City of Bandon
Coos County, Oregon

SYSTEM DEVELOPMENT CHARGES

MAY 2004

The Dyer Partnership
Engineers & Planners, Inc.

1330 Teakwood Avenue
Coos Bay, Oregon 97420
(541) 269-0732 ◘ Fax (541) 269-2044
www.dyerpart.com

Project No. 101.40

Table of Contents

SECTION 1 – INTRODUCTION

1.1 Planning Needs & Objectives 1-1
1.2 Oregon Systems Development Charges Act 1-2
1.3 Scope of Study 1-3
1.3.1 Reimbursement Fee Method 1-4
1.3.2 Improvement Fee 1-4
1.4 Previous Studies and Information 1-5
1.5 Authorization 1-6
1.6 Acknowledgments 1-6

SECTION 2 – WATER SUPPLY, TREATMENT & DISTRIBUTION

2.1 General 2-1
2.2 Projected EDUs and Services 2-1
2.3 Reimbursement Fee Methodology Development 2-2
2.3.1 Inventory and Depreciated Value 2-2
2.3.2 Grant Funding Portion 2-4
2.3.3 Capacity Remaining 2-4
2.3.4 Equity Portion 2-5
2.3.5 Calculation of Water SDC Reimbursement Fee 2-5
2.4 Improvement Fee Methodology Development 2-6
2.4.1 Capital Improvement Plan 2-6
2.4.2 System Development Charge Eligible Portion 2-6
2.5 Recommended Charges 2-8
2.5.1 Calculation of Total Water System Development Charge 2-8
2.5.2 Assessment Table 2-9

SECTION 3 – WASTEWATER COLLECTION & TREATMENT

3.1 General 3-1
3.2 Projected EDUs and Services 3-1
3.3 Reimbursement Fee Methodology Development 3-2
3.3.1 Inventory and Depreciated Value 3-2
3.3.2 Grant Funding Portion 3-4
3.3.3 Capacity Remaining 3-6
3.3.4 Equity Portion 3-7
3.3.5 Calculation of Wastewater SDC Reimbursement Fee 3-9
3.4 Improvement Fee Methodology Department 3-9
3.4.1 Capital Improvement Plan 3-9
3.5 Recommended Charges 3-11
3.5.1 Calculation of Total Wastewater System Development Charge 3-11
3.5.2 Assessment Table 3-11

SECTION 4 – DRAINAGE & FLOOD CONTROL

4.1 General 4-1
4.2 Projected Drainage Areas and EDUs 4-1
4.3 Improvement Fee Methodology Development 4-2
4.3.1 Inventory and Depreciated Value 4-2
4.3.2 Grant Funding Portion 4-4
4.3.3 Capacity Remaining 4-5
4.3.4 Equity Portion 4-5
4.3.5 Calculation of Storm Drainage SDC Reimbursement Fee 4-5
4.4 Improvement Fee Methodology Development 4-6
4.4.1 Capital Improvement Plan 4-6
4.5 Recommended Charges 4-7
4.5.1 Calculation of Total Storm Drain System Development Charge 4-7
4.5.2 Assessment Table 4-7

SECTION 5 – TRANSPORTATION

5.1 General 5-1
5.2 Projected Trip Counts and EDU Determination 5-1
5.3 Reimbursement Fee Methodology Development 5-6
5.3.1 Inventory and Depreciated Value 5-6
5.3.2 Grant Funding Portion 5-6
5.3.3 Capacity Remaining 5-7
5.3.4 Equity Portion 5-7
5.3.5 Calculation of Transportation SDC Reimbursement Fee 5-7
5.4 Improvement Fee Methodology Development 5-8
5.4.1 Capital Improvement Plan 5-8
5.5 Recommended Charges 5-10
5.5.1 Calculation of Total Storm Drain System Development Charge 5-10
5.5.2 Assessment Method 5-10

SECTION 6 – SUMMARY

6.1 General 6-1
6.2 Summary of Recommended SDCs 6-1
6.3 Assessment Criteria 6-4
6.3.1 Commercial / Government 6-5
6.3.2 Health Care Facilities 6-5
6.3.3 Recreational Faculties 6-6
6.3.4 Residential 6-6
6.4 Conclusion 6-6

LIST OF TABLES

2.2.1 – Water EDU and Service Connection Projections 2-1
2.3.1.1-Water SDC Eligible Assets 2-3
2.3.4.1-Equity Percentage Calculations for Water Infrastructure 2-5
2.3.5.1-Water SDC Reimbursement Portion Determination 2-6
2.4.2.1-Water Capital Improvement Projects with SDC Eligible Costs 2-7
2.4.2.1-Water Capital Improvement Projects with SDC Eligible Costs (Cont.) 2-8
2.5.1.1-Maximum Water System Development Charges 2-9
2.5.2.1-Water EDU Sector Summary 2-9
2.5.2.2-Recommended Water SDC Charges 2-10
3.2.1 - Wastewater EDU Projections 3-2
3.3.1.1-Wastewater SDC Eligible Assets 3-3
3.3.1.1-Wastewater SDC Eligible Assets (Cont.) 3-4
3.3.2.1-Wastewater Non-Grant Eligible Assets 3-5
3.3.2.1- Wastewater Non-Grant Eligible Assets (Cont) 3-6
3.3.4.1-Equity Percentage Calculations for Wastewater Infrastructure 3-8
3.3.5.1-Wastewater SDC Reimbursement Portion Determination 3-9
3.4.1.1-Bandon Prioritized Projects with Wastewater SDC Eligible Costs 3-10
3.5.1.1-Maximum Wastewater System Development Charges 3-11
3.5.2.1-Wastewater EDU Assessments for New Services 3-12
4.2.1 - Storm Drainage EDU Projections 4-2
4.2.2 – Estimate of Residential and Non Residential Acreage 4-2
4.3.1.1-Storm Drainage SDC Eligible Assets 4-3
4.3.1.1-Storm Drainage SDC Eligible Assets (Cont.) 4-4
4.3.5.1-Sewer SDC Reimbursement Portion Determination 4-5
4.4.1.1-Bandon Capital Improvement Projects with Storm Drain SDC Eligible Costs 4-6
4.5.1.1-Maximum Sewer System Development Charges 4-7
4.5.2.1-Storm Drainage EDU Assessment Criteria for New Development 4-8
5.2.1 – Estimated Current Residential, Commercial and Institutional Trip Counts 5-3
5.2.1 - Estimated Current Residential, Commercial and Institutional Trip Counts (Cont.) 5-4
5.2.2 – Projected Residential, Commercial and Institutional Trip Counts 5-5
5.3.1.1-Transportation SDC Eligible Assets 5-6
5.3.4.1-Equity Percentage Calculations for Transportation Infrastructure 5-7
5.3.5.1-Transportation SDC Reimbursement Portion Determination 5-8
5.4.1.1-Transportation Capital Improvement Projects 5-90
5.5.1.1-Maximum Transportation System Development Charges 5-10
5.5.2.1-Trip Count Assignment for New Development-Peak Hour Trip End 5-12
6.2.1 – Summary of Recommended SDCs Per EDU 6-1
6.2.2 – System Development Charge (SDC) Calculation Sheet for City of Bandon 6-2
6.2.2 – System Development Charge (SDC) Calculation Sheet for City of Bandon (Cont.) 6-3

APPENDICES

Appendix A
Appendix B
Appendix C
Appendix D
Appendix E

Section

1

INTRODUCTION

1.1 Planning Needs & Objectives

The City of Bandon is experiencing growth. New homes and commercial facilities in the Bandon Urban Growth Boundary place additional demands upon the existing infrastructure and requires the construction of municipal infrastructure to support this development.

The citizens of the community have contributed money through taxes and user fees to construct those elements which make living in the City possible. These elements include streets; water treatment, storage and distribution systems; wastewater collection, pumping and treatment systems; storm water drainage systems and parks.

It is only fair that new development reimburse the existing owners for the portions of existing infrastructure prepared in anticipation of the new arrivals. This charge is known as a reimbursement fee. New growth should also pay for the costs of new infrastructure that would not be required except for the needs of growth. This charge is known as an improvement fee.

These two elements - Reimbursement Fees and Improvement Fees, are the basis of System Development Charges (SDCs). The intention is that neither existing users or new users subsidize the other, but rather that each pays their fair share. According to ORS 223.307 as amended by Senate Bill 939, authorized expenditure of system development charges are as follows:

"Reimbursement fees may be spent only on capital improvements associated with the systems for which the fees are assessed including expenditures relating to repayment of indebtedness" and;

"Improvement fees may be spent only on capacity increasing capital improvements, including expenditures relating to repayment of debt for such improvements. An increase in system capacity may be established if a capital improvement increases the level of performance or service provided by existing facilities or provides new facilities. The portion of the improvements funded by improvement fees must be related the need for increased capacity to provide service for future users."

1.2 Oregon Systems Development Charges Act

Critical concepts of the Systems Development Charges (SDCs) regulations are addressed in this section. Oregon Revised Statutes (ORS) Sections 223.297 to 223.314, which establishes Oregon law regarding SDCs and 2003 Regular Session Senate Bill 939 which amends the ORS are included as Appendix A.

As noted above, there are restrictions on the expenditure of fees collected under the Oregon Systems Development Charges Act. The purpose of the regulations is to provide a uniform framework for the imposition of system development charges by governmental units for specified purposes and to establish that the charges may be used only for capital improvements. This includes land and right-of-way necessary for the improvement.

Under current definitions, "Capital Improvement" means planning, design, inspection, administration of construction and construction or repair costs, but not operations or routine maintenance costs for the following:

- Water supply, treatment and distribution;
- Wastewater collection, transmission, treatment and disposal;
- Drainage and flood control;
- Transportation; or
- Parks and recreation.

Not included with SDCs are connection or hook-up fees, which reimburse the City for its average cost of inspecting and installing connections for water and wastewater service. The City may (and should) collect these in addition to SDCs.

SDCs may not include any fees assessed or collected as part of a local improvement district. For businesses, SDCs may not be based on the number of employees hired without regard to actual usage.

The City must set forth a written methodology in the form of an Ordinance or Resolution for both reimbursement and/or improvement fee portions of the SDC. Support documents, such as this report, must be available for public inspection.

The reimbursement portion of the fee must not require future system users to contribute more than an equitable share to the cost of existing facilities. The method must consider the cost of the existing facilities, prior contributions by existing users, gifts or grants from federal or state government or private persons, the value of unused capacity available to future system users, rate-making principles employed to finance publicly owned capital improvements and other relevant factors identified by the local government imposing the fee.

The improvement portion of the fee must consider the cost of projected capital improvements needed to increase the capacity of the systems to which the fee is related

and be calculated to obtain the cost of capital improvements for the projected need for available system capacity for future users.

The improvement fee must provide for a credit for the construction of a capital improvement that is required as a condition of development approval, identified in a Master Plan, is either not located on or contiguous to property that is the subject of development approval; or is built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related. The capital improvement must be of the same type as the SDC credited and the applicant must demonstrate that a particular improvement qualifies for credit. If the credit is greater than the SDC, then the credit may be used for the applicant's future developments up to a period of 10 years.

The City must maintain a list of persons who have made a written request for notification prior to adoption or amendment of a methodology for any system development charge and mail them information 90 days prior to the first hearing.

A change in the amount of a reimbursement fee or an improvement fee is not a modification of the system development charge if the change in amount is based on the periodic application of an adopted specific cost index or on a modification to any of the factors related to rate that are incorporated in the established methodology

System development charge revenues shall be deposited in accounts designated for such moneys. The governmental unit shall provide an annual accounting, to be completed by January 1 of each year, for system development charges showing the total amount of system development charge revenues collected for each system and the projects that were funded in the previous fiscal year. The governmental unit shall include in the annual accounting, a list of the amount spent on each project funded, in whole or in part, with system development charge revenues.

1.3 Scope of Study

This study will set forth a methodology and recommended SDC fees for the following:

- Water supply, treatment and distribution;
- Wastewater collection, transmission, treatment and disposal;
- Drainage and flood control;
- Transportation

A SDC for parks is being developed internally by the City of Bandon and will be issued under separate cover.

This study, for each service, includes EDU assessment tables, methodology development, and recommended charges for each service EDU. Water is addressed in Section 2; Wastewater in Section 3, Drainage in Section 4 and Transportation in Section

5. The SDC for each service will include a reimbursement and an improvement portion. This study concludes with a summary and chart representing all four service areas. The method of system development charge assessment is included in Section 6.

1.3.1 Reimbursement Fee Method

Based on an inventory of the existing capital improvements, a present day replacement value for each infrastructure element is determined. The age of each element is determined or estimated. Then a depreciated value to the present time is calculated for that class of infrastructure with grant funding percentages excluded.

Next, the portion of each element which is available for new customers is determined. This portion is referred to as excess capacity. Finally, that portion of the excess capacity, depreciated value, existing capital improvements which are already "paid for" by the existing customers is determined. This is referred to as the equity portion. This "paid for" portion represents the "equity" of the system for which the new customers must purchase their share from the existing system customers, who in fact are the owners. Because new customers will pay for their share of existing system elements currently being financed through the debt service portion of user fees and/or through property taxes, they should not be charged for currently financed amounts.

That portion of the non-grant funded, "paid for" and depreciated infrastructure which represents excess capacity (in excess of the present customer's demand) is the reimbursement or "buy in" portion of the SDCs.

Asset values were determined by two methods. Both methods estimate a life expectancy for the item under consideration. One method uses the actual cash cost of the item at the time of installation and depreciates it annually by straight line method for the life of the asset. The other method uses the current replacement cost and depreciates the current value based on the age of the asset. The latter method accounts for inflation, is more equitable and is the preferred method within this study.

As an example, consider the purchase of a home build in 1970, well maintained, with a 100 year life expectancy and originally sold for $30,000. Based on a cash cost basis, the home would be worth only $20,100 today. Assume that the current replacement cost of such a home was today $130,000. Using this figure and depreciating for 33 years of a 100 year life expectancy would provide a value of $87,100 which would be more likely to represent a correct market value.

1.3.2 Improvement Fee

A Capital Improvements Plan (CIP) for each service is the basis of the improvement fee portion of the SDC. It must be determined which elements or portions of elements are strictly for replacement of existing capacity and which are for new service. SDC eligible costs for Capital Improvement Plans have already been developed for water, storm

drainage and wastewater. A capital improvement plan for transportation has been developed, but the SDC eligible portions must be determined in this study.

Information is presented in a tabular fashion for each service and each appropriate class of new customer including existing and projected EDUs.

1.4 Previous Studies and Information

The following studies, reports and other sources of information have been used in the compilation of the System Development Charge Study:

- City of Bandon Capital Improvement Plan for the Establishment of Systems Development Chargers, June 1991, Gary L. Dyer, P.E. Consulting Engineers
- City of Bandon Wastewater System Master Plan, June 2002, The Dyer Partnership Engineers & Planners, Inc.
- City of Bandon Water System Master Plan Addendum, October 2003, The Dyer Partnership Engineers & Planners, Inc.
- Bandon Transportation System Plan, October, 2000, Tom Schauer, Senior Planner & City Staff, City of Bandon
- City of Bandon Storm Drain Master Plan, June 1999, The Dyer Partnership Engineers & Planners, Inc.
- South Bandon Refinement Plan, Infrastructure Element, June 1997, The Dyer Partnership Engineers & Planners, Inc
- City of Bandon, Accounting Report (Unit Value $5,000 and over), April 29, 2002, Valuations Northwest, Inc.
- City of Bandon Insurance & Property Accounting Report, April 29, 2002, Valuations Northwest, Inc.
- City of Bandon Data Management System, Table Lists - Life Exp & Deprecation, August 22, 2003.
- Computer Data files for Bandon, Proj. 4501.00, Water and Storm Inventory.xls, The Dyer Partnership Engineers & Planners, Inc.
- Engineering News Record, Construction Cost Index History, McGraw Hill Co. 10/22/03 (www.enr.construction.com).
- Table 1 - Actual Hydraulic Use vs. Virginia Design Flow (www.vdh.state.va.us)

- Connecticut Public Health Code, (www.dph.stae.ct.us / subcode.pdf)
- System Development Charges, City of Troutdale, Oregon (www.ci.troutdale.or.us)
- Table 2 (www.clayhealth.com / sewregs.htm)
- Sewage Disposal Tables.html (www.co.el-eorado.ca.us)
- Trip Generation, Institute of Transportation Engineers, 6th Edition, 1995.
- 72nd Oregon Legislative Assembly - 2003 Regular Session - Senate Bill 939
- Oregon Revised Statutes 223.297 to 223.314

1.5 Authorization

The City of Bandon contracted with The Dyer Partnership, Engineers & Planners, Inc. on January 1, 2003 to prepare the System Development Charge Study. The project was temporarily halted by the City pending completion of the Water Master Plan Addendum and re-started September 10, 2003 by the City Manger.

1.6 Acknowledgments

This plan is the result of contribution made by a number of individuals and agencies. We wish to acknowledge the efforts of Matt Winkel, City Manager; Jason Locke, Community Development director; Glenn Thurkow, Finance Director; Sandi Butler, Assistant Finance Director; Beverly Lanier, Administrative Assistant and the other staff members of the City of Bandon.

WATER SUPPLY, TREATMENT & DISTRIBUTION

Section 2

2.1 General

Bandon's water system infrastructure consists of land, buildings, structures, electro-mechanical equipment, electronic and mechanical instrumentation, piping, valves and tankage. Only capital improvement items will be considered eligible for existing excess capacity reimbursement or for planned improvement fee collection to increase capacity.

