N	40%	$3,225,228.80
2	Sally's Bend Lift Station	$1,107,023.95	N	Y	100%	$1,107,023.95
3	Sally's Bend Gravity Sewer	$1,122,876.32	N	Y	100%	$1,122,876.32
4	Jeffries Creek Lift Station	$468,965.99	N	N	0%	$0.00
5	Jeffries Creek Gravity Piping	$449,150.53	N	N	0%	$0.00
6	Big Creek Lift Station Upgrades & Force Main	$1,117,795.43	N	Y	50%	$558,897.72
7	Big Creek Gravity Sewer	$505,294.34	N	Y	50%	$252,647.17
8	48th Street Lift Station Upgrade & Force Main	$1,007,286.11	N	Y	50%	$503,643.06
9	Schooner Creek Lift Station Upgrade & Force Main	$875,183.01	N	Y	50%	$437,591.51
10	Schooner Creek Gravity Collection Piping	$1,235,163.95	N	Y	0%	$0.00
11	Neolha Point Lift Station and Force Main	$175,000.00	Y	Y	60%	$105,000.00
12	Idaho Point Lift Station and Force Main	$634,094.86	N	Y	100%	$634,094.86
13	Theil Creek Lift Station & Force Main	$1,733,853.14	N	Y	0%	$0.00
14	Theil Creek Gravity Sewer Piping	$2,245,752.64	N	Y	0%	$0.00
15	Moore Creek Lift Station and Force Main	$752,987.65	N	Y	0%	$0.00
16	Moore Creek Gravity Sewer Piping	$280,719.08	N	Y	0%	$0.00
17	Grant Creek Lift Station and Force Main	$1,106,363.43	N	Y	0%	$0.00
18	Grant Creek Gravity Sewer Piping	$449,150.53	N	Y	0%	$0.00
19	Henderson Creek Lift Station and Force Main	$323,652.59	N	Y	25%	$80,913.15
20	Henderson Creek Gravity Sewer Piping	$280,719.08	N	Y	25%	$70,179.77
21	Hwy 101 Gravity Sewer South of South Beach	$1,039,651.37	N	Y	100%	$1,039,651.37
22	Nye Street Sewer Replacement	$627,489.71	N	Y	50%	$313,744.85
				Total		**$9,451,492.52**

The identified SDC eligible costs above will be used to calculate appropriate reimbursement and improvement SDC for the wastewater system in Newport below.

4.5 Calculation of Wastewater Reimbursement SDC

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. This section will establish the methodology and the charge for water system reimbursement SDC's in Newport for the wastewater system.

A summary of the recommended reimbursement SDC for the piping improvements is provided below:

Table 4.5.1 - Reimbursement SDC Calculation Summary

Project No.	Project Description	SDC Eligible Cost
1	Wastewater System Upgrades Circa 2001	3,225,228.80
11	Neolha Point Lift Station and Force Main	105,000.00
	Total Reimbursement Eligible Costs (A)	3,330,228.80
	Total Growth EDU's per Section 4.3 (B)	2,849
	Maximum Reimbusement Water SDC (A/B)	**$1,169.12**

Based on the above analysis, the reimbursement SDC for the wastewater system should not exceed approximately $1,169.

4.6 Calculation of Wastewater Improvement SDC

Calculation of the improvement SDC will be based upon the methodology and the establishment of the SDC eligible project costs as outlined earlier in this section. The following table provides a summary of the total cost of SDC eligible projects recommended in the Water System Master Plan that have not yet been constructed. In order to account for construction cost increases since the time of the Master Plan, we have used prorated costs based on the current ENR Index.

Table 4.6.1 – Improvement SDC Calculation Summary

Project No.	Project Description	SDC Eligible Cost
2	Sally's Bend Lift Station	$1,107,023.95
3	Sally's Bend Gravity Sewer	$1,122,876.32
4	Jeffries Creek Lift Station	$0.00
5	Jeffries Creek Gravity Piping	$0.00
6	Big Creek Lift Station Upgrades & Force Main	$558,897.72
7	Big Creek Gravity Sewer	$252,647.17
8	48th Street Lift Station Upgrade & Force Main	$503,643.06
9	Schooner Creek Lift Station Upgrade & Force Main	$437,591.51
10	Schooner Creek Gravity Collection Piping	$0.00
12	Idaho Point Lift Station and Force Main	$634,094.86
13	Theil Creek Lift Station & Force Main	$0.00
14	Theil Creek Gravity Sewer Piping	$0.00
15	Moore Creek Lift Station and Force Main	$0.00
16	Moore Creek Gravity Sewer Piping	$0.00
17	Grant Creek Lift Station and Force Main	$0.00
18	Grant Creek Gravity Sewer Piping	$0.00
19	Henderson Creek Lift Station and Force Main	$80,913.15
20	Henderson Creek Gravity Sewer Piping	$70,179.77
21	Hwy 101 Gravity Sewer South of South Beach	$1,039,651.37
	Total Improvement Eligible Costs (A)	$5,807,518.87
	Total Growth EDU's per Section 4.3 (B)	2,849
	Maximum Improvement Wastewater SDC (A/B)	**$2,038.80**

Based on this methodology, a wastewater improvement SDC in Newport should not exceed approximately $2,022 per EDU.

The SDC values discussed previously have not been adjusted for SDC credits or compliance costs.

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 credit 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

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

Establishing a precise financing credit for Newport 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.

To assist the City in establishing a credit, an effort was made to provide a range of credits that vary with the amount of project costs that will be funded through rate increases (sinking funds or debt repayment) and with time, as the amount of credit that should be provided depends on how long a new user will be paying an increased user fee. For the purposes of this analysis, it was assumed that a loan could be secured at 5-percent for a 20-year term and the existing EDU customers would form the basis for setting the new user rate. Additional revenues appreciated through new users may be utilized to retire the debt earlier or be used for new projects that may be added to the CIP at a later date.

Table 4.7.2 – Project Funding Scenarios
SDC Eligible Percentage of Wastewater Projects Funded Through Loans
Resulting in a User Rate Increase

% Project Cost Paid by Loan	Total Loan Required	Monthly User Rate Increase per EDU
100	$9,451,493	$4.82
75	$7,088,619	$3.62
50	$4,725,746	$2.41
25	$2,362,873	$1.21
0	$0	$0.00

4.7.3 Present Worth of User Rate Increase and SDC Credits

To establish an SDC credit, the present worth of potential future rate increases must be established. This present worth value varies based on the amount of time that is involved, the interest rate utilized, and the monthly rate increase that is being considered.

To provide the City with a range of information to assist them in determining an appropriate SDC credit, the following tables are provided with different SDC credit recommendations. The City may wish to adjust the SDC credit throughout the planning period depending on the rate increases that are passed to complete new SDC eligible wastewater system projects and for adjustments made to the interest rate used to calculate the present worth of the SDC credit.

The following tables include potential present-worth-based SDC credits that vary by the amount of money that may be paid through a loan or other funding that requires increased user fees and also by the amount of time that a potential user may be paying those fees. An interest rate of 5% was utilized for this calculation.

Table 4.7.3.a – Present Worth SDC Credit Table
100% Loan Financing

New User Connects to System in Year No.	Rounded Time Paying New Rate (yrs)	Present Worth	Rounded SDC Credit
0-5	20	$730.60	$731
6-10	15	$609.72	$610
11-15	10	$454.59	$455
16-20	5	$255.50	$256

Table 4.7.3.b – Present Worth SDC Credit Table
75% Loan Financing

New User Connects to System in Year No.	Rounded Time Paying New Rate (yrs)	Present Worth	Rounded SDC Credit
0-5	20	$547.95	$548
6-10	15	$457.29	$457
11-15	10	$340.94	$341
16-20	5	$191.63	$192

Table 4.7.3.c – Present Worth SDC Credit Table
50% Loan Financing

New User Connects to System in Year No.	Rounded Time Paying New Rate (yrs)	Present Worth	Rounded SDC Credit
0-5	20	$365.30	$365
6-10	15	$304.86	$305
11-15	10	$227.30	$227
16-20	5	$127.75	$128

Table 4.7.3.d – Present Worth SDC Credit Table
25% Loan Financing

New User Connects to System in Year No.	Rounded Time Paying New Rate (yrs)	Present Worth	Rounded SDC Credit
0-5	20	$182.65	$183
6-10	15	$152.43	$152
11-15	10	$113.65	$114
16-20	5	$63.88	$64

The City must determine the credit that will be most appropriate at the time of an SDC assessment based on timing and interest rates.

Alternatively, it may be appropriate for the City to err on the conservative side and offer the maximum potential credit of $731. This will also eliminate the need to recalculate credits based on the length of time left on a particular project loan or the principal value of the original loan.

The City must also adjust the final SDC's to include a compliance cost component. Compliance costs are discussed in Section 8.0 of this methodology.

4.8 Wastewater System SDC Summary

Section 4 has been developed to provide the City of Newport with the methodology needed to establish the maximum defendable SDC for the wastewater system. The following table provides a summary of the information utilized to complete this analysis:

Table 4.8.1 – Wastewater System SDC
Summary per EDU (not including compliance costs)

SDC Component	SDC Amount
Improvement Fee	
Per Section 4.6	$2,038.80
Reimbursement Fee	
Per Section 4.5	$1,169.12
Subtotal of Wastewater SDC Fees per EDU	**$3,207.91**
Credit Summary	
Upper Range Credit (100% Financing Credit)	$731
Mid Range Credit (75% Financing Credit)	$548
Mid Range Credit (50% Fincancing Credit)	$365
Low Range Credit (25% Financing Credit)	$183

The maximum defendable SDC for the wastewater system is around $3,200 per EDU without the application of an SDC credit or compliance costs. 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 adjust this charge in any way they feel is appropriate. 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.

If the City elects to charge the maximum defendable wastewater SDC of $3,208 and allow the maximum recommended credit of $731, the total recommended wastewater system SDC would be $2,477 per EDU, not including SDC compliance costs.

4.9 SDC Schedule for Residential and Non-Residential Customers

The wastewater system SDC established in Section 4.8 above is based on a cost per EDU or cost per single residential dwelling. For non-residential developments, a plan review must be performed to determine the equivalent number of EDU's of the development.

Tables 3.10.1 and 3.10.2, in the water system SDC methodology, should also be used to assess wastewater system SDC's for both residential and non-residential customers.

As discussed in Section 3.10, the water/sewer values indicated in Table 3.10.1 represent a wide assortment of residential and non-residential customer types along with estimates of the number of EDU's that should be associated with each. However, the table does not address all potential customers. In some cases, the assessment system may not fairly represent a new customer's actual impact on the water and wastewater systems. In these cases, it is recommended that the City allow for an appeal process as described in Section 3.11. The appeal process includes the assessment of at least a partial SDC based on the development EDU's calculated using the table, and collection of additional fees at a later time following review of the facility's actual water usage.

Section 5

5.0 Storm Drainage SDC Methodology

5.1 Introduction

This section describes in detail the calculations, background information, and methodology used to develop and identify the maximum defendable storm drainage SDC for the City of Newport. This section will seek to identify the existing and future capacity requirements as well as provide a summary of the City's stormwater capital improvement plan (CIP).

This section will develop a method for determining system population or input based on impervious surface methodology and will seek to make projections for future capacity requirements, assuming an increase in impervious surfaces.

5.2 System Overview and Background

The City of Newport has completed several planning documents over the years to provide a level of planning support for the City's stormwater system. A summary of each is provided below:

Storm Sewer Facilities Plan (CH2M Hill, 1990) This planning effort was part of an overall infrastructure planning document that looked at all of the public infrastructure in the City. The Storm Sewer Facilities Plan considers system-wide issues and divides the City into several storm drainage basins. Deficiencies were identified and improvements and cost estimates prepared.

South Beach Storm Water Master Plan (SHN Consulting Engineers, 2004) This planning effort was commissioned to address storm drainage in the southern part of the system in response to current and anticipated growth patterns in the area. The study addresses several deficiencies in the southern part of the system and includes recommended improvements and cost estimates to address these deficiencies.

5.2.1 Overall System Description

Being a storm drainage system, the existing facilities are made up of a network of ditches, piping, manholes, catch basins, swales, outfalls, and other facilities typical to a storm drainage system.

Piping ranges from small 8-inch laterals to catch basins up to large culverts. In general, the storm drainage system has evolved over time in response to needs and drainage problems that have arisen.

The City funds maintenance and development of the storm drainage system through a variety of sources. The City does not currently charge a storm drainage fee as part of the regular utility charges for its customers.

5.2.2 Basis for Population Impact & System Growth

The impact of growth on the stormwater system will be based on an impervious surface methodology. In general, this methodology will determine how much impervious surface a typical EDU will add to the system. All new development can then be compared against this typical value to determine how many EDU's are being added and how this will impact the stormwater facilities within the City of Newport.

5.3 EDU Methodology and Projected Growth

This section will seek to describe the methods used in this SDC methodology to establish the growth component of the storm drainage SDC. The methodology is to be based on impervious surface methodology and shall be based on information received from the City of Newport Planning Department for typical development in recent years.

According to the City's planning department, 55 new residential dwellings were added to the City during 2006. In each case, the planning department, as part of the plan review process, measured and recorded all new impervious areas that were part of each new improved property. These impervious surfaces includes such areas as:

- Roof areas
- Driveways
- Sidewalks
- Patios and impervious decks
- Outbuildings
- Any other improvement which will result in water running off the property

Based on the 55 new single family dwellings constructed in 2006, a total impervious surface area of 150,010 square feet of impervious surfaces were added to the system. This is equal to around 2,727 square feet of impervious surface per EDU.

Based on this analysis, the City should consider that a typical EDU in Newport shall add around 2,727 square feet of impervious surface to the system. This shall be used as the standard for calculating the number of stormwater EDU's for all new development in the City of Newport.

Section 3 presents the growth potential of the water and sewer system. It is estimated that, based on this growth scenario, that approximately 2,849 new EDU's will be added to the system during the planning period. It is reasonable to assume that each EDU added will have a typical amount of impervious surface that will also be added to the system. Therefore:

> 2,849 new EDU's x 2,727 square feet of impervious surface per EDU = 7.8-million square feet or around 178 acres of new impervious surface added to the system.

Therefore, the growth potential for the planning period for the stormwater SDC methodology is summarized as:

- 2,727 square feet per new EDU
- Approximately 2,849 new EDU's added to the system
- Approximately 7.8-million square feet of impervious surface added to the system
- Approximately 178 acres of impervious surface added to the system

These figures will be used later in this section to calculate appropriate SDC charges for the stormwater system.

5.4 CIP Project Summary and Project Costs

The City's planning documents include several recommended projects that the City wishes to undertake as part of their stormwater CIP. This section will seek to provide a brief description of each project and discuss the potential for SDC eligibility for each project. A summary of the Stormwater CIP is provided in Table 5.4.1.

5.4.1 Project Descriptions and Need

Project 1 – 700 lf of 24-inch Storm Drain. This project is a recommended project out of the 1990 Public Facilities Plan and includes improvements in the vicinity of Nye Street and NW 20th in the northern part of the community. According to City staff, the need for the project is still valid and should still be included as part of the stormwater CIP.

According to the opinions of staff, this project will correct existing deficiencies and is not necessary to service growth in the area. Therefore, the project should not be considered as SDC eligible.

Project 2 – 200 lf of 24-inch Storm Drain. This project is a recommended project out of the 1990 Public Facilities Plan and includes improvements in the vicinity of SW Government Street. According to City staff, the need for the project is still valid and should still be included as part of the stormwater CIP.

According to the opinions of staff, this project will correct existing deficiencies and is not necessary to service growth in the area. Therefore, the project should not be considered as SDC eligible.

Project 3 – 800 lf of 36-inch Storm Drain. This project is a recommended project out of the 1990 Public Facilities Plan and includes improvements in the vicinity of SE Benson Road. According to City staff, the need for the project is still valid and should still be included as part of the stormwater CIP.

Staff has stated that this project is needed primarily to provide capacity for anticipated growth in the area. The project will provide capacity for a small amount of existing drainage along Benson Road. For the purposes of this methodology, it is recommended that this project be considered as 90% SDC eligible.

Project 4 – 800 lf of 36-inch Storm Drain. This project is a recommended project out of the 1990 Public Facilities Plan and includes improvements located along Yaquina Bay Road just west of Benson Road. According to City staff, the need for the project is still valid and should still be included as part of the stormwater CIP.

Staff has recommended that this project is needed primarily to provide capacity for anticipated growth in the area. For the purposes of this methodology, it is recommended that this project be considered as 90% SDC eligible.

Project 5 – This project has been dropped from the CIP.

Project 6 – 800 lf of 18-inch Storm Drain. This project is a recommended project out of the 1990 Public Facilities Plan and includes improvements located in the vicinity of NW 56th Avenue. According to City staff, the need for the project is still valid and should still be included as part of the stormwater CIP.

Staff has recommended that this project is needed only partially to address growth in the area and primarily to correct existing deficiencies. For the purposes of this methodology, it is recommended that this project be considered as 25% SDC eligible.

Project 7 – Redirect Drainage to Basin 7 (5A). This project is part of the recommendations that came out of the 2004 South Beach Storm Water Master Plan (Project 5A). The project includes several improvements located within the southern portion of the system as outlined in the 2004 Plan.

The 2004 Plan recommends that the project be considered as 100% SDC eligible in that it is necessary only due to anticipated growth in the area.

Project 8 – South Jetty Residential Development Improvements (7). This project is part of the recommendations that came out of the 2004 South Beach Storm Water Master Plan (Project 7). The project includes several community drainage improvements in the vicinity of the South Jetty as outlined in the 2004 Plan.

The 2004 Plan recommends that the project be considered as 25% SDC eligible as it will primarily correct existing deficiencies but components must be upsized to allow for increased flows that are expected due to growth in the area.

Project 9 – Agate Way Storm Drainage Improvements. This project was developed and recommended by Staff to address drainage issues in the vicinity of Agate Way. The project is to include approximately 500-lf of 18-inch storm drainage piping.

According to staff, the project is needed to correct existing deficiencies but components should be doubled in size to provide additional capacity for potential future development. Therefore, the project should be considered as 50% SDC eligible.

Table 5.4.1 below summarizes the stormwater CIP projects for the City of Newport. The project cost estimates have been updated using the ENR index as appropriate.

Table 5.4.1 – Stormwater CIP Project Summary List

Project No.	Project Description	Project Cost	Project Cost Date	ENR Index of Estimate	Current ENR Index	Adjusted Cost Estimate (current)
1	Project 1 - 700 lf 24-inch Storm Drain *	$42,000.00	Dec-90	4732	8007.48	$71,072.31
2	Project 2 - 200 lf of 24-inch Storm Drain*	$12,000.00	Dec-90	4732	8007.48	$20,306.37
3	Project 3 - 800 lf of 36-inch Storm Drain*	$182,000.00	Mar-07	7880	8007.48	$184,944.34
4	Project 4 - 800 lf of 36-inch Storm Drain*	$182,000.00	Mar-07	7880	8007.48	$184,944.34
5	Droppped					
6	Project 6 - 800 lf of 18-inch Storm Drain*	$40,000.00	Dec-90	4732	8007.48	$67,687.91
7	Project 5A - Redirect Drainage to Basin 7 **	$1,264,832.00	Jun-04	7308	8007.48	$1,385,894.49
8	Project No. 7 - South Jetty Residential Dev. **	$709,839.00	Jun-04	7308	8007.48	$777,780.73
9	Agate Way Storm Drainage	$81,250.00	Mar-07	7880	8007.48	$82,564.44
				Total		**$2,775,194.92**
*	Project developed in 1990 Public Facilities Plan, Section 7					
**	Project developed in 2004 South Beach Stormwater Master Plan					

5.5 SDC Eligibility

The SDC methodology must include a discussion of the percentage of each project's cost that can be attributed as necessary for 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.

Section 5.4 above includes a brief description of each project along with a discussion of each project's SDC eligibility. A summary of the SDC eligibilities for each project is provided below in table 5.5.1.

Table 5.5.1 – Stormwater Project SDC Eligibility Summary

Project No.	Project Description	Adjusted Cost Estimate (current)	Reimbursement SDC Eligible (Y/N)	Improvement SDC Eligible (Y/N)	% SDC Eligible	SDC Eligible Cost
1	Project 1 - 700 lf 24-inch Storm Drain *	$71,072.31	N	N	0%	$0.00
2	Project 2 - 200 lf of 24-inch Storm Drain*	$20,306.37	N	N	0%	$0.00
3	Project 3 - 800 lf of 36-inch Storm Drain*	$184,944.34	N	Y	90%	$166,449.90
4	Project 4 - 800 lf of 36-inch Storm Drain*	$184,944.34	N	Y	90%	$166,449.90
5	Droppped					
6	Project 6 - 800 lf of 18-inch Storm Drain*	$67,687.91	N	Y	25%	$16,921.98
7	Project 5A - Redirect Drainage to Basin 7 **	$1,385,894.49	N	Y	100%	$1,385,894.49
8	Project No. 7 - South Jetty Residential Dev. **	$777,780.73	N	Y	25%	$194,445.18
9	Agate Way Storm Drainage	$82,564.44	N	Y	50%	$41,282.22
				Total		$1,971,443.67

5.6 Calculation of Storm Drainage Reimbursement SDC Charge

None of the projects in the stormwater CIP are to be considered for a reimbursement SDC. Therefore, the stormwater reimbursement SDC is $0.

5.7 Calculation of Storm Drainage Improvement SDC Charge

Calculation of the improvement SDC will be based upon the methodology and the establishment of the SDC eligible project costs as outlined earlier in this section. The following table provides a summary of the total cost of SDC eligible projects recommended in the Water System Master Plan that have not yet been constructed. In order to account for construction cost increases since the time of the Master Plan, we have used prorated costs based on the current ENR Index.

Table 5.7.1 – Improvement SDC Calculation Summary

Project No.	Project Description	SDC Eligible Cost
1	Project 1 - 700 lf 24-inch Storm Drain *	0.00
2	Project 2 - 200 lf of 24-inch Storm Drain*	0.00
3	Project 3 - 800 lf of 36-inch Storm Drain*	166,449.90
4	Project 4 - 800 lf of 36-inch Storm Drain*	166,449.90
5	Droppped	0.00
6	Project 6 - 800 lf of 18-inch Storm Drain*	16,921.98
7	Project 5A - Redirect Drainage to Basin 7 **	1,385,894.49
8	Project No. 7 - South Jetty Residential Dev. **	194,445.18
9	Agate Way Storm Drainage	41,282.22
	Total Improvement Eligible Costs (A)	1,971,443.67
	Total Growth EDU's per Section 5.3 (B)	2,849
	Maximum Improvement Stormwater SDC	**$692.10**
	(Based on EDU's, $/EDU)	
	Total Growth Impervious Area per Section 5.3 (sf)	7,769,159
	Maximum Improvement Stormwater SDC	**$0.25**
	(Based on area, $/sf)	

Based on this analysis, a typical EDU in Newport will pay around $690 for the improvement stormwater SDC based on an average impervious surface area of around 2,727 square feet per EDU. This equates to a unit charge of around $0.25 per square foot of impervious surface area.