For the purposes of this study, vehicles and tools associated with operations and maintenance have not been included as eligible System Development Charges (SDCs).

2.2 Projected EDUs and Services

In order to establish SDCs, it is necessary to determine both the current number of Equivalent Dwelling Units (EDUs) and the projected future number of EDUs in the water system. The total value of eligible reimbursement and improvement items are divided by the projected new EDUs to calculate the per EDU system development charge. These EDU projections were developed in the Water Master Plan Addendum recently completed. The projections are shown below in Table 2.2.1.

Table 2.2.1 Water EDU and Service Connection Projections

Account	2000-2002 Sty. Period		2003		2008		2013		2018		2023	
	Svc.	EDU	Svc.	EDU	Svc.	EDU	Svc.	EDU	Svc.	EDU	Svc.	EDU
Residential Inside	1250	1250	1294	1294	1412	1412	1541	1541	1682	1682	1835	1835
Residential Outside	87	82	90	85	98	93	107	101	117	110	128	120
Commercial Inside	325	1072	337	1110	367	1211	401	1322	437	1442	477	1574
Commercial Outside	18	56	19	58	20	63	22	69	24	75	26	82
City Use Charged	24	101	25	105	27	114	30	125	32	136	35	148
City Use No Charge	2	3	2	3	2	3	2	4	3	4	3	4
Totals	1706	2564	1767	**2655**	1928	2897	2103	3161	2295	3449	2504	**3764**

2.3 Reimbursement Fee Methodology Development

2.3.1 Inventory and Depreciated Value

An inventory of the Bandon water system's existing capital improvements and assets considered eligible for reimbursement is presented in this section. The principal source of information was generated through Bandon's data base management system and is identified as: "Table Lists - Life Expectancy and Deprecation, Water Fund, page 8". It is dated August 22, 2003. The document lists assets with a cash cost of greater than $5,000. This tabular information is included in Appendix B

For the Water Pipe Inventory, additional supporting documentation was obtained from the data records of Dyer Partnership (City Engineer) for Bandon titled "Water and Storm Inventory". This document was prepared June 30, 1994 and represents the information source for Bandon's data base management system described above, specifically for "Asset Number 7200001 Water Pipe Inventory". This data is included in Appendix B

Inventory information regarding capital investment in equipment and tools for the water treatment was determined from the City of Bandon Insurance and Property Accounting Report and from the Accounting Report (Unit Value $5,000 and over) prepared April 29, 2002 by Valuations Northwest, Inc. Equipment data on pages 50 through 54 of the Property Accounting Report associated with Water Plant operations is included in Appendix B.

The information source noted above includes tools, lab equipment and other items which are usually not associated with capital improvement assets, bur rather with operations and maintenance items. These items are not included in the inventory list presented below for this reason.

Using the above referenced data sources, a tabulation of assets which qualify as capital improvement assets are presented on the following page as Table 2.3.1.1, Water SDC Eligible Assets. The tabulation of assets includes Bandon's asset number for the item, a description, date of acquisition, life expectancy, age, replacement cost and current depreciated valuation.

The asset values provided by the City are generally based upon the cash cost of the item. However, most of the items were acquired within the last 3 years and would not be valued significantly differently on a replacement cost basis. Therefore the City's valuation will be used with the exception of Water Tank #1 acquired in 1970, the Water Clarifier acquired in 1981 and Water Pipe Inventory. It should be noted that the value of the pipe inventory was established in 1994 based on then current replacement costs and depreciated at that time based on the average age of the various pipe size and material categories.

Table 2.3.1.1 Water SDC Eligible Assets

Asset No.	Description	Date Acquired	Life Yrs.	Age Yrs.	Replacement Cost	Current Value
	Plant and Intake					
2000972	Water Pump, Vert. Turbine	6/1/2000	15	3	$15.974	$12.692
2000973	Water Pump, Vert. Turbine	6/1/2000	15	3	$44.100	$35.039
2000974	Telemetry Unit	6/1/2000	20	3	$15.680	$13.264
2000975	Water Piping & Valve -Lot	6/1/2000	40	3	$23.997	$22.148
2000976	Water Pump, Vert. Turbine	6/1/2000	15	3	$12.740	$10.124
2000977	Water Pump, Vert. Turbine	6/1/2000	15	3	$16.170	$12.848
2000978	Water Piping & Valve -Lot	6/1/2000	40	3	$15.576	$14.375
2000979	Telemetry Unit	6/1/2000	20	3	$15.680	$13.264
2001091	Pump House-Middle	6/1/2000	50	3	$32.157	$30.228
2001118	Water Treatment Building	6/1/2000	50	3	$366.331	$344.352
2001130	Water Treatment Plant[2]	6/1/2000	40	3	$2.961.291	$2.739.193
2001131	Water Clarifier, Water Dept.	6/1/1981	30	22	$590.000	$157.144
2001132	Pump House-Lower	6/1/2000	30	3	$22.805	$20.523
2001151	New Raw Water Intake-Complete	6/30/2003	15	0	$133.982	$133.267
	Subtotal				**$4.266.483**	**$3.558.462**
	Storage					
2001092	Water Tank #1, 1 Million Gal.	6/1/1970	50	33	$300.000	$101.858
2001093	Water Tank #2, 2 Million Gal.	6/1/2000	50	3	$547.197	$514.365
	Subtotal				**$847.197**	**$616.223**
	Land					
2001185	Land-York Watershed		0		$100.000	$100.000
2001186	Land-160 Acres Watershed		0		$237.860	$237.860
2001187	Land-Water Treatment Plant		0		$233.163	$233.163
	Subtotal				**$571.023**	**$571.023**
	Distribution					
2001181	Fire Hydrants	6/30/2002	20	1.00	$175.000	$166.250
7200001	Water Pipe					
	2" PVC 7,050 ft.	1984	60	19	$115.056	$36.434
	3" AC 20 ft.	1969	40	34	$331	$282
	4" AC 35,530 ft.	1969	40	34	$733.339	$623.338
	4" DI 80 ft.	1989	50	14	$2.870	$804
	4" PVC 9,560 ft.	1984	60	19	$263.856	$83.554
	6" AC 28,190 ft.	1969	40	34	$798.341	$678.590
	6" DI 40 ft.	1989	50	14	$1.968	$551
	6" PVC 22,880 ft.	1984	60	19	$864.864	$273.874
	8" AC 2,550 ft.	1969	40	34	$80.478	$68.406
	8" PVC 14,860 ft.	1984	60	19	$624.120	$197.638
	10" AC 19,090 ft.	1969	40	34	$643.715	$547.158
	10" DI 2,830 ft.	1984	50	19	$165.725	$62.975
	10" PVC 5,360 ft.	1984	60	19	$241.200	$76.380
	12" AC 3,610 ft.	1969	40	34	$134.292	$114.148
	12" DI 2,130 ft.	1989	50	14	$137.513	$38.504
	12" PVC 5,610 ft.	1984	60	19	$278.705	$88.257
	Subtotal				**$5.261.373**	**$3.057.142**
	TOTAL				**$10.946.076**	**$7.802.851**

[1] Value corrected as shown Accounting Report vs Insur. & Property Acc. Rpt
[2] Includes approx. 8700 LF of 12" pipe installed as South Loop Line from Plant to Harvard.

2.3.2 Grant Funding Portion

As previously discussed, those portions of the water infrastructure which were paid for by Federal or State funds through grants are not eligible for system development charge reimbursement. There are no known grants associated with water infrastructure improvements with the exception of the recently constructed water plant. A grant of $750,000 out of $5,200,000 or 14.42% of project costs was grant funded.

2.3.3 Capacity Remaining

Plant and Raw Water System. The plant and raw water pump systems, piping and equipment associated with it has capacity to provide water for all projected growth in the next 20 year period. There are 2655 current water EDUs with 1109 additional EDUs projected by the year 2023 totaling 3764 EDUs. The percentage "share" of the plant and raw water pump systems is therefore (1/3764) of the plant equity value or 0.0265675 % per EDU. For 1200 new growth EDUs this is 31.88 % of the plant and raw water pump system value This portion of the plant value should be considered potentially eligible for SDC reimbursement.

Land. The land associated with the water system is associated with the water plant and raw water systems. It's EDU share is computed in the same manner as the plant and raw water systems and will be 31.88% of the value.

Water Storage System. The water storage reservoirs have 3,000,000 gallons of storage capacity. As indicated in Table 5.2.1 in the Water Master Plan Addendum, currently 2,665,000 gallons are currently required. There remains 11.17 % of the existing storage system which should be considered potentially eligible for SDC reimbursement. The new user share of the storage system would therefore be (.1117) x (1/1109) or 0.010072 % per EDU.

Distribution System. With respect to the distribution system, it has been determined that parts of the existing piping are not adequate in size to provide fire flows to portions of the existing community. However, combined with a number of new pipe installations proposed in the future, the existing piping network will provide necessary distribution for both existing and new customers. Because much of the anticipated growth will occur in areas not yet developed or served with existing water lines, it is estimated that only 33% of the existing distribution system should be considered available for future customers and therefore potentially eligible for SDC reimbursement. The remaining 67 % considered to be already utilized. This will result in a share for new customers of (.33) x (1/1109) or 0.029757 % per EDU of the distribution system value. The remaining capacity percentage is indicated for each type of water infrastructure improvement in Table 2.3.5.1

2.3.4 Equity Portion

The equity portion of the water system consists of the depreciated and non-grant funded, SDC eligible infrastructure value which represents excess capacity available for new customers and which is not currently being financed. This amount is divided by the number of anticipated EDUs which will be added to the system during the study period. The result is the reimbursement portion of the SDC.

The City of Bandon has three outstanding loans for water system improvements. The first is a bank loan for water shed land in the amount of $80,000 and was originated in 1996. It has an interest rate of 9%. The loan will be paid out by 2005. At this time only $8,793 of the principle remains to be paid. Therefore the equity is currently $71,207 or 89.0% of the loan. The second is a State Revolving Fund loan (Number S99001) for $500,000 and was originated 2/25/2000. It has an interest rate of 4.12% and a 20 year term. The outstanding principal is $448,174. Therefore, the equity portion of the loan is $51,826 or 10.4%. The third is a General Obligation Bond for $3,050,000 and was originated 11/9/2000. It has an interest rate of 4.5% and a 40 year term. The outstanding principal is $2,991,681. Therefore the equity portion of the loan is $58,319 or 1.9%.

The second and third loans were for the purpose of designing and upgrading the water treatment plant, water storage tank and construction of the south loop water line from the plant to Harvard Street. The value of the 12" south loop water line constructed in the year 2000 is included in the plant and intake valuation. The 2 million gallon tank had an original cash cost of $547,197. Presented below in Table 2.3.4.1 are the calculations for water infrastructure equity percentages.

Table 2.3.4.1 Equity Percentage Calculations for Water Infrastructure

Plant and Intake Replacement Cost	$4,266,483		**Storage Replacement Cost**	$847,197
Loan Amount	$3,050,000		Loan Amount	$500,000
Principal Paid	$58,319		Principal Paid	$51,826
Equity Total	$1,274,802		Equity Total	$399,023
% Equity	**29.88%**		**% Equity**	**47.10%**
Land Cost	$571,023		**Distribution Replacement Cost**	$5,261,373
Loan Amount	$80,000		Loan Amount	$0
Principal Paid	$71,207		Principal Paid	$0
Equity Total	$562,230		Equity Total	**$5,261,373**
% Equity	**98.46%**		**% Equity**	**100.00%**

2.3.5 Calculation of Water SDC Reimbursement Fee

Table 2.3.5.1 titled Water SDC Reimbursement Portion Determination presents the calculations required to compute the reimbursement portion of the water SDC. The reimbursement portion per EDU is computed by dividing the remaining capacity equity

value by the projected 1109 new EDUs anticipated in Bandon during the study period. The table includes the steps described in sub-section 2.3.1 through 2.3.4 above.

Table 2.3.5.1 Water SDC Reimbursement Portion Determination

Description	Depreciated Current Value	Non-Grant Portion %	Remaining Non-Grant Value	Capacity Eligible %	Remaining Capacity Value	Equity Portion %	Remaining Equity Value	Reimbursement Portion per EDU
Plant and Intake	$3,558,462	85.58	$3,045,332	31.88	$970,852	29.88	$290,091	$262
Storage	$616,223	100	$616,223	11.17	$68,832	47.10	$32,420	$29
Land	$571,023	100	$571,023	31.88	$182,042	98.46	$179,239	$162
Distribution	$3,057,142	100	$3,057,142	33.00	$1,008,857	100.00	$1,008,857	$910
Total	**$7,802,851**		**$7,289,720**		**$2,230,583**		**$1,510,606**	**$1,362**

2.4 Improvement Fee Methodology Development

2.4.1 Capital Improvement Plan

The capital improvement plan is the basis of the improvement fee portion of the SDC and was developed in the recently completed Water Master Plan Addendum. The cost estimates presented include four components: construction cost, engineering cost, contingency, and legal and administrative costs.

Thirty-four recommended water system improvement projects have been developed in the Master Plan Addendum The proposed projects are presented in Section 7 of the Water Master Plan Addendum.

The estimated project costs presented are based on current construction expenses. These projects were determined to be necessary for the next 20 year period to accommodate growth and to correct existing water system deficiencies. Descriptions and explanations for each project are included in Section 7 of the Water Master Plan Addendum.

2.4.2 System Development Charge Eligible Portion

Listed below in Table 2.4.2.1 are the capital improvements as described above. A percentage is estimated for each project presenting the portion which is constructed to provide or support new service. This is the SDC eligible portion. Those parts of projects which improve service to existing customers or are to be constructed to meet new regulatory requirements for existing customers are ineligible. Most projects will provide both functions.

New customer EDUs will comprise 29% of the total system EDUs by the end of this next 20 year period, based on the current estimate of 2655 EDUs and 3764 EDUs by 2023. Therefore projects which benefit all customers equally (and have a service life of at least 20 years) will have an SDC eligibility of 29%. For the purposes of this report, these will be referred to as Type A projects.

Projects which are not required to serve current customers but rather are needed for future customers only will have an SDC eligibility of 100%. These will be referred to as Type B projects.

Those projects in the southern, largely undeveloped portion of Bandon which increase fire protection for existing customers and also provide for new service will be functionally apportioned on the basis of 75% for new service and 25% for increased existing system fire protection. This will be a Type C project. The 25% portion for existing system fire protection will contain a 29% SDC eligibility sub-portion. Therefore the SDC eligibility of Type C projects will be [(0.25 x 0.29) + 0.75] x Project Cost or 82.25%.

Those projects within the developed portion of Bandon which are proposed generally for fire protection will be apportioned on the basis of 20% for new service and 80% for increased fire protection. This will be referred to as a Type D project. The SDS eligibility is calculated as: [(0.80 x 0.29) + 0.20] x Project Cost or 43.20%.

The prioritized projects with an estimated SDC eligibility percentage are presented below as Table 2.4.2.1. This table is identical to the table developed in Section 7 of the Water Master Plan Addendum and presented in that report as Table 8.3.1 with the exception of projects 1 and 3 SDC eligibility. Because project 2 is recommended and is an alternative to these projects the SDC eligibility for projects 1 and 3 is zero.

Table 2.4.2.1 Water Capital Improvement Projects with SDC Eligible Costs

Project No.	Priority I Project Description	Total Project Cost	Type	SDC Eligible %	SDC Cost
3	Wind Hurst Reservoir Water Purchase Options (annual)	$1,864	A	0	$0
9	South Bandon 0.25 Million Gallon Reservoir & Pump Station	$670,042	B	100.00	$670,042
13	Harvard to Filmore to Seabird	$610,457	C	82.25	$502,101
14	Face Rock extension to Highway 101 - by 24th Street	$647,347	C	82.25	$532,443
24	Grand Avenue SE between 9th SE & 10 SE	$44,927	D	43.20	$19,408
33	9th Street - Jackson to Beach Loop	$221,925	D	43.20	$95,872
34	Polaris to Beach Loop	$15,830	D	43.20	$6,839
	Total Priority 1 Projects	***$2,212,392***			*$1,826,704*

Project No.	Priority II Project Description	Total Project Cost	Type	SDC Eligible %	SDC Cost
2	Johnson Creek Reservoir	$985,200	B	100.00	$985,200
4	Streaming Current Meter	$22,560	A	29.00	$6,542
5	UV Disinfection Equipment	$69,287	A	29.00	$20,093
11	Cathodic Protection Steel Reservoirs	$20,224	A	29.00	$5,865
16	Franklin 11th to 13th	$74,127	C	82.25	$60,969
18	Jackson 12th to Face Rock	$157,113	B	100.00	$157,113
21	Ohio Avenue - Highway 42S to 10th Street NE	$532,984	D	43.20	$230,249
26	Highway 101 - 13th to 14th & 15th to 17th	*$109,531*	D	43.20	$47,317
27	Baltimore Ave. Extension South	$78,460	B	100.00	$78,460
31	9th Street Extension to Jackson Avenue	$26,098	D	43.20	$11,274
	Total Priority 2 Projects	***$2,075,584***			***$1,603,082***
	Total Priority 1 & 2 Projects	$4,287,976			$3,429,786

Table 2.4.2.1 Water Capital Improvement Projects with SDC Eligible Costs (Cont.)