5.8 SDC Credits for Storm Drainage SDC

An analysis of potential SDC credits should be included as part of any 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:

5.8.1 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 $50,000 in SDC fees for the stormwater system. If the same developer undertakes all or a portion of a stormwater improvement project that appears on the CIP, the developer should be eligible for some level of SDC credit for the value of the improvement he has undertaken. However, the improvement offset credit cannot exceed the value of the SDC or, in this case, $50,000.

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

5.8.2 Financing Credit - Project Costs and Potential Loan Amounts

As the City does not currently have a rate structure or user fee for the stormwater system, it is not possible to develop a financing credit. However, if a stormwater utility is established and the City seeks to obtain funding for the stormwater CIP projects through loans to be paid back through increased user rates, an appropriate credit should be developed for that increase in user rates.

A potential financing credit will not be developed at this time for the stormwater system.

5.8.3 Impervious Surface Reduction Credit

In some cases, credits may be appropriate for development that incorporates improvements that are designed to reduce the impact of increased drainage on the stormwater system. These measures may include construction of cisterns, detention facilities, pervious surface technology, and other efforts designed to reduce runoff from a developed property.

In each case, the City would be required to review proposed mitigation measures and determine an appropriate SDC credit for impervious surface reduction. In no case should the credit be more than the value of the SDC charge would have been.

The City is not required to provide credits for these types of mitigating practices. Also, in the case of typical residential development, the cost of the impervious surface reducing efforts will likely be far greater than the stormwater SDC charge. However, in some commercial applications, there may be an advantage for a developer to incorporate these types of improvements into a project.

5.9 Storm SDC Summary

Section 5 has been developed to provide the City of Newport with the methodology needed to establish the maximum defendable SDC for the stormwater system. The following table provides a summary of the information utilized to complete this analysis:

Table 5.9.1 – Stormwater System SDC Summary

SDC Component	SDC Amount
Improvement Fee	
$/EDU	$692
$/square foot	$0.25
Reimbursement Fee	$0
Credit Summary	NA

The maximum defendable SDC for the stormwater system is around $692 per EDU or $0.25 per square foot of impervious surface without the application of an SDC credit or compliance costs. 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 adjust this charge in any way they feel is appropriate. 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.

5.10 Storm SDC Assessment Schedule

Assessment of a stormwater SDC is a relatively simple process. A summary of a potential assessment schedule if provided below:

5.10.1 Residential Assessment Methods

Assessment of a stormwater SDC on a residential customer is a relatively simple process. The choice of assessment methods falls into one of two categories: assessment based on an assumed EDU basis or based on the impervious surface area created by each new customer.

Under the EDU method, each residential customer is assumed to be one EDU, regardless of the size of the new home or residential improvements. This method is the easier to administer as it does not require the City to review plans and measure or calculate impervious surface.

The EDU method assumes all residential development is relatively equal in the eyes of the stormwater SDC methodology.

The alternative is for the City to continue to perform site plan reviews, measure and calculate impervious surface area, and charge each new residential development based on the impervious surface area that is being added to the system. If this method is chosen, the unit price of $0.25 per square foot should be used. This method requires additional effort by the City to administer the SDC assessment, but it provides for an equitable assessment method for all development.

5.10.2 Non-residential Assessment Methods

It is recommended that all non-residential development be assessed on a unit basis per square foot of impervious surface area. Using this method, a site plan for each new development must be reviewed to determine the amount of impervious surface being added. The resulting assessment will be equitable for each case presented to the City for consideration.

Specifically, non-residential development should be assessed at the incremental rate of $0.25 per square foot of impervious surface area added to a previously pervious site. Accommodations may be made, on a case-by-case basis, for efforts to mitigate runoff impacts. These mitigation efforts may include detention systems, pervious surface materials, and others.

Section 6

6.0 Transportation SDC Methodology

6.1 Introduction

This section describes in detail the calculations, background information, and methodology used to develop and identify the maximum defendable transportation SDC for the City of Newport. This section will seek to identify the existing and future capacity requirements as well as provide a summary of the City's stormwater capital improvement plan.

This section will define the use base of the transportation system using a trip generation method and using commonly accepted trip tables for the assessment of a transportation SDC for both residential and nonresidential development.

6.2 Transportation System Overview and Background

The City of Newport owns and operates a network of roads, sidewalks, buses, and other public transportation facilities that are used by the public to make their way around and through the City. The City shares some transportation facilities with Lincoln County and the Oregon Department of Transportation.

The City has completed some transportation planning documents over the years. The current transportation plan was prepared in June 1997 by Parsons Brinkerhoff Quade & Douglas Inc. The 1997 Plan includes descriptions of deficiencies and needs along with recommended improvements.

During the preparation of this methodology, a transportation plan update was being developed. The CIP and results of this planning were not available at the time that this methodology was completed. The new TSP update was prepared by Parametrix, Inc.

6.2.1 Overall System Description

The transportation system in Newport is composed of vehicle and pedestrian facilities. A brief summary of each major system component is included below:

State Facilities: Newport is bisected north and south by State Highway 101. It is further bisected east and west by State Highway 20, which is located just north of the Yaquina Bay.

County Roads: The City of Newport transportation network includes some roads that fall under county jurisdiction. These include some parts of Avery Street, SE Ash Street, and portions of the Bay Road.

Local Roads: The City owns and maintains many miles of local, collector, and arterial streets within the City Limits. The vast majority of the local roads are paved and include curb and gutter. Some minor roads are gravel while others are paved without curb and gutter.

Pedestrian: The City owns and maintains miles of sidewalks, pathways, and other pedestrian facilities. The City also operates a simple bus system to provide some level of public transportation to local citizens.

6.2.2 Basis for System Impact and Growth Component

The growth component for the transportation SDC should be based on a trip count method. Under this methodology, users that generate more trips and make greater use of the system should pay a larger share of the project costs for developing additional capacity.

For example, the Institute of Transportation Engineers (ITE) publishes tables that summarize the peak traffic impacts due to various types of land use. In these tables, for example, the following trip counts may be found:

- Typical residential dwelling (peak hourly trip generation): 10 trips per day
- Nursing home: 2.7 trips per 1,000 square feet of gross floor area
- General retail: 20.1 trips per 1,000 square feet of gross floor area

A complete listing of other ITE trip counts can be found in Section 6.10.

Often, a community will seek to normalize trip counts to a standard residential dwelling. In other words, if a typical residential dwelling generates 10 trip counts under peak conditions, the entire trip count list can be divided by 10 to normalize the trip generations to a typical EDU. Therefore, trip generation can be expressed in EDU's. Table 6.10.1 expresses different land uses in both trip counts and in normalized tip counts or EDU's.

6.3 EDU Methodology

This section will seek to establish an EDU methodology for the transportation SDC and determine the growth potential within the SDC sector.

Typically, a transportation master plan or TSP will be used to establish the anticipated growth of the transportation system in a community. However, the City of Newport's TSP does not include a projection of trip counts for the planning period. Therefore, until such information is available, an alternative method must be established to determine the growth potential within the system.

The following describes the methods used to estimate the growth potential within the transportation system:

6.3.1 Internal Trip Generation Growth

Internal trips are defined as trips that begin and end within the City's transportation network. Internal trips are generally related to residents of the City traveling to various destinations within the City or business traffic within the City.

For the purposes of this methodology, it is assumed that general development and growth within the City will create increases in the internal trip generation. Section 3 of this methodology establishes that approximately 2,849 EDU's are expected to be added to the water system over the planning period. This includes residential, commercial, and industrial development.

If we assume that each EDU will create a corresponding increase in trip generation, it can be said that internal trip counts should increase by the same EDU amount.

If we use the ITE chart to determine that a typical residential EDU will generate a peak trip count rate of 10 trips per day per EDU, then we can determine that approximately 28,490 new trips will be generated within the City's transportation system by the end of the planning period.

6.3.2 External Trip Generation Growth

External trip generation is defined as trips that begin outside of the City and end within the City or simply pass-through traffic, such as tourist traffic passing through Newport on Highway 101 or Highway 20.

External traffic may include residents of other nearby coastal areas such as Waldport, Depoe Bay, or Seal Rock who live outside the City but travel into the City each day for work. Other examples might be commercial or other traffic that comes from outside the area each day to do business or deliver goods within the City.

It is difficult to predict the amount of external trips that impact the City's transportation system. It is even more difficult to predict how those external trips may change in the future.

For the purposes of this methodology, it is recommended that external trips be defined as a percentage of the internal trips. The City's TSP states that the transportation system is to be capable of handling the peak hourly traffic loads as would be typical of an afternoon traffic condition in the month of August. Under these conditions, there would be significant tourist traffic on the roads, external commercial traffic, and others returning to their homes outside of the City.

Therefore, it is recommended that a conservative figure be utilized to define the potential external trip load. A rate of 20% assumes that 2 out of 10 trips generated during a peak hour condition in August would be the result of an external or pass-through trip. This figure seems reasonably conservative and will be used to form the basis for external trips in this methodology.

At a rate of 20%, it is estimated that a total of 5,697 external trips will be generated by the end of the planning period.

6.3.3 Total Trips and Transportation Growth in EDU's

By adding internal and external growth potential in the transportation system, we calculate a total trip increase in the system of 34,182 additional trips.

If we divide the total additional trips by the typical residential EDU rate of 10 trips per residential dwelling, we calculate an increase in the transportation sector of around 3,418 EDU's. These growth figures will be used to calculate SDC's for the transportation sector.

6.4 CIP Project Summary & Project Costs

The 1997 Transportation Plan included a long list of recommended projects to address specific transportation needs in the community. The projects included improvements to vehicular and pedestrian traffic modes.

All of the projects in the 1997 Plan were considered for inclusion within the Transportation CIP list. All project costs were adjusted based using the ENR Index.

Meetings were held with City staff to review each project to determine whether it should remain on the CIP list and whether or not the project had already been completed.

Furthermore, discussions were held with City staff to determine a reasonable percentage of SDC eligibility for each project. The percentage of eligibility was based upon the estimated proportional need of the project to address growth pressures on the transportation system.

Table 6.4.1 summarizes all of the projects on the City of Newport Transportation CIP list. Detailed information on each project, its need, and project cost details are available within the 1997 Transportation System Plan. No additional projects were added to the CIP that require any additional description within this methodology.

The Newport Transportation CIP includes projects with a current estimated project cost of over $48 million.

Table 6.4.1 – City of Newport Transportation CIP List

Project No.	Project Description	Project Cost	Project Cost Date	ENR Index of Estimate	Current ENR Index	Adjusted Cost Estimate (current)
1	North-South Arterial - Phase 1A (between US 20 and 3rd St)	$300,000.00	Jun-97	5825	8007.48	$412,402.40
2	North-South Arterial - Phase IIA (between Harney Dr. and 36th St)	$1,200,000.00	Jan-00	Completed	Completed	$1,200,000.00
3	Extend NW Nye Street to Ocean View Drive	$600,000.00	Mar-07	7880	8007.48	$609,706.60
4	Connect SE 1st Street (between Douglas and Fogarty)	$250,000.00	Mar-07	7880	8007.48	$254,044.42
5	Reconstruct NE 3rd Street (between NE Eads St. and NE Harney Rd)	$134,000.00	Jun-97	5825	8007.48	$184,206.41
6	Hwy. 101 Revisions (between Hwy. 20 and Yaquina Bay Bridge)	$17,400.00	Jun-97	Completed	Completed	$50,000.00
7	Hwy. 101 /NE Avery Street (access management modification)	$10,000.00	Jun-97	5825	8007.48	$13,746.75
8	Hwy. 101 /NE Avery Street (provide signing and channelization)	$6,700.00	Jun-97	5825	8007.48	$9,210.32
9	Naterlin at US 101- Yaquina Bay Bridge (provide realignment and channelization)	$24,100.00	Jun-97	5825	8007.48	$33,129.66
10	NW 56th Street Area Improvements	$302,000.00	Jun-97	5825	8007.48	$415,151.75
11	Hwy 101/Hurburt Street (signal improvements to provide for left turns)	$150,000.00	Jun-97	5825	8007.48	$206,201.20
12	Hwy 101/Hwy 20 (signal revisions/improvements, realign E Olive St)	$1,000,000.00	Jan-00	Completed	Completed	$1,000,000.00
13	Hwy 101/Abbey Street (install traffic signal)	$200,000.00	Jun-97	5825	8007.48	$274,934.94
14	Pedestrian improvements to serve schools	$160,600.00	Jun-97	5825	8007.48	$220,772.75
15	Bicycle Parking at Major Bus Stops and Bus Stations	$15,000.00	Jun-97	5825	8007.48	$20,620.12
16	Bicycle Racks for all Dial-a-Ride Vehicles	$7,500.00	Jun-97	5825	8007.48	$10,310.06
17	Complete East-West Bike Route Striping	$1,500.00	Jun-97	5825	8007.48	$2,062.01
18	Provide a North-South Bike Route - Signed route only	$500.00	Jun-97	5825	8007.48	$687.34
19	Provide Covered Bus Shelters at Major Bus Stops	$40,000.00	Jun-97	5825	8007.48	$54,986.99
20	Purchase Two Larger Vehicles for Dial-a-Ride Service	$130,000.00	Jun-97	5825	8007.48	$178,707.71
21	North-South Arterial - Phase 1B (between 7th Street and NE 32nd Street	$7,000,000.00	Mar-07	7880	8007.48	$7,113,243.65
22	NW Abalone Street (extension to 32nd Street)	$182,000.00	Jun-97	5825	8007.48	$250,190.79
23	Extend NW 36th (between US 101 and Ocean View Drive)	$500,000.00	Mar-07	7880	8007.48	$508,088.83
24	Widen Hwy 20 to Five Lanes (John Moore Dr. to Hwy 101)	$5,000,000.00	May-07	7880	8007.48	$5,080,888.32
25	John Moore Road at SE Bay Blvd (realignment and channelization)	$300,000.00	Mar-07	7880	8007.48	$304,853.30
26	NE 52nd Area Improvements	$750,000.00	Jan-00	Completed	Completed	$750,000.00
27	Surface Parking Lots for US 101 Businesses	$150,000.00	Jun-97	5825	8007.48	$206,201.20
28	NE 57th Street Area Improvements	$150,000.00	Jun-97	5825	8007.48	$206,201.20
29	Hwy 101/NE 36th Street Install Traffic Signal	$500,000.00	May-07	7880	8007.48	$508,088.83
30	Hwy 101/NE 52nd Street Install Traffic Signal	$450,000.00	Jan-00	Completed	Completed	$450,000.00
31	Sidewalk Imps along Elizabeth Street (SW 2nd St. to Govt St) west side only	$26,600.00	Jun-97	5825	8007.48	$36,566.35
32	Sidewalk Imps along NW 6th Street (Coast St. to Nye St) both sides	$25,600.00	Jun-97	5825	8007.48	$35,191.67
33	Sidewalk/Bikeway along Big Creek Road (12th to Harney + sidewalk on 12th	$112,500.00	Jun-97	5825	8007.48	$154,650.90
34	Purchase Two Large Vans to Lease to Valley Retriever	$175,000.00	Jun-97	5825	8007.48	$240,568.07
35	Extend NE Avery Street (between NE 71st and NE 73rd)	$185,000.00	Jun-97	5825	8007.48	$254,314.82
36	Extend SW Abbey St to Elizabeth Street	$84,000.00	Jun-97	5825	8007.48	$115,472.67
37	Extend NE 5th Street (7th Dr. to Newport Hts. Road)	$268,000.00	Jun-97	5825	8007.48	$368,412.81
38	Extend Biggs St. to NW 60th St. and Improve NW 60th St. to Highway 101	$150,000.00	Mar-07	7880	8007.48	$152,426.65
39	Reconstruct NW 60th/Biggs Ave/NW 55th (between Hazel Ct. and 60th)	$52,000.00	Jun-97	5825	8007.48	$71,483.08
40	Widen Hwy 101 to Five Lanes (Harney Street to North City Limits)	$7,165,000.00	Jun-97	5825	8007.48	$9,849,544.07
41	Widen Hwy 101 to Five Lanes (Yaquina Bay Bridge to SE 123rd St)	$10,690,000.00	Jun-97	5825	8007.48	$14,695,272.31
42	Close SW 2nd Street between Highway 101 and SW Angle Street	$25,000.00	Jan-00	Completed	Completed	$25,000.00
43	Highway 101/Angle Street (install traffic signal)	$400,000.00	May-07	7880	8007.48	$406,471.07
44	Highway 101/NE 73rd Street (install traffic signal)	$400,000.00	May-07	7880	8007.48	$406,471.07
45	New Parking Structure - Restripe Bay Blvd. for parallel parking south of Falls St.	$3,207,000.00	Jun-97	5825	8007.48	$4,408,581.69
46	Sidewalk Improvements in Key Pedestrian Areas around Newport	$387,100.00	Jun-97	5825	8007.48	$532,136.57
47	Provide Bicycle Lanes on Eads Street (NE 12th St. to NE 3rd St and on 3rd St.)	$78,300.00	Jun-97	5825	8007.48	$107,637.03
48	Construct a Centrally Located Multi-Modal Transit Facility	$500,000.00	Jun-97	5825	8007.48	$687,337.34
				Total		$53,076,175.72

6.5 SDC Eligibility Summary

As mentioned above, a committee composed of city staff with responsibilities for planning and maintenance of the transportation facilities was assembled to discuss and determine how much each CIP project is motivated to address growth needs. Each project was considered individually and assigned a percentage of SDC eligibility.

Table 6.5.1 below summarizes the SDC eligibility for each project on the Newport Transportation CIP list.

Of all the projects on the Newport Transportation CIP, over $32 million is considered to be SDC eligible.

Table 6.5.1 – SDC Eligibility Summary – Transportation CIP Projects

Project No.	Project Description	Adjusted Cost Estimate (current)	Reimbursement SDC Eligible (Y/N)	Improvement SDC Eligible (Y/N)	% SDC Eligible	SDC Eligible Cost
1	North-South Arterial - Phase 1A (between US 20 and 3rd St)	$412,402.40	N	Y	20%	$82,480.48
2	North-South Arterial - Phase IIA (between Harney Dr. and 36th St)	$1,200,000.00	Y	N	42%	$504,000.00
3	Extend NW Nye Street to Ocean View Drive	$609,706.60	N	Y	75%	$457,279.95
4	Connect SE 1st Street (between Douglas and Fogarty)	$254,044.42	N	Y	75%	$190,533.31
5	Reconstruct NE 3rd Street (between NE Eads St. and NE Harney Rd)	$184,206.41	N	Y	20%	$36,841.28
6	Hwy. 101 Revisions (between Hwy. 20 and Yaquina Bay Bridge)	$50,000.00	N	N	0%	$0.00
7	Hwy. 101 /NE Avery Street (access management modification)	$13,746.75	N	N	0%	$0.00
8	Hwy. 101 /NE Avery Street (provide signing and channelization)	$9,210.32	N	N	0%	$0.00
9	Naterlin at US 101- Yaquina Bay Bridge (provide realignment and channelization)	$33,129.66	N	N	0%	$0.00
10	NW 56th Street Area Improvements	$415,151.75	N	Y	50%	$207,575.88
11	Hwy 101/Hurburt Street (signal improvements to provide for left turns)	$206,201.20	N	Y	100%	$206,201.20
12	Hwy 101/Hwy 20 (signal revisions/improvements, realign E Olive St)	$1,000,000.00	Y	N	20%	$200,000.00
13	Hwy 101/Abbey Street (install traffic signal)	$274,934.94	N	Y	50%	$137,467.47
14	Pedestrian improvements to serve schools	$220,772.75	N	N	0%	$0.00
15	Bicycle Parking at Major Bus Stops and Bus Stations	$20,620.12	N	N	0%	$0.00
16	Bicycle Racks for all Dial-a-Ride Vehicles	$10,310.06	N	N	0%	$0.00
17	Complete East-West Bike Route Striping	$2,062.01	N	N	0%	$0.00
18	Provide a North-South Bike Route - Signed route only	$687.34	N	N	0%	$0.00
19	Provide Covered Bus Shelters at Major Bus Stops	$54,986.99	N	N	0%	$0.00
20	Purchase Two Larger Vehicles for Dial-a-Ride Service	$178,707.71	N	N	0%	$0.00
21	North-South Arterial - Phase 1B (between 7th Street and NE 32nd Street	$7,113,243.65	N	Y	75%	$5,334,932.74
22	NW Abalone Street (extension to 32nd Street)	$250,190.79	N	Y	75%	$187,643.09
23	Extend NW 36th (between US 101 and Ocean View Drive)	$508,088.83	N	Y	75%	$381,066.62
24	Widen Hwy 20 to Five Lanes (John Moore Dr. to Hwy 101)	$5,080,888.32	Y	N	50%	$2,540,444.16
25	John Moore Road at SE Bay Blvd (realignment and channelization)	$304,853.30	N	Y	10%	$30,485.33
26	NE 52nd Area Improvements	$750,000.00	N	N	0%	$0.00
27	Surface Parking Lots for US 101 Businesses	$206,201.20	N	N	0%	$0.00
28	NE 57th Street Area Improvements	$206,201.20	N	Y	50%	$103,100.60
29	Hwy 101/NE 36th Street Install Traffic Signal	$508,088.83	N	Y	50%	$254,044.42
30	Hwy 101/NE 52nd Street Install Traffic Signal	$450,000.00	N	N	0%	$0.00
31	Sidewalk Imps along Elizabeth Street (SW 2nd St. to Govt St) west side only	$36,566.35	N	Y	50%	$18,283.17
32	Sidewalk Imps along NW 6th Street (Coast St. to Nye St) both sides	$35,191.67	N	Y	50%	$17,595.84
33	Sidewalk/Bikeway along Big Creek Road (12th to Harney + sidewalk on 12th	$154,650.90	N	Y	50%	$77,325.45
34	Purchase Two Large Vans to Lease to Valley Retriever	$240,568.07	N	N	0%	$0.00
35	Extend NE Avery Street (between NE 71st and NE 73rd)	$254,314.82	N	Y	75%	$190,736.11
36	Extend SW Abbey St to Elizabeth Street	$115,472.67	N	Y	75%	$86,604.50
37	Extend NE 5th Street (7th Dr. to Newport Hts. Road)	$368,412.81	N	Y	75%	$276,309.61
38	Extend Biggs St. to NW 60th St. and Improve NW 60th St. to Highway 101	$152,426.65	N	Y	50%	$76,213.32
39	Reconstruct NW 60th/Biggs Ave/NW 55th (between Hazel Ct. and 60th)	$71,483.08	N	Y	50%	$35,741.54
40	Widen Hwy 101 to Five Lanes (Harney Street to North City Limits)	$9,849,544.07	N	Y	75%	$7,387,158.05
41	Widen Hwy 101 to Five Lanes (Yaquina Bay Bridge to SE 123rd St)	$14,695,272.31	N	Y	75%	$11,021,454.23
42	Close SW 2nd Street between Highway 101 and SW Angle Street	$25,000.00	N	N	0%	$0.00
43	Highway 101/Angle Street (install traffic signal)	$406,471.07	N	Y	50%	$203,235.53
44	Highway 101/NE 73rd Street (install traffic signal)	$406,471.07	N	Y	50%	$203,235.53
45	New Parking Structure - Restripe Bay Blvd. for parallel parking south of Falls St.	$4,408,581.69	N	N	0%	$0.00
46	Sidewalk Improvements in Key Pedestrian Areas around Newport	$532,136.57	N	Y	50%	$266,068.28
47	Provide Bicycle Lanes on Eads Street (NE 12th St. to NE 3rd St and on 3rd St.)	$107,637.03	N	Y	50%	$53,818.51
48	Construct a Centrally Located Multi-Modal Transit Facility	$687,337.34	N	N	0%	$0.00
				Total		$30,767,876.24

6.6 Calculation of Transportation Reimbursement SDC

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. This section will establish the methodology and the charge for transportation system reimbursement SDC's in Newport.