Project No.	Priority III Project Description	Total Project Cost	Type	SDC Eligible %	SDC Cost
6	New Clarifier	$596,160	D	43.20	$257,541
7	Flow Measurement Equipment - Lower Pump Station	$33,092	A	29.00	$9,597
10	2nd Phase South Bandon 0.25 Million Gallon Reservoir	$385,688	B	100.00	$385,688
12	System-Wide Water Meter Replacement (annual)	$56,697	A	29.00	$16,442
17	Franklin 15th SE to 24th SE	$140,353	B	100.00	$140,353
22	10th Street NE - Michigan Ave. to Ohio Ave.	$304,816	C	82.25	$250,711
25	13th Street - Franklin to Delaware	$135,350	D	43.20	$58,471
28	Douglas and Bandon Extension to 8th Street	$41,792	B	100.00	$41,792
	Total Priority 3 Projects	***$1,693,948***			***$1,160,595***
	Total Priority 1, 2 & 3 Projects	***$5,981,924***			***$4,590,381***

Project No.	Priority IV Project Description	Total Project Cost	Type	SDC Eligible %	SDC Cost
1	Simpson Creek Reservoir Restoration	$503,060	B	0	$0
8	Sun Shade Filter Basins	$8,115	A	29.00	$2,353
15	Highway 101 - Seabird to Ocean Spray	$289,841	B	100.00	$289,841
19	Franklin 24th to Seabird	$200,417	B	100.00	$200,417
20	Jackson 24th to New South Tank Line	$106,025	B	100.00	$106,025
23	River Road to Michigan	$564,962	C	82.25	$464,681
29	Chicago - 9th to 10th	$31,353	D	43.20	$13,544
30	North Ave., 3rd SE to 4th SE & June, Klamath, Lexington	$89,575	C	82.25	$73,675
32	2nd W Street Extension - Douglas to Edison	$29,179	A	29.00	$8,462
	Total Priority 4 Projects	***$1,822,527***			*$1,158,999*
	Total Priority 1, 2, 3 & 4 Projects	***$7,804,451***			***$5,749,380***

System development charge eligible, improvement fee portion costs in the amount of approximately $5,749,380 of capital improvement projects may be paid with funds collected for this purpose from new development. The fee for each new EDU should be established to collect the fee over a 20 year period.

Based on the projected growth rate for Bandon for the next 20 years, the City is expected to add 1,109 EDUs to the water system. Therefore, the EDU charge for improvement fee portion of the SDC can be no greater than ($5,749,380 / 1109) = $5,184 per EDU.

2.5 Recommended Charges

2.5.1 Calculation of Total Water System Development Charge

The Water System Development Charge may be as high as the summation of the reimbursement portion and the improvement portions computed in the above sections. The summation is shown below in Table 2.5.1.1

Table 2.5.1.1 Maximum Water System Development Charges

SDC Component	Total Amount	Charge per EDU (1109)
Reimbursement	$1,510,606	$1,362
Improvement	$5,749,380	$5,184
Total	**$7,259,986**	**$6,546**

2.5.2 Assessment Table

A determination of the number of EDUs associated with each new service connection must be made in order to fairly charge new customer the appropriate SDC amount. In the case of single family dwellings this will usually be simple. One new service connection equals one EDU. However, in the case of commercial or industrial customers, the assessment becomes more difficult. The intention is to estimate the amount of water usage which will occur in terms of equivalent inside residential dwelling units. For water, a use of 155.7 gallons per service per day has been established as the average EDU demand rate. Listed below in Table 2.5.2.1 are the billing sector comparisons of existing classes of users in Bandon. Note that for purposes of the SDC program, new outside residential users should be assessed 1 EDU, as should new inside residential users, even though historically, the outside residential use has been slightly lower.

Table 2.5.2.1 Water EDU Sector Summary

Account	GPD/Svc.	EDU Per Svc.
Residential-Inside	155.7	1.00
Residential– Outside	147.0	0.94
Commercial- Inside	513.8	3.30
Commercial-Outside	498.2	3.20
City Use –Charged	656.9	4.22
City Used –No Charge	249.3	1.60

A method commonly used to predict water consumption within ranges is to estimate EDUs based upon meter size installed for the new customer. Listed below in Table 2.5.2.2 are meter sizes and hydraulic equivalent (HE) factors relating larger meters to typically installed 3/4" meters residential services. It is interesting to note that a 1 1/2" meter which is typical for a commercial installation has an HE factor of 3.3. This matches the Bandon EDU ratio between inside residential customer water use and inside commercial use which is also 3.3. A direct relationship between hydraulic equivalents and EDUs may be assumed. Therefore the installed meter size may be used as the basis of SDC charges for water customers. As developed in Table 2.5.1.1, $6,546 per EDU is recommended as the base water SDC. The recommended assessment method presented below in Table 2.5.2.2 provides recommended SDC charges for new water customers based on installed meter size.

Table 2.5.2.2 Recommended Water SDC Charges		
Meter Size	**Hydraulic Equivalent per Meter**	**Cost per Meter**
3/4"	1	$6,546
1"	1.7	$11,128
1 1/2"	3.3	$21,602
2"	5.3	$34,694
3"	10	$65,460
4"	16.7	$109,318
6"	33.3	$217,982
8"	53.3	$348,902

WASTEWATER COLLECTION & TREATMENT

Section 3

3.1 General

Bandon's wastewater system infrastructure consists of land, buildings, structures, electro-mechanical equipment, electronic and mechanical instrumentation, piping, valves and tankage. Only capital improvement items will be considered eligible for existing excess capacity reimbursement or for planned improvement fee collection to increase capacity.

For the purposes of this study, vehicles and tools associated with operations and maintenance have not been included as eligible System Development Charges (SDCs).

3.2 Projected EDUs and Services

In order to establish wastewater SDCs, it is necessary to determine both the current number of Wastewater Equivalent Dwelling Units (EDUs) and the projected future number of EDUs in the wastewater system. The total cost of eligible reimbursement and improvement items are divided by the projected new EDUs to calculate the per EDU system development charge.

Water and wastewater EDUs were determined differently in the Water Master Plan and the Wastewater Master Plan. The Water Master Plan used city billing classifications for assignment of residential and commercial users in order to directly correlate the City's consumption billing records with the class of user. Under this classification method, the typical water commercial account, consumed 3.3 times as much water as the typical residential account.

The Wastewater Master Plan also utilized City water billing records, but did not classify all commercial accounts in terms of commercial EDUs. For example, a commercial account apartment complex with a single meter was divided into the number of actual dwelling units which were classified as residential EDUs. Wastewater EDUs do not correlate well with water EDUs. This is because apartment residents typically use less water than a single family detached dwelling. However an apartment residence (no lawn or garden watering) does typically produce about the same amount of wastewater as a single family detached dwelling.

Other differences in Bandon include, for example, the commercial fish processing plant which is a large water user. It represents many water EDUs but is a small commercial wastewater user representing few wastewater EDUs. This is because none of the plant's

process water is contributed to the public wastewater system. Only domestic (rest room) waste is contributed. The assignment of wastewater EDUs is therefore more complex than water EDU assignment because there are no direct metering records associated with actual wastewater contribution.

EDU classification relating to Water SDCs may ultimately to related to the size (and associated capacity) of the water meter serving the new account. However, wastewater SDCs will be assessed on the basis of facility characteristics rather than on water meter size. A single family residential unit will still be set as the index value of one (1) and other wastewater users will be related to this associated flow value. It must be remembered that the wastewater flow contribution for a single family dwelling will typically be only about 75 to 80 percent of the actual water consumption and will not match the water system classification of EDU on a flow basis. Therefore, it is important for all discussions relating to SDCs that the specific type of service EDU (water, wastewater, etc.) be identified.

The wastewater EDU projections as developed in the Wastewater Master Plan are shown below in Table 3.2.1.

Table 3.2.1 Wastewater EDU Projections

Projected EDUs	2000	2003	2008	2013	2018	2021	2023
Residential	1282	1364	1513	1677	1860	1979	2063
Commercial/Industrial	452	476	520	567	619	652	675
Total EDUs	1734	1840	2032	2244	2479	2631	2738

3.3 Reimbursement Fee Methodology Development

3.3.1 Inventory and Depreciated Value

An inventory of the Bandon wastewater system's existing capital improvements and assets considered eligible for reimbursement is presented in this section. The principal source of information was generated through Bandon's data base management system and is identified as: "Table Lists - Life Expectancy and Deprecation, Sewer Fund, page 5". It is dated August 22, 2003. The document lists assets with a cash cost of greater than $5,000. This tabular information is included in Appendix C

For the gravity sewer pipe and force mains, additional supporting documentation was obtained from the data records of Dyer Partnership (City Engineer) for Bandon titled "Water and Storm Inventory". This document was prepared June 30, 1994 and represents the information source for Bandon's data base management system described above, specifically for Asset Numbers 7000001 and 7000002, Sewer Pipe Inventory - Gravity and Sewer Pipe Inventory - Force Main This data is included in Appendix C

Inventory information regarding capital investment in equipment and tools for wastewater treatment was determined from the City of Bandon Insurance and Property Accounting Report and from the Accounting Report (Unit Value $5,000 and over) prepared April 29, 2002 by Valuations Northwest, Inc. Equipment data on pages 55 through 64 of the Property Accounting Report associated with wastewater operations is included in Appendix C.

The information sources noted above list tools, lab equipment and other items which are not associated with capital improvement assets, but with operations and maintenance items. Most are not included in the inventory list presented below for this reason.

Using the above referenced data sources, a tabulation of assets which qualify as capital improvement assets are presented below as Table 3.3.1.1, Wastewater SDC Eligible Assets. The tabulation of assets includes Bandon's asset number for the item, a description, date of acquisition, life expectancy, age, replacement cost and current depreciated valuation.

The asset values provided by the City are generally based upon the cash cost of the item. Most of the items were acquired between 1970 and 1993. The items would be valued differently on a replacement cost basis. Therefore the City's valuation will be updated with the exception of the muti-channel recorder acquired in 2003. It should be noted that the value of the sewer pipe inventory was established in 1994. This was based on then current replacement costs which were depreciated based on average pipe age of approximately 20 years at that time.

Table 3.3.1.1 Wastewater SDC Eligible Assets

Asset No.	Description	Date Acquired	Life Yrs.	Age Yrs.	ENR Index	Original Cost	Replacement Cost	Current Value
	Plant							
2000980	Water Pump, Vert. Turbine	6/1/1993	15	10	5260	$60,000	$76,357	$25,452
2000981	Water Piping & Valve -Lot	6/1/1993	40	10	5260	$12,891	$16,405	$12,304
2000982	Telemetry Unit	6/1/1993	20	10	5260	$8,600	$10,945	$5,472
2000984	Water Pump, Submersible w/Wiring	6/1/1995	15	8	5432	$7,820	$9,637	$4,497
2001019	Sludge Pump on Trailer	4/1/2002	5	1	6532	$24,000	$24,595	$19,676
2001085	Tanker Truck, 1992	6/1/1992	20	11	4973	$54,000	$72,688	$32,709
2001094	Sewer Plant, MS	6/1/1970	40	33	1381	$2,279,522	$11,049,327	$1,933,632
2001095	Sludge Thickener	6/1/1993	30	10	5260	$25,701	$32,708	$21,805
2001096	Pump Shelter RAS	6/1/1986	30	17	4303	$12,048	$18,743	$8,122
2001119	Admin. Ofc. Lab/Sewage Tr.	6/1/1970	50	33	1381	$18,187	$88,156	$29,973
2001120	Operations Building, Sewage Tr.	6/1/1993	50	10	5260	$133,657	$170,095	$136,076
2001138	Multi Channel Recorder	6/1/2003	10	0	6694	$10,546	$10,546	$10,546
2001157	City Shop-Const. in Progress	6/1/1999	50	4	6039	$13,251	$14,688	$13,513
2001160	City Shop-Const. in Progress	6/1/2000	50	3	6238	$39,555	$42,446	$39,900
2001163	City Shop-Const. in Progress	6/1/2001	50	2	6318	$27,325	$28,951	$27,793
	Subtotal					**$2,727,103**	**$11,666,287**	**$2,321,472**

Table 3.3.1.1 Wastewater SDC Eligible Assets (Cont.)

Asset No.	Description	Date Acquired	Life Yrs.	Age Yrs.	ENR Index	Original Cost	Replacement Cost	Current Value
	Pump Stations							
2001097	Lift Station, Fillmore	6/1/1993	30	10	5260	$11,384	$14,488	$9,658
2001098	Lift Station, North Avenue	6/1/1978	30	25	2776	$18,640	$44,948	$7,491
2001121	Lift Station, Johnson Creek	6/1/1982	30	21	3815	$33,479	$58,744	$17,623
2001122	Lift Station, Jetty	6/1/1998	30	5	5895	$36,510	$41,459	$34,549
	Subtotal					**$100,013**	**$159,638**	**$69,322**
	Land							
2001184	Land- Wastewater Plant					$31,675	$31,675	$31,675
	Subtotal					**$31,675**	**$31,675**	**$31,675**
	Collection							
7000001	Sewer Pipe Inventory-Gravity							
	6" PVC 1180 LF	6/1/1975	60	28	2212	$58,017	$175,572	$93,639
	6" C 650 LF	6/1/1975	60	28	2212	$11,505	$34,817	$18,569
	8" PVC 11780 LF	6/1/1975	60	28	2212	$724,470	$2,192,406	$1,169,283
	8" VC 8310 LF	6/1/1975	60	28	2212	$122,711	$371,351	$198,054
	8" AC 24,350 LF	6/1/1975	60	28	2212	$536,531	$1,623,661	$865,953
	8" VC 46,750 LF	6/1/1975	60	28	2212	$1,034,344	$3,130,153	$1,669,415
	10" PVC 1800 LF	6/1/1975	60	28	2212	$123,300	$373,133	$199,004
	10" VC 600 LF	6/1/1975	60	28	2212	$9,860	$29,839	$15,914
	10" C 5090 LF	6/1/1975	60	28	2212	$125,596	$380,081	$202,710
	12" AC 4030 LF	6/1/1975	60	28	2212	$109,263	$330,654	$176,349
	12" C 8030 LF	6/1/1975	60	28	2212	$163,210	$493,909	$263,418
	14" C 350 LF	6/1/1975	60	28	2212	$10,789	$32,650	$17,413
	15" C 1610 LF	6/1/1975	60	28	2212	$59,590	$180,332	$96,177
	18" C 240 LF	6/1/1975	60	28	2212	$11,844	$35,843	$19,116
	20 " C 60 LF	6/1/1975	60	28	2212	$3,330	$10,077	$5,375
	Subtotal					**$3,104,360**	**$9,394,478**	**$5,010,388**
7000002	Sewer Pipe Inventory-Force Main							
	4" Unk. 80 LF	6/1/1975	60	28	2212	$920	$2,784	$1,485
	6" PVC 8670 LF	6/1/1975	60	28	2212	$227,588	$688,731	$367,323
	12" DI 250 LF	6/1/1975	60	28	2212	$8,070	$24,422	$13,025
	Subtotal					**$236,578**	**$715,937**	**$381,833**
	TOTAL					**$6,199,729**	**$21,968,016**	**$7,814,690**

3.3.2 Grant Funding Portion

As previously discussed, those portions of the wastewater infrastructure which were paid for by Federal or State funds through grants are not eligible for system development charge reimbursement. The portion of the inventoried wastewater system for which grants were received is assumed to be for construction prior to 1980. At that time, 75% EPA grants were common for wastewater improvements although the 1970 sewer plant

only received 21.93% in grants. The grant funding percentage reduction is calculated for each type of wastewater infrastructure improvement in Table 3.3.2.1 below.

Table 3.3.2.1 Wastewater Non-Grant Eligible Assets

Asset No.	Description	Date Acquired	Original Cost	Grant %	Estimated Grant Amount
	Plant				
2000980	Water Pump, Vert. Turbine	6/1/1993	$60,000	0	$0
2000981	Water Piping & Valve -Lot	6/1/1993	$12,891	0	$0
2000982	Telemetry Unit	6/1/1993	$8,600	0	$0
2000984	Water Pump, Submersible w/Wiring	6/1/1995	$7,820	0	$0
2001019	Sludge Pump on Trailer	4/1/2002	$24,000	0	$0
2001085	Tanker Truck, 1992	6/1/1992	$54,000	0	$0
2001094	Sewer Plant, MS	6/1/1970	$2,279,522	21.93	$500,000
2001095	Sludge Thickener	6/1/1993	$25,701	0	$0
2001096	Pump Shelter RAS	6/1/1986	$12,048	0	$0
2001119	Admin. Ofc. Lab/Sewage Tr.	6/1/1970	$18,187	75	$13,640
2001120	Operations Building, Sewage Tr.	6/1/1993	$133,657	0	$0
2001138	Multi Channel Recorder	6/1/2003	$10,546	0	$0
2001157	City Shop-Const. in Progress	6/1/1999	$13,251	0	$0
2001160	City Shop-Const. in Progress	6/1/2000	$39,555	0	$0
2001163	City Shop-Const. in Progress	6/1/2001	$27,325	0	$0
	SUBTOTAL		**$2,727,103**		**$513,640**
	% of Plant Non-Grant				**81.17%**
	Pump Stations				
2001097	Lift Station, Fillmore	6/1/1993	$11,384	0	$0
2001122	Lift Station, Jetty	6/1/1998	$36,510	0	$0
	SUBTOTAL		**$47,894**		**$0**
	% of Fillmore/Jetty Non-Grant				**100.00%**
2001098	Lift Station, North Avenue	6/1/1978	$18,640	75	$13,980
	SUBTOTAL		**$18,640**		**$13,980**
	% of Fillmore/Jetty Non-Grant				**25.00%**
2001121	Lift Station, Johnson Creek	6/1/1982	$33,479	0	$0
	SUBTOTAL		**$33,479**		**$0**
	% of Pump Sta. Non-Grant				**100.00%**
	Land				
2001184	Land- Waste Water Plant		$31,675	0	$0
	SUBTOTAL		**$31,675**		**$0**
	% of Land Non-Grant				**100.00%**

Table 3.3.2.1 Wastewater Non-Grant Eligible Assets (Cont.)