A summary of the reimbursement SDC calculation for the transportation CIP is provided below:

Table 6.6.1 – Transportation CIP – Reimbursement SDC Calculation Summary

Project No.	Project Description	SDC Eligible Cost
2	North-South Arterial - Phase IIA (between Harney Dr. and 36th St)	$504,000.00
12	Hwy 101/Hwy 20 (signal revisions/improvements, realign E Olive St)	$200,000.00
24	Widen Hwy 20 to Five Lanes (John Moore Dr. to Hwy 101)	$2,540,444.16
	Total Reimbursement Eligible Costs (A)	$3,244,444.16
	Total Growth Trips per Section 6.3 (B)	34,182
	Maximum Reimbusement Transportation SDC (A/B) per typical EDU	**$94.92**

Based on the above methodology, a reimbursement SDC for the Transportation system of around $95 would be appropriate.

6.7 Calculation of Transportation Improvement SDC

The calculation of the transportation improvement SDC is accomplished by considering the total value of the improvement SDC eligible projects above divided by the growth potential in the transportation system.

A summary of the transportation improvement SDC calculation is provided below in Table 6.7.1:

Table 6.7.1 – Summary of Transportation Improvement SDC Calculation

Project No.	Project Description	SDC Eligible Cost
1	North-South Arterial - Phase 1A (between US 20 and 3rd St)	82,480.48
3	Extend NW Nye Street to Ocean View Drive	457,279.95
4	Connect SE 1st Street (between Douglas and Fogarty)	190,533.31
5	Reconstruct NE 3rd Street (between NE Eads St. and NE Harney Rd)	36,841.28
10	NW 56th Street Area Improvements	207,575.88
11	Hwy 101/Hurburt Street (signal improvements to provide for left turns)	206,201.20
13	Hwy 101/Abbey Street (install traffic signal)	137,467.47
21	North-South Arterial - Phase 1B (between 7th Street and NE 32nd Street	5,334,932.74
22	NW Abalone Street (extension to 32nd Street)	187,643.09
23	Extend NW 36th (between US 101 and Ocean View Drive)	381,066.62
25	John Moore Road at SE Bay Blvd (realignment and channelization)	30,485.33
28	NE 57th Street Area Improvements	103,100.60
29	Hwy 101/NE 36th Street Install Traffic Signal	254,044.42
31	Sidewalk Imps along Elizabeth Street (SW 2nd St. to Govt St) west side only	18,283.17
32	Sidewalk Imps along NW 6th Street (Coast St. to Nye St) both sides	17,595.84
33	Sidewalk/Bikeway along Big Creek Road (12th to Harney + sidewalk on 12th	77,325.45
35	Extend NE Avery Street (between NE 71st and NE 73rd)	190,736.11
36	Extend SW Abbey St to Elizabeth Street	86,604.50
37	Extend NE 5th Street (7th Dr. to Newport Hts. Road)	276,309.61
38	Extend Biggs St. to NW 60th St. and Improve NW 60th St. to Highway 101	76,213.32
39	Reconstruct NW 60th/Biggs Ave/NW 55th (between Hazel Ct. and 60th)	35,741.54
40	Widen Hwy 101 to Five Lanes (Harney Street to North City Limits)	7,387,158.05
41	Widen Hwy 101 to Five Lanes (Yaquina Bay Bridge to SE 123rd St)	11,021,454.23
43	Highway 101/Angle Street (install traffic signal)	203,235.53
44	Highway 101/NE 73rd Street (install traffic signal)	203,235.53
45	New Parking Structure - Restripe Bay Blvd. for parallel parking south of Falls St.	0.00
46	Sidewalk Improvements in Key Pedestrian Areas around Newport	266,068.28
47	Provide Bicycle Lanes on Eads Street (NE 12th St. to NE 3rd St and on 3rd St.)	53,818.51
	Total Improvement Eligible Costs (A)	27,440,951.59
	Total Growth Trips per Section 6.3 (B)	34,182
	Maximum Improvement Transportation SDC (A/B) per typical EDU	**$802.79**

Based on the above methodology, a transportation improvement SDC of around $800 would be appropriate.

6.8 SDC Credits

An analysis of potential SDC credits should be included as part of any 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:

6.8.1 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, if a developer elects to construct a section of roadway to provide service to their development, and the improvement is included and all or part of a project listed on the City's CIP, a credit should be negotiated for the improvement provided by the developer.

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

6.8.2 Financing Credit - Project Costs and Potential Loan Amounts

As the City does not currently have a rate structure or user fee for the transportation system, it is not possible to develop a financing credit. However, it may be possible for the City to fund a major transportation project through a bond or property tax-related funding mechanism. Should this occur, the City should, as part of the funding for the project, develop an appropriate transportation SDC credit to offset the value of the increased property tax so that new development is not charged for higher property taxes in addition to SDC's.

A potential financing credit will not be developed at this time for the transportation system.

6.9 Transportation SDC Summary

The purpose of this section is to establish a methodology for a fair and reasonable transportation SDC for the City of Newport. Efforts have been made to define the current transportation CIP, the growth potential in the transportation system, and calculate both a reimbursement and an improvement SDC component for the transportation system.

Table 6.9.1 below summarizes the transportation SDC as developed within this methodology.

Table 6.9.1 – Transportation SDC Summary

SDC Component	SDC Amount
Improvement Fee	
Per Section 6.7	$802.79
Reimbursement Fee	
Per Section 6.6	$94.92
Subtotal of Transportation SDC Fees per typical EDU	$897.71
Credit Summary	na

6.10 Transportation SDC Assessment and Schedule

Assessment of a transportation SDC should be based on the use of a standard trip generation table. Like Table 3.10 which is used to establish the assessment method for several of the SDC modules in this methodology, Table 6.10 below should be utilized to establish the assessment of the transportation SDC among different land use development types. A brief summary of the recommended assessment methods is provided below:

6.10.1 Assessment of a Transportation SDC for Residential Development

As is the case with the other SDC modules, a typical single family detached home should be considered as a standard EDU resulting in the base trip count as defined below in Table 6.10. Trip counts for other land uses should be based on the counts shown in Table 6.10. The table includes a column to determine trip counts for each specified land use along with a column where the trip counts are normalized to a typical residential dwelling or EDU.

Table 6.10.1 – ITE Trip Counts and EDU Counts for the City of Newport Transportation System

ITE Code	Landuse	Trips per Day (ITE)	Trip Bypass Percentage	Newport Trips per Day	Equivalent Transportation EDU's	Unit
10	Waterport/Marine Terminal	12.50	0%	12.50	1.25	Acre
22	General Aviation Airport	6.90	0%	6.90	0.69	Based Aircraft
30	Truck Terminal	85.70	0%	85.70	8.57	Acre
110	General Light Industrial	7.30	0%	7.30	0.73	1,000 Sq. Ft. Gross Floor Area
120	General Heavy Industrial	1.60	0%	1.60	0.16	1,000 Sq. Ft. Gross Floor Area
130	Industrail Park	6.90	0%	6.90	0.69	1,000 Sq. Ft. Gross Floor Area
140	Manufacturing	4.00	0%	4.00	0.40	1,000 Sq. Ft. Gross Floor Area
150	Warehousing	5.10	0%	5.10	0.51	1,000 Sq. Ft. Gross Floor Area
151	Mini-Warehousing	2.70	0%	2.70	0.27	1,000 Sq. Ft. Gross Floor Area
170	Utilities	0.20	0%	0.20	0.02	1,000 Sq. Ft. Gross Floor Area
210	**Single-Family Detached Housing**	**10.00**	**0%**	**10.00**	**1.00**	**Dwelling Unit**
	Two-Family Housing	10.00	0%	10.00	1.00	Dwelling Unit
220	Apartments (3 Units or more)	6.80	0%	6.80	0.68	Dwelling Unit
230	Residential Condominium	6.10	0%	6.10	0.61	Dwelling Unit
240	Mobil Home Park	5.00	0%	5.00	0.50	Dwelling Unit Space
252	Congregate Care Facility	2.30	0%	2.30	0.23	Dwelling Unit
310	Hotel	9.10	40%	5.46	0.55	Hotel Room
320	Motel	10.70	40%	6.42	0.64	Hotel Room
411	City Park	2.30	0%	2.30	0.23	Acre
412	County Park	3.10	0%	3.10	0.31	Acre
413	State Park	0.50	0%	0.50	0.05	Acre
416	Recreational Vehicle Park	77.90	40%	46.74	4.67	Acre
420	Marina	3.10	0%	3.10	0.31	Berth
430	Golf Course	39.40	0%	39.40	3.94	Hole
433	Theater	1.80	0%	1.80	0.18	Seat
480	Amusement Park	79.30	0%	79.30	7.93	Acre
481	Zoo	120.30	0%	120.30	12.03	Acre
491	Tennis Courts	34.90	0%	34.90	3.49	Tennis Court
492	Racquet/Health Club	17.90	0%	17.90	1.79	1,000 Sq. Ft. Gross Floor Area
494	Bowling Alley	34.90	0%	34.90	3.49	Bowling Lane
495	Recreational Community Center	7.70	0%	7.70	0.77	1,000 Sq. Ft. Gross Floor Area
520	Elementray/Middle/Private School	2.90	0%	2.90	0.29	1,000 Sq. Ft. Gross Floor Area
530	High School	11.40	0%	11.40	1.14	1,000 Sq. Ft. Gross Floor Area
540	Junior College	13.50	0%	13.50	1.35	1,000 Sq. Ft. Gross Floor Area
560	Church/Synagogue	9.80	0%	9.80	0.98	1,000 Sq. Ft. Gross Floor Area
565	Day Care Center	83.00	50%	41.50	4.15	1,000 Sq. Ft. Gross Floor Area
566	Cemetery	4.40	0%	4.40	0.44	1,000 Sq. Ft. Gross Floor Area
571	Prison	6.80	0%	6.80	0.68	1,000 Sq. Ft. Gross Floor Area
590	Library	47.60	0%	47.60	4.76	1,000 Sq. Ft. Gross Floor Area
610	Hospital	17.60	20%	14.08	1.41	Bed

Table 6.10.1 Continued – ITE Trip Counts and EDU Counts for the City of Newport Transportation System

ITE Code	Landuse	Trips per Day (ITE)	Trip Bypass Percentage	Newport Trips per Day	Equivalent Transportation EDU's	Unit
620	Nursing Home	2.70	40%	1.62	0.16	1,000 Sq. Ft. Gross Floor Area
630	Clinic	24.90	40%	14.94	1.49	1,000 Sq. Ft. Gross Floor Area
710	General Office			0.00	0.00	
	≤ 10,000 Sq. Ft.	25.80	10%	23.22	2.32	1,000 Sq. Ft. Gross Floor Area
	≤ 25,000 Sq. Ft.	20.60	10%	18.54	1.85	1,000 Sq. Ft. Gross Floor Area
	≤ 50,000 Sq. Ft.	17.40	10%	15.66	1.57	1,000 Sq. Ft. Gross Floor Area
715	Single Tennant Office Building	12.00	0%	12.00	1.20	1,000 Sq. Ft. Gross Floor Area
720	Medical-Dental Office Building	35.80	20%	28.64	2.86	1,000 Sq. Ft. Gross Floor Area
730	Government Office Building	72.20	20%	57.76	5.78	1,000 Sq. Ft. Gross Floor Area
731	State Motor Vehicles Department	173.80	20%	139.04	13.90	1,000 Sq. Ft. Gross Floor Area
732	Post Office	91.20	20%	72.96	7.30	1,000 Sq. Ft. Gross Floor Area
810	Retail-General Merchandise	20.10	40%	12.06	1.21	1,000 Sq. Ft. Gross Floor Area
812	Building Materials & Lumber Store	32.00	20%	25.60	2.56	1,000 Sq. Ft. Gross Floor Area
814	Specialty Retail Center	42.60	20%	34.08	3.41	1,000 Sq. Ft. Gross Floor Area
815	Free Standing Discount Store	73.40	40%	44.04	4.40	1,000 Sq. Ft. Gross Floor Area
816	Hardware/Paint Store	53.70	20%	42.96	4.30	1,000 Sq. Ft. Gross Floor Area
817	Nursery (Garden Center)	37.80	20%	30.24	3.02	1,000 Sq. Ft. Gross Floor Area
818	Nursery-Wholesale	3.30	20%	2.64	0.26	Acre
820	Shopping Center			0.00	0.00	
	≤ 10,000 Sq. Ft.	175.50	40%	105.30	10.53	1,000 Sq. Ft. Gross Floor Area
	≤ 50,000 Sq. Ft.	96.00	40%	57.60	5.76	1,000 Sq. Ft. Gross Floor Area
	≤ 100,000 Sq. Ft.	74.00	40%	44.40	4.44	1,000 Sq. Ft. Gross Floor Area
	≤ 200,000 Sq. Ft.	57.10	40%	34.26	3.43	1,000 Sq. Ft. Gross Floor Area
832	Sit Down Restaurant	215.00	50%	107.50	10.75	1,000 Sq. Ft. Gross Floor Area
833	Fast Food Restaurant w/o Drive Thru	823.30	50%	411.65	41.17	1,000 Sq. Ft. Gross Floor Area
834	Fast Food Restaurant w/Drive Thru	661.90	75%	165.48	16.55	1,000 Sq. Ft. Gross Floor Area
835	Drinking Place	125.70	40%	75.42	7.54	1,000 Sq. Ft. Gross Floor Area
840	Automobile Car Center	9.70	10%	8.73	0.87	1,000 Sq. Ft. Gross Floor Area
841	New Car Sale	50.20	10%	45.18	4.52	1,000 Sq. Ft. Gross Floor Area
844	Service Station	83.80	80%	16.76	1.68	Gasoline Pump
845	Service Station w/ Convenience Center	94.20	80%	18.84	1.88	Gasoline Pump
847	Self Service Car Wash	113.10	50%	56.55	5.66	Wash Stall
848	Tire Store	20.90	20%	16.72	1.67	Service Bay
850	Supermarket	157.10	20%	125.68	12.57	1,000 Sq. Ft. Gross Floor Area
851	Convenivence Market	772.80	75%	193.20	19.32	1,000 Sq. Ft. Gross Floor Area
860	Wholesale Market	7.00	10%	6.30	0.63	1,000 Sq. Ft. Gross Floor Area
861	Discount Club	81.70	20%	65.36	6.54	1,000 Sq. Ft. Gross Floor Area
870	Apparel Store	26.20	10%	23.58	2.36	1,000 Sq. Ft. Gross Floor Area
890	Furniture Store	4.50	10%	4.05	0.41	1,000 Sq. Ft. Gross Floor Area
895	Video Arcade	94.20	0%	94.20	9.42	1,000 Sq. Ft. Gross Floor Area
911	Walk-in Bank	147.20	20%	117.76	11.78	(1)
912	Drive-in Bank	277.70	20%	222.16	22.22	(1)
	(1) For banks, the assessment method will be based on a per 1,000 square feet of teller area plus the balance of the bank area calculated as general office space					

Section 7

7.0 Parks SDC Methodology

7.1 Introduction

This section describes in detail the calculations, background information, and methodology used to develop and identify the maximum defendable SDC for the City of Newport Parks and Recreation Department. This section will describe the existing and future needs of the system, as well as projects and estimated costs to address deficiencies and satisfy future growth-related requirements.

7.2 Parks Department Overview

The City of Newport has a Parks Master Plan that includes basic planning for the City of Newport Parks and Recreation Department (JC Draggoo & Associates, now doing business as MIG). The Master Plan is included, by reference and summary, within the City's current Comprehensive Plan. As required, appropriate and necessary bridge planning and justification is provided within this section of this SDC Methodology.

7.2.1 Overall Parks System Description and Background

The City of Newport has historically placed the creation and maintenance of parks and recreation facilities high on their list of priorities. Due to the location of the City on the beautiful Oregon Coast and its relatively close proximity to Eugene, Salem, and other larger inland communities, Newport is a favorite for tourists and those who enjoy weekend or second homes at the beach.

To accommodate visitors and those who make Newport their permanent home, the City has regularly invested in the acquisition and development of park lands and infrastructure. This has generally included such facilities as:

1. Parks within a close distance or to provide access to public beaches
2. A public swimming pool
3. Several parks connected to walking trails
4. Baseball and softball parks
5. A city recreation center
6. Others

In addition to their many facilities, the City operates regular classes and recreational activities for old and young alike. The City maintains a full-time Parks and Recreation Director who oversees in excess of 50 full- and part-time employees who help operate and maintain the Parks and Recreation Department.

7.2.2 Service Population

The service population for the Parks and Recreation Department is difficult as the department provides services to full-time residents, part-time residents, tourists, and other visitors to the community for the recreational opportunities that are offered.

Specific data is not available on the numbers of people that utilize the parks facilities each year. This would include significant numbers of visitors to the City's outdoor parks, pool facilities, softball and baseball facilities, and others.

For the purposes of this methodology, it will be assumed that parks SDC's should be assessed against new properties that are established to provide a domicile or lodging for full- time or part-time residents who may make use of parks facilities. This will include residential development, hotels, condos, and other land uses that will include lodging facilities for residents and visitors alike.

7.2.3 Recent Potential Parks SDC Legislation

At the time this SDC Methodology was being prepared, the Oregon Legislature was considering a bill to limit the amount a community can assess for a parks SDC.

Senate Bill 45 (SB 45) seeks to combine both parks and school SDC's and set a cap on the total amount that can be charged for these SDC's. The State House of Representatives is considering a bill with similar language that would cap the total amount that can be charged for a parks and recreation SDC at $4,000.

The rationale for this potential legislation is that, unlike water, sewer, and other public infrastructure SDC's, the calculation of parks and school SDC's are more subjective in nature and, therefore, should be regulated. While it is not anticipated that this legislation will affect the recommendations in this methodology, this subsection is provided as information only.

7.3 EDU Methodology and Projected Growth

As discussed previously, this methodology assumes that the Parks SDC will only be assessed against new properties that are creating new domiciles or lodging facilities for full- or part-time residents who may utilize parks facilities. With this in mind, the following methodology was used to estimate the growth component to be used in the Parks SDC calculation in Newport:

7.3.1 Residential Growth Component

The City of Newport has a current residential population of around 10,000 persons. According to staff, the City currently provides water to a residential population through approximately 3,593 connections. With a residential growth rate of 1%, it is expected that the number of residential connections will expand to around 4,384 connections in 20 years. This accounts for growth of around 791 connections or an increase of 791 EDU's. This includes connections that would be associated with condos, rental houses, and others that are similar to typical residential dwellings.

7.3.2 Non-residential Lodging Growth Component

In addition to residential growth, the City recognizes that part time residents and tourists utilize and impact the demand on their parks facilities. Therefore, an effort must be made to estimate the growth in the non-residential lodging sector to calculate the total growth and the Parks SDC.

According to staff, there are approximately 2,293 lodging rooms in hotels, motels, B&B's, and other lodging establishments. If it is assumed that growth in this sector is at least as rapid as growth in the local population, the City should expect to add another 505 lodging rooms within the City. If we further

assume that, from a parks usage perspective, that two motel rooms are equivalent to a single residential dwelling, the City should expect around 252 new parks EDU's over the planning period.

7.3.3 Total new Parks EDU's

By summing the estimated residential and non-residential lodging growth sectors, it is estimated that there will be around 1,044 new parks EDU's over the planning period. Therefore, this methodology assumes that the burden of parks SDC's will be spread over the anticipated growth in the parks sector over the planning period or over 1,044 EDU's.

7.4 Project Summary and Project Costs (CIP)

The City's referenced Parks Master Plan included detailed planning and project costs for the expansion and development of the parks system in the community. Projects included plans to acquire new land for expanding the parks system as well as further development of land already owned by the City. In other projects, existing parks would be improved to provide a higher level of service as well as being capable of serving a greater number of people.

The following provides information on the projects that appear on the City's current Parks and Recreation CIP.

7.4.1 Parks and Recreation CIP Projects

Each of the projects below corresponds to the project on the City's Parks CIP.

Parks Project No. 1 – West Agate Beach Park Development

Located in the northern portion of the City, this existing park is only partially developed and capable of limited service to park users. Under this project, the existing park would be improved to provide a higher level of service and increase the ability of the park to accommodate additional users.

Improvements to the park include:

- Expanded paved parking area
- Grading and earthwork on the project
- Improvement and expansion of the trails
- Additional signage for the park
- General landscaping, upgrades, and improvements

The estimated budget to improve the West Agate Beach Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that the proposed project will primarily meet existing parks needs with only some undeveloped properties in the vicinity of the park to benefit from the upgrade in the future. Therefore, staff recommends that this park be considered as 25% SDC eligible.

Parks Project No. 2 – Sam Moore Park Upgrade

Located north of the Yaquina Bridge and near the beach, Sam Moore Park is an existing park that is partially developed. The existing park includes a skateboard facility, trails, a play area, and general open space.

The planned project would seek to increase access to the park by adding the following upgrades:

- Additional paved parking areas
- Improved signage
- Restroom facilities
- General landscaping, upgrades and improvements

The estimated budget to improve Sam Moore Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommend that the proposed project will primarily meet existing parks needs with only some undeveloped properties in the vicinity of the park to benefit from the upgrade in the future. Therefore, staff recommends that this park be considered as 25% SDC eligible.

Parks Project No. 3 – Yaquina Bay Park Development

The Yaquina Bay Park is located north of the bridge and near the waterfront, to the west of Highway 101. This public park is owned by the State of Oregon though the City of Newport has historically provided playground equipment and some maintenance for the park. Recently, aged playground equipment was removed from the park.

This project would seek to install new playground and park equipment to replace the old equipment that was removed. This project would be undertaken in partnership with the State of Oregon.

The estimated budget to improve the Yaquina Bay Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project is required entirely to fulfill existing needs. Therefore, this project should not be considered for SDC eligibility.

Parks Project No. 4 – Big Creek Reservoir Trail Development

This project would include efforts to obtain property and improve a trail system that follows the Big Creek drainage area both east and west of Highway 101 along Big Creek, in the northern portion of the community.

Planned improvements for this project include:

- Construction of approximately 3 additional miles of nature and forest trails
- Wetland improvements and protection
- Construction of stairs and bridges on trail routes
- Improved signage for trail system

- Provide parking at various access points to the trail system

The estimated budget to improve the Big Creek Reservoir Trail System is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will serve a shared need of existing and future parks users. Therefore, this project should be considered as 50% SDC eligible.