Asset No.	Description	Date Acquired	Original Cost	Grant %	Estimated Grant Amount
	Collection				
7000001	Sewer Pipe Inventory-Gravity				
	6" PVC 1180 LF	6/1/1975	$58,017	75	$43,513
	6" C 650 LF	6/1/1975	$11,505	75	$8,629
	8" PVC 11780 LF	6/1/1975	$724,470	75	$543,353
	8" VC 8310 LF	6/1/1975	$122,711	75	$92,033
	8" AC 24,350 LF	6/1/1975	$536,531	75	$402,398
	8" VC 46,750 LF	6/1/1975	$1,034,344	75	$775,758
	10" PVC 1800 LF	6/1/1975	$123,300	75	$92,475
	10" VC 600 LF	6/1/1975	$9,860	75	$7,395
	10" C 5090 LF	6/1/1975	$125,596	75	$94,197
	12" AC 4030 LF	6/1/1975	$109,263	75	$81,947
	12" C 8030 LF	6/1/1975	$163,210	75	$122,408
	14" C 350 LF	6/1/1975	$10,789	75	$8,092
	15" C 1610 LF	6/1/1975	$59,590	75	$44,693
	18" C 240 LF	6/1/1975	$11,844	75	$8,883
	20 " C 60 LF	6/1/1975	$3,330	75	$2,498
	SUBTOTAL		**$3,104,360**		**$2,328,270**
	% of Collection Non-Grant				**25.00%**
7000002	Sewer Pipe Inventory-Force Main				
	4" Unk. 80 LF	6/1/1975	$920	75	$690
	6" PVC 8670 LF	6/1/1975	$227,588	75	$170,691
	12" DI 250 LF	6/1/1975	$8,070	75	$6,053
	SUBTOTAL		**$236,578**		**$177,434**
	% of Collection Non-Grant				**25.00%**
	TOTAL		**$6,199,729**		**$3,033,324**
	% of Wastewater Non-Grant				**51.07%**

3.3.3 Capacity Remaining

Plant. The plant, yard piping and associated equipment has capacity to provide wastewater service for all projected growth in the next 20 year period. There are 1840 current wastewater EDUs with 898 additional projected by the year 2023 totaling 2738 EDUs. The percentage "share" of the plant and wastewater pump systems is therefore (1/2738) of the plant equity value or 0.036523 % per EDU. For 898 new growth EDUs this is 32.80 % of the plant system value. This portion of the plant value should be considered potentially eligible for SDC reimbursement.

Land. The land associated with the wastewater system is for the plant site. It's EDU share is computed in the same manner as the plant and will be 32.80% of the value.

Pump Stations. The Filmore Pump Station has been extensively re-built and is assumed to have a service life for the duration of this study period. The North Street Pump Station is estimated to have a useful remaining life of only 5 years. The Johnson Creek Pump Station is at the end of its service life. It is recommended, in the Wastewater Master Plan, that it be rebuilt in a higher site due to deterioration, pump wear, generator problems and flood zone location. The inventory list predicts it to have 7 years life remaining. The South Jetty Pump Station is in excellent condition and is expected to remain in service through out the study period. All pump stations have adequate excess capacity for the projected growth within their remaining service lives.

Therefore, both the Filmore and South Jetty Pump Stations are fully available for future customer service. The North Street Pump Station has only 25% service life availability to new customers and the Johnson Creek Pump Station only 35% service life availability. The new user share of the pump stations would therefore be computed as follows:

Filmore & South Jetty (898/2738) = 32.80% of equity value for new customers. 0.328 x (1/898) = 0.0365256% per EDU.

North Street Pump Station 25% of 32.80% = 8.20% of equity value for new customers. 0.082 x (1/898) = 0.0091314% per EDU

Johnson Creek Pump Station 35% of 32.80% = 11.48% of equity value for new customers. 0.1148 x (1/898) = 0.0127840% per EDU

Collection System. The existing collection system will provide service for both existing and new customers. Because much of the anticipated growth will occur in areas not yet developed or served with existing wastewater lines, it is estimated that only 25% of the existing collection system should be considered available for future customers and therefore potentially eligible for SDC reimbursement. The remaining 75% is considered to be already utilized. This will result in a share for new customers of (.25) x (1/898) or 0.027840 % per EDU of the collection system value. The remaining capacity percentage is indicated for each type of wastewater infrastructure improvement in Table 3.3.5.1

3.3.4 Equity Portion

The equity portion of the wastewater system consists of the depreciated and non-grant funded, wastewater SDC eligible infrastructure value which represents excess capacity available for new customers and which is not currently being financed. This amount is divided by the number of anticipated EDUs which will be added during the study period. The result is the reimbursement portion of the wastewater SDC.

The City of Bandon has five outstanding loans for wastewater improvements. They are as follows:

- DEQ State Revolving Loan for wastewater improvements in the amount of $1,500,000 originated December 30, 1992. It has an interest rate of 3% and a 20-year term. At this time $893,287 of the principle remains to be paid. The equity is currently $ 606,713 or 40.45% of the loan.
- Loan for Wastewater Improvement for $630,000 originated April 28, 1993. It has an interest rate of 3% and a 20-year term. The outstanding principal is $ 375,160. The equity portion of the loan is $254,840 or 40.45%.
- Loan for Wastewater Improvement $198,000 originated May 19, 1993. It has an interest rate of 3% and a 20-year term. The outstanding principal is $117,907. The equity portion of the loan is $80,093 or 40.45%.
- General Obligation Bond for $1,500,000 originated June 1, 1993. It has an interest rate of 3% and a 20-year term. The outstanding principal is $859,000. The equity portion of the loan is $641,000 or 42.73%.

The loans were for the purpose of designing and upgrading the wastewater treatment plant and for lift station improvements. Presented below in Table 3.3.4.1 are the calculations for wastewater infrastructure equity percentages.

Table 3.3.4.1 Equity Percentage Calculations for Wastewater Infrastructure

Plant Replacement Cost	$11,666,287	**Pump Station Replacement Cost**	$159,638
Loan Amount	$3,630,000	Loan Amount	$0
Principal Paid	$1,502,553	Principal Paid	$0
Equity Total	$9,538,840	Equity Total	$159,638
% Equity	**81.76%**	**% Equity**	**100.00%**
Land Cost	$31,675	**Collection System Replacement Cost**	$10,110,415
Loan Amount	$0	Loan Amount	$198,000
Principal Paid	$0	Principal Paid	$80,093
Equity Total	$31,675	Equity Total	$9,992,508
% Equity	**100.00%**	**% Equity**	**98.83%**

3.3.5 Calculation of Wastewater SDC Reimbursement Fee

Table 3.3.5.1 titled Wastewater SDC Reimbursement Portion Determination presents the calculations required to compute the reimbursement portion of the wastewater SDC. The reimbursement portion of the EDU is computed by dividing the remaining equity value by the projected 898 new wastewater EDUs anticipated in Bandon during the study period. It includes the steps described in sub-section 3.3.1 through 3.3.4 above.

Table 3.3.5.1 Wastewater SDC Reimbursement Portion Determination

Description	Depreciated Current Value	Non-Grant Portion %	Remaining Non-Grant Value	Capacity Eligible %	Remaining Capacity Value	Equity Portion %	Remaining Equity Value	Reimb. Portion per EDU
Plant	$2,321,472	81.17	$1,884,339	31.88	$600,727	81.76	$491,155	$547
Filmore & S. Jetty	$44,207	100	$44,207	32.80	$14,500	100	$14,500	$16
North Street	$7,491	25	$1,873	8.20	$154	100	$154	$0
Johnson Creek	$17,623	100	$17,623	11.48	$2,023	100	$2,023	$2
Land	$31,675	100	$31,675	31.88	$10,098	100	$10,098	$11
Sewer Gravity	$5,010,388	25	$1,252,597	25.00	$313,149	98.83	$309,485	$345
Sewer Force Main	$381,833	25	$95,458	25.00	$23,865	98.83	$23,585	$26
Total	**$7,814,690**		**$3,327,772**		**$964,516**		**$851,000**	**$948**

3.4 Improvement Fee Methodology Development

3.4.1 Capital Improvement Plan

The capital improvement plan is the basis of the improvement fee portion of the wastewater SDC and was developed in the recently completed Wastewater System Master Plan. The cost estimates presented include four components: construction cost, engineering cost, contingency, and legal and administrative costs.

Twenty-two recommended wastewater system improvement projects have been developed in Section 7 of the Wastewater Master Plan. The estimated project costs presented in Table 3.4.1.1 following, are based on current construction expenses. These projects were determined to be necessary for the next 20 year period to accommodate growth and to correct existing system deficiencies. Descriptions and explanations for each project are included in Section 7 of the Wastewater Master Plan.

Table 3.4.1.1
Bandon Prioritized Projects with Wastewater SDC Eligible Costs

Proj. ID	Proj. Priority	Project Description	City Project	SDC Eligible	Private Project	Total Cost
A	1	Filmore Avenue PS Tide Gate	$2,400	$0	$0	$2,400
B	1	North Avenue PS Impellors	$4,000	$0	$0	$4,000
C	2	I/I Project # 2	$115,420	$49,500	$0	$164,920
D	2	Oregon Avenue Line Upsize	$0	$133,420	$0	$133,420
E	3	Johnson Creek PS Replacement	$265,000	$0	$0	$265,000
F	4	New Metering Recording System	$25,000	$0	$0	$25,000
G	5	I/I Project # 3	$163,635	$70,000	$0	$233,635
H	6	I/I Project # 4	$33,890	$14,500	$0	$48,390
I	6	I/I Project # 5	$27,735	$12,000	$0	$39,735
J	6	I/I Project # 6	$44,775	$20,000	$0	$64,775
K	6	I/I Project # 7	$48,620	$20,000	$0	$68,620
L	6	I/I Project # 8	$17,150	$7,350	$0	$24,500
M	7	New Influent Meter	$21,000	$0	$0	$21,000
N	7	North Avenue PS Replacement	$126,000	$0	$0	$126,000
O	8	Automatic RAS Control	$12,000	$0	$0	$12,000
P	9	Edison Avenue Line Upsize	$0	$56,500	$0	$56,500
Q	10	Basin 6 Television Inspection	$1,500	$0	$0	$1,500
		Recommended Proj. Subtotal	**$908,125**	**$383,270**	**$0**	**$1,291,395**
S	-	Ohio Avenue Sewer Exp.	$0	$420,000	$680,000	$1,100,000
T	-	Highway 101 S. Sewer Exp.	$0	$483,200	$916,800	$1,400,000
U	-	Allegany Avenue Sewer Exp.	$0	$0	$1,200,000	$1,200,000
V	-	South Bandon Sewer Expansion	$0	$0	$3,800,000	$3,800,000
W	-	Rosa Road Sewer Expansion	$0	$0	$1,100,000	$1,100,000
		Expansion Project Subtotal	**$0**	**$903,200**	**$7,696,800**	**$8,600,000**
		Total	**$908,125**	**$1,286,470**	**$7,696,800**	**$9,891,395**

System development charge eligible, improvement fee portion costs in the amount of $1,286,470 of capital improvement projects may be paid with funds collected for this purpose from new development. The fee for each new EDU should be established to collect the fee over a 20 year period.

Based on the projected growth rate for Bandon for the next 20 years, the City is expected to add 898 wastewater EDUs. Therefore, the EDU charge for improvement fee portion of the SDC can be no greater than ($1,286,470 / 898 EDUs) = $ 1,433 per EDU.

3.5 Recommended Charges

3.5.1 Calculation of Total Wastewater System Development Charge

The Wastewater System Development charge may include the reimbursement portion and the improvement portions computed in the section as shown below in Table 3.5.1.1.

Table 3.5.1.1 Maximum Wastewater System Development Charges

SDC Component	Total Amount	Charge per EDU
Reimbursement	$582,580	$948
Improvement	$1,286,470	$1,434
Total	**$1,869,050**	**$2,382**

3.5.2 Assessment Table

EDUs associated with each new service connection must be determined in order to charge new customer the appropriate SDC amount. A single family dwellings equals one EDU. However, in the case of commercial or industrial customers, the assessment becomes more difficult. A contribution of 85 gallons per capita per day has been established in the Wastewater Master Plan with an EDU representing 2.1 persons. Therefore an EDU is estimated to contribute 178.5 gallons of wastewater per day.

Wastewater EDU/daily average flow contribution assessment tables have been prepared for schools, workplaces, camps, motels, hotels, marinas, health care facilities, restaurants, recreational facilities, churches, residential units and other commercial activities. These table are widely available. A number of these tables were examined and a composite prepared for Bandon. As is typical for wastewater assessments, the independent variable is often based on the number of students, employees, seats or other criteria. While useful for determination of existing conditions, these criteria are not well suited for use in SDC determinations for future users.

Therefore, this composite EDU/daily average flow contribution assessment table was modified in terms of gross square footage, living units and beds. Conversion factors were determined. This was primarily accomplished from relating trip counts from the ITE Trip Count Manual for the same period of time where both gross area criteria and student, employee or seat factors were also listed for the same or similar facilities.

A modified wastewater EDU Assessment Table was prepared which used SDC appropriate criteria. The table was also streamlined to reduce ambiguity and to more closely reflect the anticipated type of growth in Bandon Listed below as Table 3.5.2.1 is the recommended basis of wastewater EDU assessments for new services.

Table 3.5.2.1 Wastewater EDU Assessments for New Services

WASTEWATER SERVICE CUSTOMER	EDU	GPD
Schools		
Day Care Center (No Meals Prepared) Per 1000 Sq. Ft.	0.30	53.6
School, No Cafeteria Or Showers Per 1000 Sq. Ft.	0.29	51.8
Add For Cafeteria Per 1000 Sq. Ft.	0.09	16.4
Add For Showers Per 1000 Sq. Ft.	0.06	10.3
Boarding Schools Per Bed	0.56	100.0
Workplace *		
Factory Per 1000 Sq. Ft.	0.07	12.0
Add for Factory (With Showers) Per 1000 Sq. Ft.	0.03	6.0
General Office Per 1000 Sq. Ft	0.07	12.0
Retail /Commercial Per 1000 Sq. Ft.	0.10	18.0
Auto Service Stations, Per Fueling Position.	1.01	180.0
Beauty Salon, Per Chair Per 1000 Sq. Ft.	3.74	667.0
Clinic, Per 1000 Sq. Ft.	1.12	200.0
Grocery Store Per 1000 Sq. Ft.	0.14	25.0
Camps, Motels, Hotels And Marinas		
Per RV Space	0.67	120.0
Summer Or Church Type Camps, Per Bed	0.42	75.0
Motels & Hotels, Per Room	0.48	85.0
Marinas, Per Boat Slip	0.11	20.0
Health Care Facilities		
Hospitals, Per Bed	1.40	250.0
Nursing Homes, Per Bed	0.84	150.0
Restaurants		
Quality Per 1000 Sq. Ft.	2.80	500.0
Fast Food Per 1000 Sq. Ft.	2.52	450.0
Fast Food , Without Rest Rooms Per 1000 Sq. Ft.	1.34	240.0
Bars And Cocktail Lounges (No Meals) Per 1000 Sq. Ft.	1.85	330.0
Recreational Facilities		
Theaters, Sporting Events, Per 1000 Sq. Ft.	0.98	175.0
Parks Per Acre	0.09	16.0
Health Or Country Club Per 1000 Sq. Ft.	0.48	86.0
Bowling Alley Per Lane	0.15	27.5
Arcade, Amusement Facility Per 1000 Sq. Ft.	1.12	200
Places of Worship		
Worship Service & Sunday (Sabbath) School Per 1000 Sq. Ft.	0.13	23.2
Add With Meal Preparation Facilities (Per 1000 Sq. Ft.)	0.09	16.4
Miscellaneous		
Boarding Kennel Per Run	0.14	25.0
Dog Grooming Per 1000 Sq. Ft.	3.74	667.0
Laundromats, Per Machine	2.24	400.0
Residential		
Rooming/Boarding House Per Unit	0.25	45.0
Domicile Per Housing Unit	1.00	178.5

DRAINAGE & FLOOD CONTROL

Section 4

4.1 General

Bandon's storm drainage system infrastructure consists of inlet and outlet drainage structures, piping, gates and ditches. However, only storm drainage piping as been inventoried, In the future, it is recommended that other drainage elements be inventoried as well. Only capital improvement items will be considered eligible for existing excess capacity reimbursement or for planned improvement fee collection to increase capacity.

For the purposes of this study, vehicles and tools associated with operations and maintenance have not been included as eligible System Development Charges (SDCs).

4.2 Projected Drainage Areas and EDUs

In order to establish storm drainage SDCs, it is necessary to determine an equitable basis to assess both the current and the projected future drainage service area users. The total cost of eligible reimbursement and improvement items will be divided by the projected new service drainage area users. Each new development will vary in size and the resulting storm drainage run-off amounts created will vary. Run-off is directly related with the impervious area created by new construction. Therefore, assessment for new development on the basis of new square footage constructed or paved is clearly the most rational method to calculate the system development charge.