Parks Project No. 5 – Sports Complex Design Services

The City of Newport obtained property and has completed some preliminary planning in support of the development of the City of Newport Sports Complex.

The Sports Complex would include facilities for soccer and other field sports. Adequate spectation, restrooms, concession, parking, and other facilities are anticipated to be included.

This project would be intended to obtain the necessary professional design services to complete the final planning and design for the project.

The estimated budget to obtain design services for the planned Sports Complex is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will serve a shared need of existing and future parks users. Therefore, this project should be considered as 50% SDC eligible.

Parks Project No. 6 – Frank Wade Park Upgrade

Frank Wade Park is located near Highway 101, north of the Yaquina Bay Bridge. The existing park includes baseball and softball facilities and serves as the home field for the local high school ball teams. The park has inadequate bleachers or spectation facilities available for the amount of use it receives.

As the community grows, the pressures placed on the park will increase. This project is intended to provide the following improvements to the park:

- New covered bleachers
- Parking and other spectation upgrades

The estimated budget to improve Frank Wade Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project is intended to primarily satisfy existing parks needs with only minor application for growth. Therefore, this project should be considered as only 10% SDC eligible.

Parks Project No. 7 - Big Creek Park Upgrade and Expansion

Big Creek Park is located north of the Yaquina Bay Bridge and east of Highway 101, in the Big Creek drainage area. The existing park includes picnic and playground facilities along with limited paved parking and other open space.

Expected growth in the northern part of the community will increase the use pressures on the park. The planned park upgrade and expansion includes:

- Expanded paved parking areas
- Improved signage and lighting
- Grading and landscaping
- Construction of restrooms and public facilities
- New picnic and party shelters
- New playground and recreation equipment
- Improvement of trail access

The estimated budget to improve the Big Creek Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will serve a shared need of existing and future parks users. Therefore, this project should be considered as 50% SDC eligible.

Parks Project No. 8 – Coho Street Park Acquisition

The location for this project is in the southern portion of the community, south of the Yaquina Bay Bridge and west of Highway 101. Due to significant growth in the South Beach area and significant growth expectations in this area, additional park space is needed. This project would include funds to purchase and complete preliminary master planning for a park in the Coho Street area.

The estimated budget to obtain property for the Coho Street Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will serve a shared need of existing and future parks users. Therefore, this project should be considered as 50% SDC eligible.

Parks Project No. 9 – Hatfield Park Upgrade

Located in the hills north of the Yaquina Bay Bridge, Hatfield Park is a relatively small park with few improvements.

The planned project would include provisions for:

- Acquiring additional property to expand the park
- Construct restrooms
- Provide additional paved parking areas
- Add baseball facilities improvements
- Construct picnic shelters
- Landscaping and other parks improvements

The estimated budget to improve Hatfield Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will primarily satisfy existing needs. Therefore, it is recommended that this project be considered as 25% SDC eligible.

Parks Project No. 10 – Ocean-to-Bay Trail Acquisition

The intent of this project is to obtain rights-of-way and properties to establish a new trail network. The new trail would start at the Agate Beach Wayside and will terminate at the Yaquina Bay with mid-way access points at Big Creek Park, the Middle School and the Municipal Pool.

Funds for this project will be used to obtain the property and complete preliminary planning for the development of the trail system. The estimated budget to acquire properties for the Ocean to Bay Trail system is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will serve a shared need of existing and future parks users. Therefore, this project should be considered as 50% SDC eligible.

Parks Project No. 11 – Mombetsu Park Expansion

The Mombetsu Park includes the small city park developed in recognition of the City of Newport's Sister City in Japan. The park is located just north of the Yaquina Bay Bridge and just east of Highway 101. The small park has very little developed improvements and has limited use to the public.

The planned project would include adding additional paved parking, landscaping, and improved signage. The groomed and open space area would be expanded so as to allow for more varied use.

The estimated budget to expand Mombetsu Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will primarily satisfy existing needs with only minor application to future growth. Therefore, it is recommended that this project be considered as only 10% SDC eligible.

Parks Project No. 12 – Coho Street Park Development

This project includes provisions to improve the park property acquired under Project No. 8. Being located in the South Beach area, this park is expected to be used by the growing population in this area.

Planned improvements to the park include:

- Grading and clearing of the property
- Construction of shelters, gazebos, picnic structures, and other facilities
- Construction of restrooms and public facilities
- Construction of roads, trails, and parking areas
- Installation of playground equipment, recreational facilities, and other common park amenities
- Installation of signage and interpretive improvements

The estimated budget to develop the new Coho Street Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project is needed primarily to provide parks facilities for growth potential in the area of the park. Therefore, it is recommended that this project be considered as 75% SDC eligible.

Parks Project No. 13 – Ocean-to-Bay Trail Development

This project will seek to develop the property acquired under Project No. 10 and establish a trail system between Agate Beach and Yaquina Bay.

Improvements planned for this project include:

- Construct Phase 3 of the trail system which would include approximately 5 miles of woodland and forest trails
- Construct bridges, footpaths, wetland protection, stairs, and other facilities as needed
- Install signage and interpretive information on trail system
- Provide paved parking at trailheads and at intermediate access points
- Other necessary improvements for the trail system

The estimated budget to develop the Ocean-to-Bay Trail system is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will serve a shared need of existing and future parks users. Therefore, this project should be considered as 50% SDC eligible.

Parks Project No. 14 – South Beach Trail Acquisition

This project is intended to provide funds to acquire property for a new trail system in the South Beach area. Preliminary plans for the trail include provisions to connect the Bay Trail to the new community college campus and Mike Miller Park.

The estimated budget to acquire properties for the South Beach Trail system is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will primarily satisfy the needs of growth in the vicinity of the park. Therefore, it is recommended that this project be considered as 75% SDC eligible.

Parks Project No. 15 – Southeast 40th Street Area Park Acquisition

This project is intended to provide funds to acquire property for the development of a new park in south Newport. Preliminary plans indicate the park to be located south of the Yaquina Bay Bridge and east of Highway 101.

The estimated budget to acquire properties for the Southeast 40th Street Area Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will serve a shared need of existing and future parks users. Therefore, this project should be considered as 50% SDC eligible.

Parks Project No. 16 – South Beach Trail Development

This project includes provisions to develop the trail system acquired under Project No. 14.

Improvements planned for this project include:

- Construction of the trail system, grading, and clearing of pathways
- Installation of culverts and bridges as needed
- Construction of boardwalks over wetland areas and wetland protection measures
- Construction of a paved parking area at each trailhead and at intermediate access points as appropriate
- Installation of signage and interpretive information

The estimated budget for the development of the South Beach Trail system is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will serve a shared need of existing and future parks users. Therefore, this project should be considered as 50% SDC eligible.

Parks Project No. 17 – Southeast 40th Street Area Park Development

This project includes provisions to improve and develop the park property that will be acquired under Project No. 15.

Improvements planned for this project include:

- Grading and clearing of the property
- Construction of shelters, gazebos, picnic structures, and other facilities
- Construction of restrooms and public facilities
- Construction of roads, trails, and parking areas
- Installation of playground equipment, recreational facilities, and other common park amenities
- Installation of signage and interpretive improvements

The estimated budget to develop the new Southeast 40th Street Area Park is shown below in the Parks CIP Summary in Table 7.4.1.

Parks staff recommends that this project will primarily satisfy the needs of future parks users in the vicinity of the park. Therefore, this project should be considered as being 75% SDC eligible.

Parks Project No. 18 – Newport Aquatic Facility

For some time, the City has been working toward and planning for the development of a new aquatic facility to replace their aging public pool. The planned aquatic facility would include pool and diving facilities, spectation adequate to host large swim meets, wading pools, exercise facilities, water slides, and other facilities common to modern aquatic facilities.

The City has been working with a preliminary budget figure of around $8-million for the project. This figure was utilized for the current CIP and for this methodology.

According to staff, this project is primarily required to satisfy existing needs of the City. However, it would be sized for some growth. Therefore, it is recommended that this project be considered as 25% SDC eligible.

Parks Project No. 19 – Performing Arts Center Park

The City recently completed the development and construction of the new Performing Arts Center. The City owns additional property adjacent to the Center that they wish to use for a public park. Preliminary plans assume that the park can share parking and restroom facilities with the adjacent Performing Arts Center.

Planned improvements include playground facilities, picnic areas, gazebos, landscaping, signage, and other typical parks improvements.

According to staff, the project will satisfy an equal share of existing and projected needs and users. Therefore, the project should be considered as being 50% SDC eligible.

Parks Project No. 20 – Sports Complex Construction

This project would be the culmination of the sports complex planning completed under Project No. 5. The sports complex would be a multi-use park capable of supporting many different types of activities simultaneously.

Preliminary plans include:

- Construction of soccer and multi-use fields
- Construction of restrooms, playground facilities, and concession stands
- Installation of signage and underground utilities
- Parking improvements

According to parks staff, the project will benefit existing parks users and future parks users equally. Therefore, it is recommended that the project be considered as 50% SDC eligible.

Table 7.4.1 – Parks CIP Project Summary List

Project No.	Project Description	Project Cost	Project Cost Date	ENR Index of Estimate	Current ENR Index	Adjusted Cost Estimate (current)
1	West Agate Beach Park Development	$287,200.00	Jan-94	5408	8007.48	$425,249.31
2	Sam Moore Park Upgrade	$189,800.00	Jan-94	5408	8007.48	$281,031.75
3	Yaquina Bay Park Development	$100,000.00	Jan-94	5408	8007.48	$148,067.31
4	Big Creek Reservoir Trail Development	$250,000.00	Mar-07	7880	8007.48	$254,044.42
5	Sport Complex Design	$20,000.00	Mar-07	7880	8007.48	$20,323.55
6	Frank Wade Park Upgrade	$177,100.00	Jan-94	5408	8007.48	$262,227.20
7	Big Creek Park Upgrade/Expansion	$302,400.00	Jan-94	5408	8007.48	$447,755.54
8	Coho Street Park Acquisition	$500,000.00	Mar-07	7880	8007.48	$508,088.83
9	Hatfield Park Upgrade	$400,000.00	Mar-07	7880	8007.48	$406,471.07
10	Ocean-to-Bay Trail Acquisition	$100,000.00	Mar-07	7880	8007.48	$101,617.77
11	Mombetsu Park Upgrade	$80,000.00	Mar-07	7880	8007.48	$81,294.21
12	Coho Street Park Development	$189,800.00	Jan-94	5408	8007.48	$281,031.75
13	Ocean-to-Bay Trail Development	$250,000.00	Mar-07	7880	8007.48	$254,044.42
14	South Beach Trail Acquisition	$250,000.00	Mar-07	7880	8007.48	$254,044.42
15	Souteast 40th Street Area Park Acquisition	$500,000.00	Mar-07	7880	8007.48	$508,088.83
16	South Beach Trail Development	$350,000.00	Mar-07	7880	8007.48	$355,662.18
17	Southeast 40th Street Area Park Development	$350,000.00	Mar-07	7880	8007.48	$350,000.00
18	Newport Aquatic Facility	$8,000,000.00	Mar-07	7880	8007.48	$8,129,421.32
19	Performing Arts Center Park	$350,000.00	Mar-07	7880	8007.48	$355,662.18
20	Sports Complex Construction	$1,000,000.00	Mar-07	7880	8007.48	$1,016,177.66
				Total		**$14,440,303.72**

7.5 SDC Eligibility Summary

The SDC methodology must include a discussion of the percentage of each project's cost that can be attributed as necessary for 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.

Section 7.4 above includes a brief description of each project along with a discussion of each project's SDC eligibility. A summary of the SDC eligibilities for each project is provided below in table 7.5.1.