The concept of equivalent dwelling units for storm drainage cost assessment was introduced in the 1999 Storm Drain Master Plan. In that report, the impervious surface methodology was linked to the concept of EDUs. The method assumed a typical residential unit (meaning a single family detached home) consisted of a 10,000 square foot lot divided into impervious area (roof tops, driveways, shed, etc.) and non-impervious surface areas (lawns, gardens, etc.). The typical impervious area was determined to be 2,500 SF of the 10,000 SF development. The value of 2,500 SF impervious area is the key parameter, representing one (1) EDU. A typical commercial development with parking was found to consist of 10,000 SF with 9,000 SF of impervious area. A typical industrial development with parking lot was determined to consist of a 20,000 SF lot with 15,000 SF of impervious area. Rounded to the nearest whole number, the commercial establishment would average 4 EDUs and the typical industrial facility would average 6 EDUs.

The Storm Drain Master Plan concluded that it is acceptable to assume that a residential account is equal to one EDU, but that it is not acceptable to assume a typical value for industrial, commercial or institutional accounts. For new development, each commercial,

muti-family, commercial or institutional user should be assigned EDUs based upon plan review by the City.

The Master Plan also assumed that each existing and new non-residential customer would be assessed at least two EDUs and that each developed acre will be assessed at least 4.4 storm EDUs.

The storm drainage EDU projections developed in the Storm Drain Master Plan were presented as Table 3.4.5 in that report. This information is presented below in Table 4.2.1. The year 2023 projection has been added based on the projection trend of the original table between the years 2000 and 2020.

Table 4.2.1 Storm Drainage EDU Projections

YEAR	RESIDENTIAL EDUs	NON-RESIDENTIAL EDUs	TOTAL EDUs
1999	1030	494	1524
2000	1046	507	1553
2003	1094	547	1641
2005	1126	573	1699
2010	1209	640	1849
2015	1297	705	2002
2020	1390	771	2161
2023	1450	802	2252

Other useful projections may be made regarding developed area and impervious drainage area, based upon the Storm Drain Master Plan. These are shown below in Table 4.2.2.

Table 4.2.2 Estimate of Residential and Non Residential Acreage

	RESIDENTIAL AREA		NON-RES. AREA		TOTAL	
YEAR	DEV.	IMPERV.	DEV.	IMPERV.	DEV.	IMPERV.
1999	236	59	125	28	361	87
2000	240	60	128	29	368	89
2003	251	63	138	31	389	94
2005	258	65	145	33	403	98
2010	278	69	162	37	439	106
2015	298	74	178	40	476	115
2020	319	80	195	44	514	124
2023	333	83	203	46	535	129

4.3 Reimbursement Fee Methodology Development

4.3.1 Inventory and Depreciated Value

An inventory of the Bandon drainage system's existing capital improvements and assets considered eligible for reimbursement is presented in this section. Bandon's data base

management system was used as a source, identified as: "Table Lists - Life Expectancy and Deprecation, page 3". It is dated August 22, 2003. The document lists assets with a cash cost of greater than $5,000. This tabular information is included in Appendix D. This document includes storm drain pipe as asset no. 7500001.

Information was also obtained from the data records of Dyer Partnership for Bandon, titled "Water and Storm Inventory", updated June 30, 2002 . It represents the information source for Bandon's data base described above, specifically for Asset Numbers 7500001 Storm Drain Pipe Inventory. This data is included in Appendix D

A tabulation of assets which qualify as capital improvement assets are presented below as Table 4.3.1.1, Storm Drainage SDC Eligible Assets. The tabulation includes Bandon's asset number for the item, a description, date of acquisition, life expectancy, age, replacement cost and current depreciated valuation.

The asset values provided by the City are based upon the depreciated replacement cost of the item in 2002 based on a life expectancy of 40 years for asbestos cement (AC) , 50 years for cast iron (CI) and unknown types (UNK), 15 years for corrugated metal pipe (CMP) and 60 years for concrete (CONC), reinforced concrete (RCP) and high density polyethylene (HDPE).

Table 4.3.1.1 Storm Drainage SDC Eligible Assets

Asset No.	Description	Date Acquired	Life Yrs.	Age Yrs.	2002 ENR Index *	2002 Replace Cost	Cur. Replace. Cost	Current Value
7500001	4" PVC	1992	60	11	6532	$5,413	$5,586	$4,562
	4" UNK	1977	50	26	6532	$9,758	$10,070	$4,834
	6" AC	1987	40	16	6532	$911	$940	$564
	6" CI	1982	50	21	6532	$4,870	$5,026	$2,915
	6" CMP	1997	15	6	6532	$4,594	$4,741	$2,845
	6" CONC	1972	60	31	6532	$5,329	$5,500	$2,658
	6" HDPE	1997	60	6	6532	$2,027	$2,092	$1,883
	6" PVC	1992	60	11	6532	$11,767	$12,144	$9,917
	6" UNK	1977	50	26	6532	$25,133	$25,937	$12,450
	8" AC	1977	40	26	6532	$2,283	$2,356	$825
	8" CI	1982	50	21	6532	$7,159	$7,388	$4,285
	8" CMP	1997	15	6	6532	$20,877	$21,545	$12,927
	8" CONC	1972	60	31	6532	$25,233	$26,040	$12,586
	8" FR. DRAIN	1982	30	21	6532	$15,705	$16,208	$4,862
	8" HDPE	1997	60	6	6532	$14,754	$15,226	$13,703
	8" PVC	1992	60	11	6532	$52,467	$54,146	$44,219
	8" UNK	1977	50	26	6532	$76,067	$78,501	$37,680
	10" AC	1977	40	26	6532	$5,385	$5,557	$1,945
	10" CMP	1997	15	6	6532	$4,436	$4,578	$2,747
	10" CONC	1972	60	31	6532	$15,587	$16,086	$7,775
	10" HDPE	1997	60	6	6532	$19,021	$19,630	$17,667
	10" PVC	1992	60	11	6532	$72,557	$74,879	$61,151

Table 4.3.1.1 Storm Drainage SDC Eligible Assets (Cont.)

Asset No.	Description	Date Acquired	Life Yrs.	Age Yrs.	2002 ENR Index *	2002 Replace Cost	Cur. Replace. Cost	Current Value
	10" UNK	1977	50	26	6532	$66,330	$68,452	$32,857
	12" CI	1982	50	21	6532	$6,169	$6,366	$3,693
	12" CMP	1997	15	6	6532	$183,954	$189,840	$113,904
	12" CONC	1972	60	31	6532	$40,083	$41,366	$19,993
	12 HDPE	1997	60	6	6532	$152,406	$157,282	$141,554
	12 PVC	1992	60	11	6532	$171,380	$176,864	$144,439
	12" UNK	1977	50	26	6532	$279,282	$288,218	$138,345
	15" CMP	1997	15	6	6532	$25,990	$26,822	$16,093
	15" HDPE	1997	60	6	6532	$179,633	$185,381	$166,843
	15" PVC	1992	60	11	6532	$7,552	$7,794	$6,365
	18" CI	1982	50	21	6532	$6,960	$7,183	$4,166
	18" CMP	1997	15	6	6532	$205,171	$211,736	$127,041
	18" CONC	1972	60	31	6532	$61,920	$63,901	$30,886
	18" HDPE	1997	60	6	6532	$127,344	$131,419	$118,277
	18" PVC	1992	60	11	6532	$3,888	$4,012	$3,277
	18" RCP	1982	60	21	6532	$2,477	$2,556	$1,662
	18" UNK	1977	50	26	6532	$136,608	$140,979	$67,670
	21" UNK	1977	50	26	6532	$4,388	$4,528	$2,174
	24" CMP	1997	15	6	6532	$449,285	$463,660	$278,196
	24" CONC	1972	60	31	6532	$183,015	$188,871	$91,288
	24" HDPE	1997	60	6	6532	$25,149	$25,954	$23,358
	24" PVC	1992	60	11	6532	$26,458	$27,305	$22,299
	24" UNK	1977	50	26	6532	$106,726	$110,141	$52,868
	30" CMP	1997	15	6	6532	$72,225	$74,536	$44,722
	30" PVC	1992	60	11	6532	$8,030	$8,287	$6,768
	30" UNK	1977	50	26	6532	$63,900	$65,945	$31,653
	36" CMP	1997	15	6	6532	$435,915	$449,863	$269,918
	36" CONC	1972	60	31	6532	$10,780	$11,125	$5,377
	36" UNK	1977	50	26	6532	$109,554	$113,059	$54,268
	48" CMP	1997	15	6	6532	$252,593	$260,675	$156,405
	96" CMP	1997	15	6	6532	$44,700	$46,130	$27,678
	TOTALS					$3,851,198	$3,974,422	$2,469,033

*Current ENR Index (9/15/03) = 6741

4.3.2 Grant Funding Portion

There are no known portions of the storm drainage infrastructure which were paid for by Federal or State funds through grants. Therefore, no grant funding percentage reductions are made in Table 4.3.5.1.

4.3.3 Capacity Remaining

The existing 1641 EDUs have an investment of $3,974,422 in publicly owned drainage systems in current replacement cost value at $2,422 per EDU. The 611 new EDUs are projected to require $879,215 as their portion of public storm drainage improvements as determined in Table 4.4.1.1 latter in this report. This is a share of $1,439 per EDU, in current costs, required for expansion of the system so that the new users may be serviced by the existing drainage system. If the assumption is made that the incremental cost of drainage infrastructure per Bandon EDU is correctly $1,439, then existing users have provided the difference between $2,422 and $1,439 as additional capacity on behalf of future users. This hypothetical amount is $983 or 40.6% of the existing EDU infrastructure share value. Because the existing system which the new users are "buying into" is not new, a reduced buy in value should be computed. However, the significant parameter developed in the above calculation is that 40.6% of the existing system is available and may be utilized by the new EDUs. This is the recommended capacity remaining percentage value for subsequent calculations.

4.3.4 Equity Portion

The equity portion of the storm drainage system consists of the depreciated and non-grant funded, SDC eligible infrastructure value which represents excess capacity available for new customers and which is not currently being financed. This amount is divided by the number of anticipated EDUs which will be added to the system during the study period. The result is the reimbursement portion of the storm drainage SDC.

The only outstanding debt associated with storm drainage appears to be Fund # 633 and 634 which are related to Street and Storm Drains 2000 and 2001 Limited Improvement Districts (L.I.D.) These L.I.D. assists are not currently inventoried. For purposes of this report, equity is considered to be 100%.

4.3.5 Calculation of Storm Drainage SDC Reimbursement Fee

Table 4.3.5.1 titled Storm Drainage SDC Reimbursement Portion Determination presents the calculations required to compute the reimbursement portion of the storm drainage SDC. The reimbursement portion of the EDU is computed by dividing the remaining equity value by the projected 611 new storm drain EDUs anticipated in Bandon during the study period. It includes the steps described in sub-section 4.3.1 through 4.3.4 above.

Table 4.3.5.1 Storm Drainage SDC Reimbursement Portion Determination

Description	Depreciated Current Value	Non-Grant Portion %	Remaining Non-Grant Value	Capacity Eligible %	Remaining Capacity Value	Equity Portion %	Remaining Equity Value	Reimbursement Portion per EDU
Piping	$2,469,033	100	$2,469,033	40.60	$1,002,427	100	$1,002,427	$1,641

4.4 Improvement Fee Methodology Development

4.4.1 Capital Improvement Plan

The capital improvement plan is the basis of the improvement fee portion of the storm drainage SDC and was developed in the 1999 Storm Drain Master Plan. The cost estimates include construction cost, engineering cost, contingency, and legal and administrative costs.

Twenty-five recommended storm drainage system improvement projects have been developed in Section 6 of the Master Plan. The estimated project costs are based on 1999 construction expenses. These projects were determined to be necessary to accommodate growth and to correct existing system deficiencies. Descriptions and explanations for each project are included in Section 6 of the Storm Drain Master Plan. The 1999 project costs have been updated to 2003 costs in Table 4.4.1.1 below.

Table 4.4.1.1
Capital Improvement Projects with Storm Drainage SDC Eligible Costs

PROJECT NUMBER	CITY PROJECT	SDC ELIGIBLE	PRIVATE PROJECT	TOTAL PROJECT COST
1B.1	$0	$0	$28,900	$28,900
2A.1	$0	$0	$95,975	$95,975
3A.1	$0	$13,451	$0	$13,451
3A.2	$0	$0	$72,511	$72,511
3A.3	$32,873	$0	$0	$32,873
3B.1	$32,148	$8,037	$0	$40,185
3B.2	$26,120	$6,474	$0	$32,594
3B.3	$25,115	$6,251	$0	$31,366
3C.1	$61,393	$15,404	$0	$76,798
3C.2	$11,386	$0	$0	$11,386
5A.1	$0	$0	$122,419	$122,419
6A.1	$0	$415,994	$207,998	$623,992
6A.2	$0	$94,202	$115,819	$210,021
6A.3	$0	$0	$95,271	$95,271
6A.4	$25,395	$0	$0	$25,395
6B.1	$0	$0	$166,778	$166,778
6C.1	$0	$115,810	$57,040	$172,850
6E.1	$0	$0	$72,857	$72,857
7A.1	$0	$41,178	$0	$41,178
7B.1	$0	$31,143	$0	$31,143
7C.1	$0	$15,739	$0	$15,739
9B.1	$0	$0	$37,126	$37,126
9B.2	$0	$115,531	$0	$115,531
9B.3	$0	$0	$43,003	$43,003
9C.1	$19,177	$0	$0	$19,177
Totals	**$233,608**	**$879,215**	**$1,115,697**	**$2,228,521**

System development charge eligible, improvement fee portion costs in the amount of $879,215 of capital improvement projects may be paid with funds collected for this purpose from new development. The fee for each new EDU should be established to collect the fee over a 20 year period.

Based on the projected growth rate for Bandon for the next 20 years, the City is expected to add 611 storm drain EDUs. Therefore, the EDU charge for improvement fee portion of the SDC can be no greater than ($879,215 / 611) = $ 1,439 per EDU.

4.5 Recommended Charges

4.5.1 Calculation of Total Storm Drainage System Development Charge

The total Storm Drainage System Development charge consists of the summation of the reimbursement portion and the improvement portions and is shown below in Table 4.5.1.1.

Table 4.5.1.1 Maximum Storm Drainage System Development Charges

SDC Component	Total Amount	Charge per EDU
Reimbursement	$1,002,427	$1,641
Improvement	$879,215	$ 1,439
Total	**$1,881,642**	**$3,080**

4.5.2 Assessment Table

One new single family dwelling development equals one storm drainage EDU. However, in the case of commercial or industrial customers including multi-family developments, the assessment intention is to estimate the amount of storm drainage contribution which will occur in terms of equivalent dwelling units. An impervious area of 2,500 square feet has been established in the Storm Drain Master Plan as representing one EDU. The impervious areas for new development includes driveways, parking areas, sidewalks, roofs and any asphalt or concrete paved areas. Pervious areas include lawns, unimproved areas and landscaped areas (if able to freely drain into ground). Gravel parking and drive areas should be considered to be 60% impervious. Compacted but non-surfaced dirt roadways should be considered 40% impervious. The determination of the various types of surface areas should be submitted by the developer and confirmed during plan review by the City. Listed below in Table 4.5.2.1 are the recommended storm drainage EDU assessment criteria for Bandon.

Table 4.5.2.1 Storm Drainage EDU Assessment Criteria for New Development

Assessment Item	Area SF	EDU
Single Family Dwelling	---	1.0
Commercial, Industrial, Institutional		
Impervious Areas, roofs, pavements, sidewalks, etc.	2500	1.0
Gravel Parking/Roadway/Storage	2500	0.6
Compacted Dirt Roadway/Parking/Storage	2500	0.4

TRANSPORTATION

Section 5

5.1 General

Bandon's transportation system infrastructure consists of paved and gravel roads and streets, sidewalks, bike paths and walking trails. Drainage structures associated with transportation infrastructure have been addressed separately in Section 4 of this report. Only capital improvement items will be considered eligible for existing excess capacity reimbursement or for planned improvement fee collection to increase capacity.

For the purposes of this study, vehicles and tools associated with operations and maintenance have not been included as eligible System Development Charges (SDCs).

5.2 Projected Trip Counts and EDU Determination

In order to establish transportation SDCs, it is necessary to determine an equitable basis to assess costs for both the current and the projected future transportation system users. The total cost of eligible SDC reimbursement and improvement items will be divided by the projected new service demand units to establish a cost per transportation demand unit.

The transportation demand unit selected is a peak hour trip count. Each type of development, ranging from new single family dwellings to schools to industrial plants have an associated peak hour trip count representing the volume of traffic created by the development. Over the years, the Institute of Transportation Engineers have complied data and performed statistical analysis to determine the average number of trips to be expected from each type of development. Thousand of studies have been conducted in which traffic counting devices were installed at the various types of developments. The results are published in a book titled "Trip Generation" which is periodically updated. The trip counts are listed for average week days, week day peak hour in the morning or afternoon, Saturdays and Sundays and for peak hour of generator. Several charts are published for each type of establishment relating the average vehicle trip ends to different independent variables. For example, a day care center has published charts relating trip ends to number of employees, square footage of gross area and number of students for each time period noted above. The information is presented in the form of both fitted curve equations , fitted curves, average curves and actual data points for each study performed. If several independent variables are known for a facility in question, the charts may be compared and the most appropriate chart selected or the results of several charts may be averaged.

The concept of equivalent dwelling unit (EDU) may be introduced by relating all other types of development as multiples of the trip count for a single family detached dwelling.

The number of single family detached residential dwellings is estimated based on the water services accounts. For commercial users, an inventory was made of the various Bandon businesses and institutions. For each non-residential establishment an estimate was made regarding characteristics associated with it that allow assignment of a trip count number from the ITE Trip Count Manual. These assignments were made in conjunction with the City of Bandon Staff. These criteria include gross square footage, number of employees, number of seats (in restaurants, for example) and other parameters which allow reasonable estimates of trip counts. The trip counts are for peak hour of the facility under consideration Monday through Saturday. Presented in Table 5.2.1 on the following page are the general categories of businesses and institutions located in Bandon and estimated trip counts for each category.

Based on the information presented in Table 5.2.1 discussed above, projections of future trip counts were made, assuming an increase of 1.76% per year for the next 20 year period in each category. The projections are presented in Table 5.2.2, beginning with 2003, in five year increments following Table 5.2.1. The calculations indicate 13,456 current peak hour trip ends and 19,075 year 2023 peak hour trip ends. Note that a single family detached dwelling has a peak hour trip count of 1.01. For purposes of this program we will establish a single family detached dwelling as the index EDU with a trip count rounded to 1.00. This will allow trip counts to also represent EDUs. Therefore, an increase of 5,619 peak hour trip ends or transportation EDUs will occur by 2023.

Table 5.2.1 Estimated Current Residential, Commercial and Institutional Trip Counts

Type of User / Criteria, ITE Page Ref.	Area SF x 1000	Units Acres Windows Seats Berths	No. of Employees	Peak Hour ITE Rate	Peak Hr. Trip Ends
Apartment Dwelling - Post 1973, 324		111.00		0.63	69.93
Apparal Store Gross Area SF, 1446	1.75			3.77	6.60
Auto Care Employees, 1332			32	1.43	45.76
Auto Sales Employees, 1332			4	0.84	3.36
Aviation Employees, 37			4	1.96	7.84
Bank, Drive-in Windows Drive-in Windows, 1510		5.00		48.70	243.50
Bank, Walk-in Employees, 1475			19	2.83	53.77
Church Gross Area SF, 819	125.50			3.25	407.88
Corp. Office Employees, 963			38	0.44	16.72
Day Care Employees, UpD 5			5	5.22	26.10
Drinking Establishment Gross Area SF, 1326	9.00			15.49	139.41
Furniture store Gross Area SF, 1452	0.20			0.47	0.09
Golf Course Holes, 668		9.00		4.60	41.40
Government Offices Employees, 995			43	1.91	82.13
Hardware/Paint Employees, 1153			36	5.42	195.12
Health Club Gross Area SF, 747	2.00			4.30	8.60
Hospital Employees, 891			150	0.33	49.50
Industrial, General Light Employees, 87			121	0.51	61.71
Industrial, General Light Gross Area SF, 96	13.00			1.08	14.04
Industrial, General Heavy Employees, 114			20	0.40	8.00
Lodge/Fraternal Members, 883		150.00		0.03	4.50
Manufacturing Employees, 154			24	0.40	9.60
Marina Berths, 643		42.00		0.27	11.34
Medical Clinic Employees, 934			58	0.90	52.20
Medical Dental Office Employees, 982			14	0.88	12.32

Table 5.2.1 Estimated Current Residential, Commercial and Institutional Trip Counts (Cont.)

Type of User / Criteria, ITE Page Ref.	Area SF x 1000	Units Acres Windows Seats Berths	No. of Employees	Peak Hour ITE Rate	Peak Hr. Trip Ends
Mini-warehouse Storage Units, 230		215.00		0.04	8.60
Motel Employees, 565			14	1.04	14.56
Motel Occupied rooms, 556		292.00		0.74	216.08
Nursery Garden Center Employees, 1181			17	2.59	44.03
Nursing Home Beds, 926		108.00		0.37	39.96
Office, General <25 Emp. Employees, 941			119	0.92	109.48
Park, RV Camp Sites, 612		45.00		0.94	42.30
Post Office Employees, 1030			12	1.65	19.80
Recreational Community Center Gross Area SF, 751	2.50			2.61	6.53
Rental Townhouse Units, 379		2.00		0.73	1.46
Restaurant, Drive Thru Gross Area SF, UpD 111	2.62			56.61	148.32
Restaurant, Hgh Turnover Gross Area SF, UpD 71	38.35			26.66	1022.41
Restaurant, Quality Gross Area SF, UpD 47	6.25			10.82	67.63
Schools, Public Students, 778			800	0.30	240.00
Schools, Other or Private Students, 776			10	0.93	9.30
Service Station Fuel Positions, UpD 130		20.00		16.00	320.00
Single Family Detached Housing Dwellings, 263		1384.00		1.00	1384.00
Specialty Retail Store Employees, 1132			280	23.10	6299.20
Supermarket/Grocery Store Gross Area SF, 1389	65.60			15.33	1870.26
Theater, Live Seats, 676		250.00		0.02	5.00
Trucking or Transportation Acres, 71		1.00		7.74	7.74
Trucking or Transportation Employees, 61			12	0.66	7.92
Bandon City Total Peak Hour Trip Count					**13456**

Table 5.2.2 Projected Residential, Commercial and Institutional Trip Counts

	Peak Hr.Trip Ends				
Type of User	**2003**	**2008**	**2013**	**2018**	**2023**
Apartment	70	76	83	91	99
Apparal Store	7	7	8	9	9
Auto Care	46	50	54	59	65
Auto Sales	3	4	4	4	5
Aviation	8	9	9	10	11
Bank, Drive-in Windows	244	266	290	316	345
Bank, Walk-in	54	59	64	70	76
Church	408	445	486	530	578
Corp. Office	17	18	20	22	24
Day Care	26	28	31	34	37
Drinking Establishment	139	152	166	181	198
Furniture store	0	0	0	0	0
Golf Course	41	45	49	54	59
Government Offices	82	90	98	107	116
Hardware/Paint	195	213	232	253	277
Health Club	9	9	10	11	12
Hospital	50	54	59	64	70
Industrial, General Light	76	83	90	98	107
Industrial, General Heavy	8	9	10	10	11
Lodge/Fraternal	5	5	5	6	6
Manufacturing	10	10	11	12	14
Marina	11	12	14	15	16
Medical Clinic	52	57	62	68	74
Medical Dental Office	12	13	15	16	17
Mini-warehouse Storage	9	9	10	11	12
Motel	231	252	275	300	327
Nursery Garden Center	44	48	52	57	62
Nursing Home	40	44	48	52	57
Office, General <25 Emp.	109	119	130	142	155
Park, RV Camp	42	46	50	55	60
Post Office	20	22	24	26	28
Recreational Community Center	7	7	8	8	9
Rental Townhouse	1	2	2	2	2
Restaurant, Drive Thru	148	162	177	193	210
Restaurant, Hgh Turnover	1022	1116	1217	1328	1449
Restaurant, Quality	68	74	81	88	96
Schools, Public	240	262	286	312	340
Schools, Other or Private	9	10	11	12	13
Service Station	320	349	381	416	454
Single Family Detached Housing	1384	1510	1648	1798	1962
Specialty Retail Store	6299	6873	7500	8184	8930
Supermarket/Grocery Store	1870	2041	2227	2430	2651
Theater, Live	5	5	6	6	7
Trucking or Transportation	16	17	19	20	22
Total Peak Hour Trip Counts	**13456**	**14683**	**16021**	**17481**	**19075**

5.3 Reimbursement Fee Methodology Development

5.3.1 Inventory and Depreciated Value

An inventory of the Bandon transportation capital improvements and assets considered eligible for reimbursement is presented in this section. Information was generated through Bandon's data base management system and is identified as: "Table Lists - Life Expectancy and Deprecation, page 3". It is dated August 20, 2003. The document includes assets 5000001 through 5000007. This tabular information is included previously in Appendix D.

Another source of information was a report titled "Road and Bridge Report". This document was prepared or updated June 30, 2002 by Valuations Northwest, Inc. and represents the information source for Bandon's data base management system described above. This data is included in Appendix E

Using the above referenced data sources, a tabulation of assets which qualify as capital improvement assets are presented below as Table 5.3.1.1, Transportation SDC Eligible Assets. The tabulation of assets includes Bandon's asset number for the item, a description, date of acquisition, life expectancy, age, original cost, replacement cost and current depreciated valuation. The life expectancy of items 5000003 Street - paved, not City standard and 5000004 Gravel Streets graded and drained were modified from the data base records provided by the City. These assets remain in useful service and were valued at 1/2 their original cost and have out lived their estimated useful lives of 12 and 20 years respectively. Therefore, the life expectancy was modified in this report to 25 and 32 years respectively in order to conform to the approximate current value which the City believes they retain.

Table 5.3.1.1 Transportation SDC Eligible Assets

Asset No.	Description	Date Acquired	Life Yrs.	Age Yrs.	ENR Index	Original Cost	Cur. Replace. Cost	Current Value
5000001	Street - 2 Lane, City Standard	1998	20	5	5895	$340,000	$388,794	$291,595
5000002	Street - paved 2 Lane	1986	20	17	4303	$42,708,869	$66,906,922	$10,036,038
5000003	Street - paved not City Std.	1986	25	17	4303	$935,000	$1,464,754	$468,721
5000004	Gravel Streets graded & drained	1980	32	23	3198	$13,155,780	$27,730,805	$7,799,289
5000005	Paving upgrade/gravel streets	2002	12	1	6605	$511,598	$522,132	$478,621
5000006	11th St. SW sidewalks	2002	20	1	6605	$12,381	$12,636	$12,004
5000007	Paving upgrade/gravel streets	2003	12	0	6741	$613,922	$613,922	$613,922
	TOTALS					$58,277,550	$97,639,964	$19,700,191

5.3.2 Grant Funding Portion

Federal or State funded portions of projects provided through grants are not eligible for system development charge reimbursement. Portions of the inventoried transportation improvements paid for with grant funding are not recorded. Typical street programs in the past had little funding from outside sources. It was determined however, through the

City, that up to 10% grant funding may have been received in the past, leaving 90% as non-grant funded.

5.3.3 Capacity Remaining

In the case of Bandon, the average remaining capacity of the existing transportation system which may be utilized by new development is estimated to be 20%

5.3.4 Equity Portion

The equity portion of the transportation system consists of the depreciated and non-grant funded, transportation SDC eligible infrastructure value which represents excess capacity available for new development and which is not currently being financed. This amount is divided by the number of anticipated trip counts which will be added to the system during the study period. The result is the reimbursement portion of the transportation SDC.

The City of Bandon has one loan is for Local Option Street Tax in the amount of $1,250,000 and was originated December 4, 2002. It has an interest rate of 3% and a 10-year term. The outstanding principal is $1,250,000. Therefore, the equity portion of the loan is $0. Presented below in Table 5.3.4.1 are the calculations for transportation infrastructure equity percentages.

Table 5.3.4.1 Equity Percentage Calculations for Transportation Infrastructure

SDC Eligible Assets	$19,700,191
Loan Amount	$1,250,000
Principal Paid	$0
Equity Total	$18,450,191
% Equity	93.65%

5.3.5 Calculation of Transportation SDC Reimbursement Fee

Table 5.3.5.1 titled Transportation SDC Reimbursement Portion Determination presents the calculations required to compute the reimbursement portion of the transportation SDC. The reimbursement portion of the EDU is computed by dividing the remaining equity value by the projected 5,480 new traffic EDUs anticipated in Bandon during the study period. It includes the steps described in sub-section 5.3.1 through 5.3.4 above.

Table 5.3.5.1 Transportation SDC Reimbursement Portion Determination

Description	2	3	4	5	6	7	8	9
Street - 2 Lane, City Standard	$291,595	90.0%	$262,436	20.0%	$52,487	93.65%	$49,154	$9
Street - paved 2 Lane	$10,036,038	90.0%	$9,032,434	20.0%	$1,806,487	93.65%	$1,691,775	$309
Street - paved not City Std.	$468,721	90.0%	$421,849	20.0%	$84,370	93.65%	$79,012	$14
Gravel Streets graded & drained	$7,799,289	90.0%	$7,019,360	20.0%	$1,403,872	93.65%	$1,314,726	$240
Paving upgrade/gravel streets	$478,621	90.0%	$430,759	20.0%	$86,152	93.65%	$80,681	$15
11th St. SW sidewalks	$12,004	90.0%	$10,804	20.0%	$2,161	93.65%	$2,024	$0
Paving upgrade/gravel streets	$613,922	90.0%	$552,530	20.0%	$110,506	93.65%	$103,489	$19
TOTALS	$19,700,191		$17,730,172		$3,546,034		$3,320,861	$606

Column 2	Depreciated Current Value
Column 3	Non-Grant Portion %
Column 4	Remaining Non-Grant Value
Column 5	Capacity Eligible %
Column 6	Remaining Capacity Value
Column 7	Equity Portion %
Column 8	Remaining Equity Value
Column 9	Reimbursement Portion per Traffic EDU

System Development Charge, reimbursement fee portion, eligible costs in the amount of $3,320,861 of existing capital improvement projects may be paid with funds collected for this purpose from new development. The reimbursement fee for each traffic EDU is $606. The fee for each new transportation EDU should be established to collect the fee over a 20 year period.

5.4 Improvement Fee Methodology Development

5.4.1 Capital Improvement Plan

The Capital Improvement Plan (CIP) is the basis of the improvement fee portion of the transportation SDC and was developed in the December 2000 Bandon Transportation System Plan, Volume 6, Appendix A titled "Capital Improvement and Costs".

Thirty-two recommended street system improvements and five intersection improvements were presented in Appendix A. Two of the street system projects (projects 9 and 2) and one of the intersection projects (project 1) have already been completed and are not included in the following tabulation. In addition, a ADA sidewalk project has been added. The estimated project costs presented are based on 2000 construction expenses. These projects were determined to be necessary to accommodate growth and to correct existing system deficiencies.

Based on an assumed annual growth rate of 1.76%, the number of trip counts and corresponding traffic EDUs in 2023 should be 41.48% higher than in 2003. This assumes that development occurs consistently in all commercial, industrial, institutional and

residential categories with respect to current development distribution. Based on this reasoning, any improvement would have a minimum SDC eligibility of 41.48% if all transportation users benefited equally. However, most of the improvements are proposed to address additional traffic. The 2000 project costs have been updated to 2003 costs in Table 5.4.1.1 below.

Table 5.4.1.1 Transportation Capital Improvement Projects

No.	Street System Improvements	Private	Public Cost	SDC %	SDC Elig.	Grant
10	7th St.: Madison to Beach Loop		$156,033	41.48%	$64,722	
11	Beach Loop Drive: 7th St. to 11th St.		$344,674	60.00%	$206,804	
12	Beach Loop Drive: 11th St. to Face Rock Dr.		$727,671	60.00%	$436,603	
36	Fillmore Ave.: Hwy 101 to 11th St.		URA			$869,350
1	Hwy 101: North UGB south to 13th		ODOT			$20,000
6	Edison Ave.: 1st St. to Jetty Road		$78,460	41.48%	$32,545	
7	Jetty Rd.: Edison Ave. to Curve		$466,854	41.48%	$193,651	
13	Beach Loop Dr.: Face Rock to Strawberry Dr.		$286,663	60.00%	$171,998	
14	Beach Loop Dr.: Strawberry to Caryll Ct.		$162,636	60.00%	$97,582	
15	Beach Loop Dr.: Caryll Ct. to Seabird Dr.		$448,679	60.00%	$269,207	
21	11th St.: Jackson Ave. to Franklin Ave.		$309,607	60.00%	$185,764	
22	11th St.: Franklin Ave. to Bandon Ave.		$453,800	60.00%	$272,280	
26	11th St.: Elmira Ave. to Fillmore Ave.		$84,568	60.00%	$50,741	
27	11th St.: Fillmore Ave. to Harlem Ave.		$490,156	60.00%	$294,094	
28	11th St.: Harlem Ave. to Hospital		$237,888	41.48%	$98,676	
30	4th/Ocean/Seventh: Edison to Madison		$749,053	60.00%	$449,432	
3	Highway 42S: Hwy 101 to UGB		ODOT			$133,890
4	Riverside Dr.: North UGB to 1st St.		$921,190	41.48%	$382,110	
16	Beach Loop Dr.: Seabird Dr. to UGB		$671,982	60.00%	$403,189	
17	Seabird Dr.: Beach Loop to Hwy. 101		$763,551	41.48%	$316,721	
18	Face Rock Dr./20th: Beach Loop to Hwy 101	$704,256	$154,593	75.00%	$115,945	
19	20th St.: Hwy 101 to Rosa Rd.	$357,114	$78,391	75.00%	$58,793	
29	Edison Ave.: Jetty Rd. to Fourth St.		$101,861	41.48%	$42,252	
31	Franklin Ave.: 4th St. to 11th St.		$429,093	75.00%	$321,820	
32	Franklin Ave.: 11th St. to 12th Court		$131,844	75.00%	$98,883	
33	Franklin Ave.: 12th Court to Seabird Dr.	$2,069,427	$454,265	75.00%	$340,699	
37	Rosa Rd.: 11th St. to 20th St.		$468,400	75.00%	$351,300	
38	Bill Creek Rd.: 11th St. to UGB		$226,221	75.00%	$169,666	
39	Rosa Rd.: 20th St. to Seabird Dr.	$897,013	$196,905	75.00%	$147,679	
40	Seabird Dr.: Hwy. 101 to Rosa Rd.	$475,545	$104,388	75.00%	$78,291	
	Retrofit sidewalks ADA		$75,000	41.48%	$31,110	
	Intersection Improvements					
2	Hwy 101 / 20th St.		$120,000	75.00%	$90,000	
3	Hwy 101 / Seabird Dr.		$500,000	75.00%	$375,000	
4	Seabird Dr. / Beach Loop Dr.		$50,000	75.00%	$37,500	
5	Beach Loop Dr. / Face Rock Dr.		$50,000	75.00%	$37,500	
	TOTALS	$4,503,355	$10,494,426	59.30%	$6,222,556	$1,023,240

System development charge eligible, improvement fee portion costs in the amount of $6,22,556 of capital improvement projects may be paid with funds collected for this purpose from new development. The fee for each new trip count should be established to collect the fee over a 20 year period.