Table 7.5.1 – Stormwater Project SDC Eligibility Summary

Project No.	Project Description	Adjusted Cost Estimate (current)	Reimbursement SDC Eligible (Y/N)	Improvement SDC Eligible (Y/N)	% SDC Eligible	SDC Eligible Cost
1	West Agate Beach Park Development	$425,249.31	N	Y	25%	$106,312.33
2	Sam Moore Park Upgrade	$281,031.75	N	Y	25%	$70,257.94
3	Yaquina Bay Park Development	$148,067.31	N	N	0%	$0.00
4	Big Creek Reservoir Trail Development	$254,044.42	N	Y	50%	$127,022.21
5	Sport Complex Design	$20,323.55	N	Y	50%	$10,161.78
6	Frank Wade Park Upgrade	$262,227.20	N	Y	10%	$26,222.72
7	Big Creek Park Upgrade/Expansion	$447,755.54	N	Y	50%	$223,877.77
8	Coho Street Park Acquisition	$508,088.83	N	Y	50%	$254,044.42
9	Hatfield Park Upgrade	$406,471.07	N	Y	25%	$101,617.77
10	Ocean-to-Bay Trail Acquisition	$101,617.77	N	Y	50%	$50,808.88
11	Mombetsu Park Upgrade	$81,294.21	N	Y	10%	$8,129.42
12	Coho Street Park Development	$281,031.75	N	Y	75%	$210,773.81
13	Ocean-to-Bay Trail Development	$254,044.42	N	Y	50%	$127,022.21
14	South Beach Trail Acquisition	$254,044.42	N	Y	75%	$190,533.31
15	Souteast 40th Street Area Park Acquisition	$508,088.83	N	Y	50%	$254,044.42
16	South Beach Trail Development	$355,662.18	N	Y	50%	$177,831.09
17	Southeast 40th Street Area Park Development	$350,000.00	N	Y	75%	$262,500.00
18	Newport Aquatic Facility	$8,129,421.32	N	Y	25%	$2,032,355.33
19	Performing Arts Center Park	$355,662.18	N	Y	50%	$177,831.09
20	Sports Complex Construction	$1,016,177.66	N	Y	50%	$508,088.83
				Total		**$4,919,435.32**

7.6 Calculation of Parks Reimbursement SDC

No parks projects were identified in the CIP as being SDC eligible. Therefore, there is not parks reimbursement SDC at this time.

7.7 Calculation of Parks Improvement SDC

Calculation of the parks improvement SDC will be based upon the methodology and the establishment of the SDC eligible project costs as outlined earlier in this section. The following table provides a summary of the total cost of SDC eligible projects on the Parks CIP that have not yet been constructed. In order to account for construction cost increases since the time of the Master Plan, we have used prorated costs based on the current ENR Index.

Based on this analysis, a Parks Improvement SDC in excess of around $4,700 would be defendable.

Table 7.7.1 – Improvement SDC Calculation Summary

Project No.	Project Description	SDC Eligible Cost
1	West Agate Beach Park Development	$106,312.33
2	Sam Moore Park Upgrade	$70,257.94
3	Yaquina Bay Park Development	$0.00
4	Big Creek Reservoir Trail Development	$127,022.21
5	Sport Complex Design	$10,161.78
6	Frank Wade Park Upgrade	$26,222.72
7	Big Creek Park Upgrade/Expansion	$223,877.77
8	Coho Street Park Acquisition	$254,044.42
9	Hatfield Park Upgrade	$101,617.77
10	Ocean-to-Bay Trail Acquisition	$50,808.88
11	Mombetsu Park Upgrade	$8,129.42
12	Coho Street Park Development	$210,773.81
13	Ocean-to-Bay Trail Development	$127,022.21
14	South Beach Trail Acquisition	$190,533.31
15	Souteast 40th Street Area Park Acquisition	$254,044.42
16	South Beach Trail Development	$177,831.09
17	Southeast 40th Street Area Park Development	$262,500.00
18	Newport Aquatic Facility	$2,032,355.33
19	Performing Arts Center Park	$177,831.09
20	Sports Complex Construction	$508,088.83
	Total Improvement Eligible Costs (A)	$4,919,435.32
	Total Growth EDU's per Section 7.3 (B)	1,044
	Maximum Improvement Parks SDC (A/B)	**$4,713.95**

7.8 Parks SDC Credits

An analysis of potential SDC credits should be included as part of any 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:

7.8.1 Improvement Offset Credit

An improvement offset credit for the Parks SDC program is difficult as a specific development may have no relationship with or proximity to a park improvement that appears on the Parks CIP. However, this does not eliminate the potential for a developer to offset a parks SDC with an equivalent improvement or partial improvement of a Parks CIP project.

For example, the City may wish to provide a Parks CIP credit to a developer who chooses to install a public restroom facility on one of the planned parks projects. If it is determined that the value of the

restroom improvement is $65,000, a credit could be provided to the development for up to that amount but not more than the development would be required to pay for a Parks SDC.

As with the other SDC programs, a parks improvement offset credit must be considered on a case-by-case basis.

7.8.2 Financing Credit - Project Costs and Potential Loan Amounts

As the City does not currently have a rate structure or user fee for the parks system, it is not possible to develop a financing credit. As it is unlikely that a user fee will be established to support parks activities in Newport, no recommendations are provided at this time to provide a credit to offset a potential parks user fee.

However, it is possible that property taxes could be increased through bonds, levies, or other property tax related funding mechanisms. As is the case with user rates, a property cannot be charged an SDC and an increased property tax for the same SDC eligible project. Therefore, if parks CIP projects are funded through an increase in the property taxes in Newport, an appropriate financing credit should be established to eliminate the potential for "double-dipping" to pay for growth required parks projects.

7.9 Parks SDC Summary & Reduction Calculation

Section 7 has been developed to provide the City of Newport with the methodology needed to establish the maximum defendable SDC for the parks system. The following table provides a summary of the information utilized to complete this analysis:

Table 7.9.1 – Parks System SDC Summary
(not including compliance costs)

SDC Component	SDC Amount
Improvement Fee	
$/EDU	$4,713.95
Reimbursement Fee	$0
Credit Summary	NA

The maximum defendable SDC for the parks system is around $4,700 per EDU without the application of an SDC credit or compliance costs. 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 adjust this charge in any way they feel is appropriate. 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.

During the development of this methodology, the SDC Task Force felt that the defendable parks SDC was higher than they wished to adopt. Therefore, the Task Force has recommended that a reduction be applied to the parks SDC to reduce the impact to new properties.

Table 7.9.2 below illustrates the reduction of the parks SDC and shows the recommended parks SDC based on this reduction.

Table 7.9.2 – Reduced Parks System SDC Summary (not including compliance costs)

Description	SDC Amount
Parks SDC	**$4,713.95**
Parks SDC Reduction Percentage	50%
Adjusted Parks SDC / EDU	**$2,356.98**

7.10 Parks SDC Assessment Schedule

As with other SDC programs, the parks program should include an assessment schedule that considers both residential and non-residential development. The assessment schedule should be easy to administer and equitable to the development parties.

The following assessment methods are provided for the City's consideration.

7.10.1 Residential Parks SDC Assessment

It is recommended that the parks SDC be assessed against residential development on a simple per EDU method. While some communities will adjust the residential parks SDC assessment based on the number of bedrooms in a home or on the size of a home, it is recommended that to simplify the assessment that one residential development be considered equal to one EDU.

Multi-family housing such as duplexes and apartments should be considered similarly to the assessment method discussed in Section 3 of this methodology. Specifically:

- Apartments should be assesses at a rate of 0.75 EDU per unit
- Duplexes should be assessed at a rate of 1 EDU per separate dwelling or 2 EDU's per duplex.

7.10.2 Nonresidential Parks SDC Assessment

Non residential SDC's should be assessed assuming that each lodging room is equal to half of one EDU. Therefore, a new motel with 100 new rooms should be assessed as 50 EDU's when calculating a parks SDC.

Under this methodology, there is not assessment for commercial or industrial land uses not associated with lodging.

8.0 Compliance Costs

Section 8

8.1 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.

8.2 Compliance Costs

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

8.2.1 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. The City 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 $5,000 per year.

8.2.2 SDC Methodology

It will be assumed that the City will have to perform regular updates of their SDC methodology to account for increases in project costs (inflation), additions to the capital improvement plan (CIP), adjustments for project financing specifics as projects develop (i.e. interest rates, grants, etc.), population or growth rate changes, and other issues that may change the SDC charge for one or more of the individual SDC programs. These updates may be required, to a greater or lesser extent, on an annual basis.

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.

8.2.3 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 community 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 and wastewater 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 percent of the costs associated with planning should be considered SDC eligible. However, much of the efforts that go into infrastructure 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 8.2.5.

8.2.4 Total Estimated SDC Revenue

As it is 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 each SDC program. This may require adjustment once the final SDC for each infrastructure element 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 determine that a water SDC program will add 2,000 new EDU's over 20 years, it should be assumed that the system will add an average of 100 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 100 new EDU's added to the system in any given year.

This same analysis should be repeated for each of the separate SDC programs. A summary of this analysis is provided below in Table 8.2.5.

8.2.5 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 Newport. These expenses include annual costs for accounting and administration as well as longer term costs for planning efforts.

Table 8.2.5 – Calculation of SDC Compliance Expenses
City of Newport SDC Program

Compliance Activity	Estimated Cost	SDC Eligibility (%)	Frequency (years)	Annual $
General Accounting/Administration Costs				
Auditing/Accounting	$5,000	100%	1	$5,000
SDC Methodology Administration & Annual Adjustments	$10,000	100%	1	$10,000
SDC Methodology Update	$65,000	100%	10	$6,500
Wastewater SDC Compliance Costs				
Wastewater Facilities Planning/Master Planning	$250,000	50%	10	$12,500
Water System Compliance Costs				
Water Master Planning	$100,000	50%	10	$5,000
Water Conservation and Management Planning	$50,000	50%	20	$1,250
Storm Drain Compliance Costs				
Storm Drain Master Planning	$150,000	50%	20	$3,750
Parks Compliance Costs				
Parks Master Planning	$75,000	50%	10	$3,750
Transportation Compliance Costs				
Transportation Master Planning (TSP)	$180,000	50%	10	$9,000
Subtotal of Annual Costs	**$885,000**			**$56,750**

Based on this analysis, it is estimated to require in excess of $56,000 per year to properly administer the entire SDC program in Newport. This includes costs for planning as well as general administration.

8.2.6 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 8.2.6 below summarizes the estimated revenue expected within each sector.

Table 8.2.6 – Calculation of Anticipated SDC Revenue by Sector
City of Newport SDC Program

Estimates of SDC Revenues	Added EDU's EDU's/yr	SDC Charge per EDU	Annual Revenue
Estimated Annual Wastewater SDC Revenues	142.43	$3,207.91	$456,887.38
Estimated Annual Water SDC Revenues	142.43	$3,694.08	$526,130.22
Estimated Annual Storm Drainage SDC Revenues	142.43	$692.10	$98,572.18
Estimated Annual Parks SDC Revenues	52.18	$2,356.98	$122,985.88
Estimated Annual Transportation SDC Revenues	170.91	$897.71	$153,426.98
Total Estimated SDC Revenue			**$1,358,002.65**
Compliance Cost Charge (Annual cost/Annual Revenue)			**4.18%**

By dividing the calculated compliance costs in Table 8.2.5 by the total estimated annual revenue in Table 8.2.6, we can calculate an appropriate SDC surcharge that is required to administer the SDC program in Newport.

Based on this analysis, it is recommended that compliance costs of approximately 4% 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