Based on the projected growth rate for Bandon for the next 20 years, the City is expected to add 5,480 trip counts corresponding the same number of traffic EDUs. Therefore, the improvement fee portion of the SDC can be no greater than ($6,222,556 / 5,480) = $1,136.

5.5 Recommended Charges

5.5.1 Calculation of Total Transportation System Development Charge

The total Transportation System Development Charge consists of the summation of the reimbursement portion and the improvement portions and is shown below in Table 5.5.1

Table 5.5.1.1 Maximum Transportation System Development Charges

SDC Component	Total Amount	Charge per EDU
Reimbursement	$2,705,033	$606
Improvement	$6,222,556	$1,136
Total	**$9,543,417**	**$1,742**

5.5.2 Assessment Method

With the exception of single family dwellings, each new development must be reviewed prior to approval by the City and a trip count established. The nationally recognized method of assigning trip values is by reference to the ITE Trip Counts Manual.

The City and/or it's engineer will have to classify each new development with respect to criteria in Section 6 of this study. The ITE manual may need to be consulted for clarification of uses which do not clearly fit the uses listed. In order of preference, the determinations should be made on the basis of gross square footage of developed buildings, number of parking spaces, number of service windows or seats or number of customers. The Oregon statutes which address SDCs, expressly forbid the determination of SDC based on number of employees unless a direct correspondence for service demand can be established.

The determination of existing development peak hour trip counts were made using extensive employee estimates. This method has historically produced accurate results. It is quite possible to establish a direct link between number of employees and trip counts using the ITE Trip Counts Manual. However, in order to avoid controversy, this method should only be used, where specific SDC charges are being computed, if other methods are unsatisfactory and a direct link between level of services and number of employees can be clearly established.

Bandon should use the Peak Hour Trip Counts for Generator tables published in the I.T.E. manual (or adjust to equivalent peak hour trip counts) to remain consistent with the basis of this study.

Included as Table 5.5.2.1, are recommended transportation EDUs in the I.T.E. Land Use Code format for various establishments and associated ITE peak hour trip counts (EDUs) which do not use employee counts as the basis of assessment. Included are the resulting costs which result using the EDU rate of $1,741. These are the recommended values for use in Section 6 regarding the transportation portion of the SDCs. These values should be used whenever possible. They should be modified only after consideration of other factors as explained in the I.T.E. Trip Generation Manual. It is important that the City maintain the protocol right for evaluation of each new non-residential development so that rational adjustments may be made and mixed classifications assigned as appropriate.

Table 5.5.2.1 Trip Count Assignment for New Development - Peak Hour Trip End

DESCRIPTION	ITE TRIP (EDU)	COST PER EDU	COST PER UNIT	UNIT VALUE
INDUSTRIAL				
TRUCK/TRANSPORTATION TERMINALS	0.82	$1,742	$ 1,428	1,000SQFT
MANUFACTURING/INDUSTRIAL	0.74	$1,742	$ 1,289	1,000SQFT
WAREHOUSING	0.51	$1,742	$ 888	1,000SQFT
MINI-WAREHOUSE	0.04	$1,742	$ 70	PER UNIT
PUBLIC UTILITIES	0.49	$1,742	$ 854	1,000SQFT
RESIDENTIAL				
SINGLE-FAMILY HOUSING/DUPLEX	1.00	$1,742	$ 1,742	PER UNIT
MULTI-FAMILY HOUSING/APARTMENTS	0.63	$1,742	$ 1,097	PER UNIT
CONDO./TOWNHOUSE	0.74	$1,742	$ 1,289	PER UNIT
MOTEL/HOTEL	0.74	$1,742	$ 1,289	PER UNIT
INSTITUTIONAL				
CITY PARKS	1.59	$1,742	$ 2,770	PER ACRE
MARINA	0.27	$1,742	$ 470	PER BERTH
GOLF COURSE	4.6	$1,742	$ 8,013	PER HOLE
THEATER (MOVIE OR LIVE)	4.75	$1,742	$ 8,275	1,000SQFT
ELEMENTARY SCHOOL	2.49	$1,742	$ 4,338	1,000SQFT
HIGH SCHOOL	2.87	$1,742	$ 5,000	1,000SQFT
COMMUNITY COLLEGE/BOARDING SCHOOL	1.66	$1,742	$ 2,892	1,000SQFT
CHURCH	3.25	$1,742	$ 5,662	1,000SQFT
DAY CARE CENTER	16.28	$1,742	$ 28,360	1,000SQFT
LIBRARY	7.09	$1,742	$ 12,351	1,000SQFT
HOSPITAL	1.36	$1,742	$ 2,369	PER BED
NURSING HOME	0.37	$1,742	$ 645	PER BED
CLINIC OR VETERNARAINS OFFICE	5.18	$1,742	$ 9,024	1,000SQFT
GOVERNMENT OFFICE BUILDING	11.03	$1,742	$ 19,214	1,000SQFT
RECREATIONAL COMMUNITY CENTER	2.61	$1,742	$ 4,547	1,000SQFT
BUSINESS AND COMMERCIAL				
AMUSEMENT ARCADE/CENTER	17.60	$1,742	$ 30,659	1,000SQFT
AMUSEMENT PARK	3.95	$1,742	$ 6,881	PER ACRE
AUTOMOBILE CARE CENTER	3.38	$1,742	$ 5,888	1,000SQFT
AUTOMOBILE PARTS SALE	5.98	$1,742	$ 10,417	1,000SQFT
AUTOMOBILE SALES NEW/USED	2.80	$1,742	$ 4,878	1,000SQFT
AUTOMOBILE TIRE STORE	3.47	$1,742	$ 6,045	PER SERVICE BAY
AUTOMOBILE QUICK LUBRICATION SHOP	5.19	$1,742	$ 9,041	PER SERVICE BAY
AUTOMOBILE WASH STAFFED	11.20	$1,742	$ 19,510	PER SERVICE BAY
AUTOMOBILE WASH SELF SERVICE	30.00	$1,742	$ 52,260	PER SERVICE BAY
BANK/SAVINGS WALK-IN	25.00	$1,742	$ 43,550	1,000SQFT
ADDITIONAL PER DRIVE-IN WINDOW	17.77	$1,742	$ 30,948	PER DRIVE IN WINDOW
BOARDING KENNELS	1.51	$1,742	$ 2,630	1,000SQFT
ADD FOR GROOMING FACILITIES	4.90	$1,742	$ 8,536	1,000SQFT
BOWLING ALLEY	3.54	$1,742	$ 6,167	PER LANE
BLDG. MATERIALS/LUMBER/HARDWARE	4.20	$1,742	$ 7,316	1,000SQFT
CONVENIENCE MARKET	36.22	$1,742	$ 63,095	1,000SQFT
DISCOUNT STORE FREE STANDING	9.14	$1,742	$ 15,922	PER ACRE (GROSS SITE)
GASOLINE SERVICE STATION	17.00	$1,742	$ 29,614	PER FUELING STATION
GENERAL OFFICE	1.51	$1,742	$ 2,630	1,000SQFT
HEALTH CLUB	4.3	$1,742	$ 7,491	1,000SQFT
LAUNDROMATS	6.41	$1,742	$ 11,166	1,000SQFT
NURSERY RETAIL	3.80	$1,742	$ 6,620	1,000SQFT
RESTAURANT FAST FOOD SIT-DOWN .	26.66	$1,742	$ 46,442	1,000SQFT
ADDITIONAL PER DRIVE-IN WINDOW	20.46	$1,742	$ 35,641	PER DRIVE IN WINDOW
RESTAURANT QUALITY	10.82	$1,742	$ 18,848	1,000SQFT
RETAIL CENTER,SHOP OR STORE	6.41	$1,742	$ 11,166	1,000SQFT
RV/CAMP SITES	0.94	$1,742	$ 1,637	PER SITE
SUPER MARKET/ GROCERY	15.33	$1,742	$ 26,705	1,000SQFT
TAVERN/BAR/DRINKING ESTABLISHMENT	15.94	$1,742	$ 27,767	1,000SQFT
VIDEO RENTAL STORE	13.60	$1,742	$ 23,691	1,000SQFT

Section 6

SUMMARY

6.1 General

A single list of anticipated development types should be adopted for use in determining all services SDCs. The list of current types of users prepared for the transportation SDCs was used as the basis of the list preparation, having been determined by research of the specific commercial, institutional and industrial make up of Bandon.

For the assessment method to be equitable, unambiguous and consistent, it is desirable to have broad classifications to the maximum extent possible. This will reduce subjective classification. However, the list must not be so broad as to obscure significant differences between different types of users.

Criteria such as the number of employees, number of restaurant seats, number of students or number of meals served can be useful for determining existing conditions within a community. However, these methods are not desirable for cost assessment purposes because the above criteria may change with time and under or over estimate future service demands. In addition, the use of number of employees for assessment purposes is severely restricted under Oregon Statutes. A more desirable method will use facility gross square footage criteria or other readily determined and consistent factors such as number of drive-in windows or number of fueling stations.

6.2 Summary of Recommended SDCs

Listed below in Table 6.2.1 are the recommended SDC per EDU charges based on the four City Services under consideration. Table 6.2.2 is the calculation work sheet for assessment.

Table 6.2.1 Summary of Maximum Allowable SDCs Per EDU*

Item	Reimbursement Portion	Improvement Portion	Total SDC
Water	$ 1,362	$ 5,184	$ 6,546
Wastewater	$ 948	$ 1,434	$ 2,382
Drainage	$ 1,641	$ 1,439	$ 3,080
Transportation	$ 606	$ 1,136	$ 1,742
Total	$ 4,557	$ 9,647	**$ 13,750**

* EDU determination varies for each type of service

Table 6.2.2

TABLE 6.2.2 - SYSTEM DEVELOPMENT CHARGE (SDC) CALCULATION SHEET FOR CITY OF BANDON

DEVELOPMENT TYPE	WATER		WASTEWATER			STORM DRAINAGE		TRANSPORTATION			TOTAL SDC COST
	Meter Size Req'd.	Cost from Table W1	1,000 S.F. or Units	EDU Basis	Cost = EDU x $2,382	EDU from Table D1	Cost EDU x $3,080	1,000 S.F. or Units	EDU Basis	Cost = EDU x $1,742	
CAMPS, MOTELS, HOTELS AND MARINAS											
MARINAS, PER BOAT SLIP				0.11					0.27		
MOTELS & HOTELS, PER ROOM				0.48					0.74		
RV PARK PER SPACE				0.67					0.94		
SUMMER OR CHURCH TYPE CAMPS, PER BED				0.42					1.10		
COMMERCIAL / GOVERNMENT *											
AUTO SERVICE STATIONS, PER FUELING POSITION.				1.01					17.00		
AUTO CARE CENTER PER 1000 SQ. FT.				0.15					3.38		
AUTO PARTS SALE PER 1000 SQ. FT.				0.10					5.98		
AUTO SALES NEW/USED PER 1000 SQ. FT.				0.10					2.80		
AUTO QUICK LUBRICATION PER 1000 SQ. FT.				0.50					5.19		
AUTO TIRE STORE PER SERVICE BAY				0.50					3.47		
AUTO WASH STAFFED PER BAY				2.50					11.20		
AUTO WASH SELF SERVICE PER BAY				4.00					30.00		
BANK/ SAVINGS & LOAN PER 1000 SQ. FT.				0.10					25.00		
ADDITIONAL PER DRIVE-IN WINDOW									17.77		
BEAUTY SALON, PER 1000 SQ. FT.				3.74					6.41		
BLDG. MATERIAL/LUMBER/HARDWARE PER 1000 SQ. FT.				0.10					4.20		
BOARDING KENNEL PER RUN				0.14					1.51		
CONVENIENCE MARKET PER 1000 SQ. FT.				0.50					36.22		
DISCOUNT STORE FREE STANDING PER SITE ACRE				0.05					9.14		
DOG GROOMING PER 1000 SQ. FT.				3.74					4.90		
GENERAL OFFICE PER 1000 SQ. FT.				0.07					1.51		
GOVERNMENT OFFICE PER 1000 SQ. FT.				0.09					11.03		
GROCERY STORE PER 1000 SQ. FT.				0.14					15.33		
LAUNDROMATS, PER MACHINE				2.24					6.41		
MANUFACTURING/FACTORY PER 1000 SQ. FT.				0.07					0.74		
ADD FOR FACTORY (WITH SHOWERS) PER 1000 SQ. FT.				0.03							
MINI-WAREHOUSE (STORAGE) PER 1000 SQ. FT.				0.03					0.04		
NURSERY PER 1000 SQ. FT.				0.07					3.80		
RETAIL / SHOP / STORE PER 1000 SQ. FT.				0.10					6.41		
TRUCK / TRANSPORTION TERMINALS PER 1000 SQ. FT.				0.20					0.82		
WAREHOUSING PER 1000 SQ. FT.				0.05					0.51		
EDUCATION FACILITIES / SCHOOLS											
BOARDING SCHOOLS PER RESIDENTIAL UNIT				0.56					1.66		
COMMUNITY COLLEGE PER 1000 SQ. FT.				0.40					1.66		
DAY CARE CENTER (NO MEALS PREPARED) PER 1000 SQ. FT.				0.30					16.26		
LIBRARY PER 1000 SQ. FT.				0.40					7.09		
SCHOOL, NO CAFETERIA OR SHOWERS PER 1000 SQ. FT.				0.29					2.60		
ADD FOR CAFETERIA PER 1000 SQ. FT. OF SCHOOL				0.09							
ADD FOR SHOWERS PER 1000 SQ. FT. OF SCHOOL				0.06							

Table 6.2.2, continued

TABLE 6.2.2 - SYSTEM DEVELOPMENT CHARGE (SDC) CALCULATION SHEET FOR CITY OF BANDON (CONT.)

DEVELOPMENT TYPE	WATER		WASTEWATER			STORM DRAINAGE		TRANSPORTATION			TOTAL SDC COST
	Meter Size Req'd.	Cost from Tab. W1	1,000 S.F. or Units	EDU Basis	Cost - EDU x $2,380	Table D1 EDU	Cost EDU x $3,080	1,000 S.F. or Units	EDU Basis	Cost - EDU x $1,726	
HEALTH CARE FACILITIES											
CLINICS AND VETS., PER 1000 SQ. FT.				1.12					5.18		
HOSPITALS PER BED				1.40					1.36		
NURSING HOMES PER BED				0.84					0.37		
PLACES OF WORSHIP											
WORSHIP & SUNDAY (SABBATH) SCHOOL PER 1000 SQ. FT.				0.13					3.25		
ADD WITH MEAL PREPERATION FACILITIES PER 1000 SQ. FT.				0.09							
RESTAURANTS											
BARS, TAVERNS AND COCKTAIL LOUNGES PER 1000 SQ. FT.				1.85					15.94		
FAST FOOD PER 1000 SQ. FT.				2.52					26.66		
ADDITIONAL PER DRIVE-IN WINDOW				1.34					20.46		
QUALITY RESTAURANT PER 1000 SQ. FT.				2.80					10.82		
RECREATIONAL FACILITIES											
AMUSEMENT ARCADE/CENTER PER 1000 SQ. FT.				1.00					17.60		
BOWLING ALLEY PER LANE				0.15					3.54		
GOLF COURSE PER HOLE				0.20					4.60		
HEALTH OR COUNTRY CLUB PER 1000 SQ. FT.				0.48					4.30		
PARKS PER ACRE				0.09					1.59		
RECREATIONAL COMMUNITY CENTER PER 1000 SQ. FT.				0.70					2.61		
THEATERS, SPORTING EVENTS, PER 1000 SQ. FT.				0.98					4.75		
RESIDENTIAL											
CONDO/ TOWNHOUSE PER HOUSING UNIT				0.90					0.74		
ROOMING/BOARDING HOUSE PER ROOM UNIT				0.25					0.50		
MUTI-FAMILY / APARTMENT PER HOUSING UNIT				0.90					0.63		
SINGLE FAMILY DWELLING PER HOUSING UNIT				1.00					1.00		
EXAMPLE - SINGLE FAMILY DWELLING PER HOUSING UNIT	3/4"	$6,546	1	1.00	$2,382	1	$3,080	1	1.00	$1,742	$13,750

* Includes only domestic wastewater. Process wastewater load must be detemined for each new manufacturing or process facility. Additional one (1) wastewater EDU per 178.5 gallons/day flow.

TABLE W1 WATER SDC COST

Meter	EDU	SDC Cost
3/4"	1	$6,546
1"	1.7	$11,128
1 1/2"	3.3	$21,602
2"	5.3	$34,694
3"	10	$65,460
4"	16.7	$109,318
6"	33.3	$217,982

TABLE D1 DRAINAGE EDU**

Surface	Sq. Ft.		Net Eq. Imper. Area
Impervious		x 1.0	
Gravel		x 0.6	
Compacted Earth		x 0.4	
Total			

Divide Total Net Eq. Impervious area by 2,500 sf./EDU

Drainage EDU

** Single family dwellling = 1.0 EDU : Duplex = 1.5 EDU

6.3 Assessment Criteria

Guidance is provided below for use with Table 6.2.2 in terms of assessment of areas and determination of correct development types and criteria for purposes of SDC calculation.

The water SDC will be the easiest to determine as it is based upon the size of a water meter set for the development in question. Only one SDC assessment should be made per meter set.

Storm drainage SDC assessments should be automatically assigned as one (1) for single-family detached dwellings including mobile or modular homes and 1.5 for a duplex (0.75 per unit). All other development will require that site plans be reviewed and that sufficient detail be provided with respect to impervious and semi-pervious areas proposed.

Wastewater and Transportation SDCs require that the type of development be determined. Table 6.2.2 provides classifications based upon anticipated development in Bandon. Wastewater EDUs are based upon anticipated domestic sewage only. For wet production or process facilities, it will be necessary to estimate that amount of wastewater generated in addition to domestic sewage and assess this flow at a rate of one (1) wastewater EDU per 178.5 gallons per day.

Mixed-use facilities are common. It will often be necessary to divide the facility's gross covered square footage in terms of various facility types. Common areas should be proportioned between assigned types.

Schools / Education Facilities
Schools should be assessed with respect to gross floor space area. This includes outbuilding space. If showers or cafeterias are present, they should be included at the rate of the entire school area, not just the floor space devoted to these functions.

Gymnasiums should be assessed separately as theaters/ sporting events facility. Outdoor stadiums should be assessed at 50% the rate of theaters/sporting events facility.

Education Facilities include art schools, martial arts studios, dance studios. Museums should be assessed at the library rate.

Camps, Motels, Hotels and Marinas
This category includes transient or temporary living facilities, which do not generally see as great a consumption of water or sewage service usage as more permanent living facilities. The criteria are established for the maximum capacity of the facility rather than the occupied number or rooms, beds, slips, etc.

6.3.1 Commercial / Government

This category includes a wide variety of facilities. As noted above, the SDC charges as listed are for the sanitary and/or domestic use of sewage services only. At the time of assessement, it is important to determine process water use for manufacturing or food processing with respect to wastewater production (with the exception of restaurants, laundromats, beauty salons and pet grooming facilities which are already adjusted to reflect higher sewage generation). The City should add wastewater EDUs at the rate of 1 wastewater EDU /178.5 gallons/day of projected process wastewater.

For mixed-use facilities, it is appropriate to divide the facility into its various functions. For example a traveler's service facility might include a convenience store with a fast food restaurant, gas station, auto garage and a car wash. The SDC gas station fuel position assessement should exclude up to 20 square feet of facility floor space for each fueling position from other assessement. The car wash assessement should exclude 50 square feet of facility floor space as well as the wash bay areas from other assessments. A drive in window assessement should exclude 20 square feet of facility floor space from other assessments. Mixed use facilities should include a proportionate amount of restroom, hallway, cashier, entrance space and other common use areas for each assessement type.

6.3.2 Health Care Facilities

These include medical clinics, doctors and other clinician's offices with examine rooms, veterinarian’s offices, dentist's offices, and those portions of mortuary facilities devoted to body preparation. Hospitals and nursing homes should be assessed on the number of approved bed space, not on the basis of occupancy.

Places of Worship and Meeting Halls
These include churches, temples, synagogues, chapels, fraternal organization facilities, lecture and meeting halls and other facilities which are not routinely and continuously occupied such as those portions of mortuaries devoted to chapel services. Church schools and daycare programs which are routinely in session during the week should be assessed as schools, otherwise, Sunday school buildings should be included in the gross floor area of the sanctuary, meeting rooms and offices. Separate storage facilities should be assessed as mini-storage.

Restaurants
There are two broad categories of restaurants. A quality restaurant provides seated service and does not typically offer "to go" service. Service is by means of washable flat ware and orders are generally prepared as ordered. Fast food service is characterized by paper service, "to go" service and food items prepared or semi-prepared in advance of order.

Restaurants, especially the fast food variety, are typically heavy traffic generators. However, in the case of single or limited item service such as ice-cream or fountain service only or other kiosk type of services such as, keys, photo mat or coffee drive-in service it is recommended that the drive-in add-on assessement not be made for facilities with a total floor space of less than 600 square feet. The drive-in addition charge per window should be pro-rated between 601 and 1099 square feet. (0.2% of additional fee per drive-in window per square foot over 600 sf.) Those facilities smaller than 600 sf. should be assessed as fast food restaurants or retail businesses as appropriate on a square footage basis only. Outdoor food service should be assessed at a rate of 50% the standard rate.

6.3.3 Recreational Faculties

Amusement arcade centers include video game parlors, in-door shooting ranges, pool halls and in-door paint-ball facilities. Those portions of the facility devoided to food service or bar service should be assessed separately. The food service gross area should include kitchen, pantry and table areas. In addition, each assessement type should include a proportionate amount of storage, restroom, hallway, cashier and entrance space.

In the case of golf courses, miniture golf should be assessed at the same rate as conventional golf courses per hole. Food service facilities should be assessed separately. Driving ranges should be assessed at a rate of 33% per hole cost per driving position.

6.3.4 Residential

The SDCs are based upon comparison with the City services typically required of a single family detached dwelling. In the case of storm drainage, it is recommended that 1 EDU be automatically assigned for each dwelling of this type and that for duplex dwellings, 0.75 EDUs be assigned for each dwelling unit. Modular or mobile homes anchored to the ground should be assessed at the same rates as conventional homes. All other types of development will require that the impervious areas be computed. Gravel surfaced areas should be assessed at 60% of the impervious areas (roofs, sidewalks, concrete or asphalt pavements, etc.). Compacted earth areas (material storage yards, occasional parking, etc.) should be assessed at 40% of impervious areas. Only natural or freely draining landscaped areas such as lawns, undeveloped woods or pasture should be classified as pervious without storm drainage assessement.

6.4 Conclusion

As noted at the beginning of this study, new homes and commercial facilities in the Bandon Urban Growth Boundary place additional demands upon the existing infrastructure and require the construction of municipal infrastructure to support this development. The City should resist the temptation to adjust fees based on income tests, profitability, or other criteria not related to the actual impact of the proposed development. The State Attorney General's Office was contacted regarding this concept

and was not comfortable with it for a number of reasons. To reduce fees in this manner is not consistent with principles of equality under law and will shift the burden of infrastructure development to others, including existing system users. If the City desires to subsidize certain developments, it should do so by direct payment of the subsidized amount to the SDC funds from other funds specifically established for this purpose.

The next step for the City of Bandon, after acceptance of this study, is to craft and pass an ordinance establishing the SDC methodology and costs adopted by the City Council. As noted previously, all interested parties must be provided notification of this process and allowed an opportunity to participate.

A final recommendation is made that the City Council consider the establishment of a cost index mechanism to be included in the ordinance. The recommended index is the Engineering News Record (ENR) Construction Price Index found at:

http://enr.construction.com/features/conEco/costIndexes/constIndexHist.asp

The base index should be established as 6782 for December 2003. This index should be used to automatically adjust the SDCs for each service area on a yearly basis. This will adjust for inflation (or deflation) and maintain the SDC with respect to actual construction costs in the future. The ENR index meets the requirements of SB 939 Section 4.

APPENDIX

A

Oregon Revised Statues 223.297 TO 223.324 System Development Charges

72nd Oregon Legislative Assembly -- 2003 Regular Session Senate Bill 939

ORS 223.297 TO 223.324

223.297 Policy. The purpose of ORS 223.297 to 223.314 is to provide a uniform framework for the imposition of system development charges by governmental units for specified purposes and to establish that the charges may be used only for capital improvements. [1989 c.449 §1; 1991 c.902 §25]

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

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

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

(A) Water supply, treatment and distribution;

(B) Waste water collection, transmission, treatment and disposal;

(C) Drainage and flood control;

(D) Transportation; or

(E) Parks and recreation.

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

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

(3) "Reimbursement fee" means a fee for costs associated with capital improvements already constructed or under construction.

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

(b) "System development charge" does not include any fees assessed or collected as part of a local improvement district or a charge in lieu of a local improvement district assessment, or the cost of complying with requirements or conditions imposed upon a

land use decision, expedited land division or limited land use decision. [1989 c.449 §2; 1991 c.817 §29; 1991 c.902 §26; 1995 c.595 §28]

Note: See note under 223.297.

223.300 [Repealed by 1975 c.642 §26]

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

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

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

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

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

Note: See note under 223.297.

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

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

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

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

Note: See note under 223.297.

223.304 Determination of amount of system development charges; methodology; credit allowed against charge; limitation of action contesting methodology for imposing charge; notification request. (1)(a) Reimbursement fees shall be established or modified by ordinance or resolution setting forth a methodology that considers the cost of the existing facility or facilities, prior contributions by existing users, gifts or grants from federal or state government or private persons, the value of unused capacity available to future system users, rate-making principles employed to finance publicly owned capital improvements and other relevant factors identified by the local government imposing the fee.

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

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

(B) Be available for public inspection.

(2)(a) Improvement fees shall:

(A) Be established or modified by ordinance or resolution setting forth a methodology that considers the cost of projected capital improvements needed to increase the capacity of the systems to which the fee is related.

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

(b) The methodology for establishing or modifying improvement fees shall be available for public inspection.

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

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

(b) Located in whole or in part on or contiguous to property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related.

(4)(a) The credit provided for in subsection (3) of this section shall be only for the improvement fee charged for the type of improvement being constructed, and credit for qualified public improvements under subsection (3)(b) of this section may be granted only for the cost of that portion of such improvement that exceeds the government units minimum standard facility size or capacity needed to serve the particular development project or property. The applicant shall have the burden of demonstrating that a particular improvement qualifies for credit under subsection (3)(b) of this section.

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

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

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

(6) Written notice shall be mailed to persons on the list at least 90 days prior to the first hearing to establish or modify a system development charge, and the methodology supporting the system development charge shall be available at least 60 days prior to the first hearing. The failure of a person on the list to receive a notice that was mailed does not invalidate the action of the local government. The unit of local government may periodically delete names from the list, but at least 30 days prior to removing a name from the list must notify the person whose name is to be deleted that a new written request for notification is required if the person wishes to remain on the notification list. Legal action intended to contest the methodology used for calculating a system development charge may not be filed after 60 days following adoption or modification of the system development charge ordinance or resolution by the local government. A person shall request judicial review of the methodology used for calculating a system development charge only as provided in ORS 34.010 to 34.100.

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

periodic application of an adopted specific cost index or on a modification to any of the factors related to rate that are incorporated in the established methodology. [1989 c.449 §4; 1991 c.902 §28; 1993 c.804 §20; 2001 c.662 §3]

Note: See note under 223.297.

223.305 [Repealed by 1971 c.325 §1]

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

(2) Improvement fees shall be spent only on capacity increasing capital improvements, including expenditures relating to repayment of debt for such improvements. An increase in system capacity may be established if a capital improvement increases the level of performance or service provided by existing facilities or provides new facilities. The portion of such improvements funded by improvement fees must be related to current or projected development.

(3) System development charges shall not be expended for costs associated with the construction of administrative office facilities that are more than an incidental part of other capital improvements.

(4) Any capital improvement being funded wholly or in part with system development charge revenues shall be included in the plan adopted by a governmental unit pursuant to ORS 223.309.

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

Note: See note under 223.297.

223.309 Preparation of plan for capital improvements financed by system development charges; modification. (1) Prior to the establishment of a system development charge by ordinance or resolution, a governmental unit shall prepare a capital improvement plan, public facilities plan, master plan or comparable plan that includes a list of the capital improvements that may be funded with improvement fee revenues and the estimated cost and timing for each improvement.

(2) A governmental unit that has prepared a plan and the list described in subsection (1) of this section may modify such plan and list at any time. [1989 c.449 §6; 1991 c.902 §30; 2001 c.662 §4]

Note: See note under 223.297.

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

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

(2) The governmental unit shall include in the annual accounting a list of the amount spent on each project funded, in whole or in part, with system development charge revenues. [1989 c.449 §7; 1991 c.902 §31; 2001 c.662 §5]

Note: See note under 223.297.

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

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

(2) The provisions of ORS 223.297 to 223.314 shall not be applicable if they are construed to impair bond obligations for which system development charges have been pledged or to impair the ability of governmental units to issue new bonds or other financing as provided by law for improvements allowed under ORS 223.297 to 223.314. [1989 c.449 §8; 1991 c.902 §32]

Note: See note under 223.297.

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

Note: See note under 223.297.

223.315 [Repealed by 1971 c.325 §1]

APPENDIX

B

Water Fund Table Lists - Life Exp. & Depreciation Page 8 City of Bandon DBM

Water Pipe Inventory (mary/projects/4501.00/water and storm inventory) Dyer

Insurance and Property Accounting Report /April 29, 2002 by Valuations Northwest, Inc. pages 50 through 54

Asset No	Description	Department	Date Acquired	Cash Cost	Current Book Value	Classification	Accumulated Depreciation	Life	Current Year Depreciation
WATER FUND									
2000972	WATER PUMP, VERTICAL TURBINE W	WATER PLANT	06/01/2000	15,974.00	12,691.92	DISTRIBUTION SYSTEM	3,282.08	15	1,064.93
2000973	WATER PUMP, VERTICAL TURBINE W	WATER PLANT	06/01/2000	44,100.00	35,039.02	DISTRIBUTION SYSTEM	9,060.98	15	2,940.00
2000974	TELEMETRY UNIT	WATER PLANT	06/01/2000	15,680.00	13,263.74	MACHINERY & EQUIPMEN	2,416.26	20	784.00
2000975	WATER PIPING AND VALVE - LOT,	WATER PLANT	06/01/2000	23,997.26	22,148.30	MACHINERY & EQUIPMEN	1,848.96	40	599.93
2000976	WATER PUMP, VERTICAL TURBINE W	WATER PLANT	06/01/2000	6,370.00	5,061.18	DISTRIBUTION SYSTEM	1,308.82	15	424.67
2000977	WATER PUMP, VERTICAL TURBINE W	WATER PLANT	06/01/2000	16,170.00	12,847.64	DISTRIBUTION SYSTEM	3,322.36	15	1,078.00
2000978	WATER PIPING AND VALVE - LOT,	WATER PLANT	06/01/2000	15,576.12	14,376.00	MACHINERY & EQUIPMEN	1,200.12	40	389.40
2000979	TELEMETRY UNIT	WATER PLANT	06/01/2000	15,680.00	13,263.74	MACHINERY & EQUIPMEN	2,416.26	20	784.00
2001065	PICKUP, F450 SUPER DUTY, 1991	WATER-DISTRIBUTION	06/01/1991	6,000.00	1,164.93	MOBILE EQUIPMENT	4,835.07	15	400.00
2001091	PUMP HOUSE - MIDDLE	WATER PLANT	06/01/2000	32,157.00	30,227.58	BUILDINGS	1,929.42	50	343.14
2001092	WATER TANK #1, 1 Million Gallo	WATER PLANT	06/01/1970	90,612.00	30,773.32	DISTRIBUTION SYSTEM	59,838.68	50	1,812.24
2001093	WATER TANK #2, 2 Million Gallo	WATER PLANT	06/01/2000	547,197.00	514,365.18	DISTRIBUTION SYSTEM	32,831.82	50	10,943.94
2001118	WATER TREATMENT BUILDING	WATER PLANT	06/01/2000	366,331.00	344,351.14	BUILDINGS	21,979.86	50	7,326.62
2001130	WATER TREATMENT PLANT	WATER PLANT	06/01/2000	2,961,291.00	2,739,194.16	BUILDINGS	222,096.84	40	74,032.28
2001131	WATER CLARIFIER, Water Dept	WATER PLANT	06/01/1981	159,260.00	42,411.13	BUILDINGS	116,848.87	30	5,308.67
2001132	PUMP HOUSE, Lower	WATER PLANT	06/01/2000	22,805.00	20,524.49	BUILDINGS	2,280.51	30	760.17
2001151	NEW RAW WATER INTAKE-COMPLETE	WATER PLANT	06/30/2003	133,981.53	133,957.06	MACHINERY & EQUIPMEN	24.47	15	24.47
2001179	PICKUP, F150, 2001	WATER PLANT	06/01/2000	15,397.00	14,370.53	MACHINERY & EQUIPMEN	1,026.47	15	1,026.47
2001180	WATER METERS	WATER DIST	06/30/2002	173,204.00	164,543.80	MACHINERY & EQUIPMEN	8,660.20	20	8,660.20
2001181	FIRE HYDRANTS	WATER DIST	06/30/2002	175,000.00	166,250.00	MACHINERY & EQUIPMEN	8,750.00	20	8,750.00
2001182	WATER METERS FY 02-03	WATER DIST	06/30/2003	6,537.94	6,537.22	MACHINERY & EQUIPMEN	.72	25	.72
2001185	LAND-YORK WATERSHED	WATER DEPT	10/31/1996	100,000.00	100,000.00	LAND	.00	0	.00
2001186	LAND-160 ACRES WATERSHED	WATER DEPT		237,860.00	237,860.00	LAND	.00	0	.00
2001187	LAND-WATER TREATMENT PLANT	WATER DEPT		233,163.00	233,163.00	LAND	.00	0	.00
7200001	WATER PIPE INVENTORY	WATER-DISTRIBUTION	06/30/1994	2,659,118.00	2,114,876.35	DISTRIBUTION SYSTEM	544,241.65	44	60,434.50
				8,073,461.85	7,023,261.43		1,050,200.42		188,188.35
				87,974,771.18	35,139,561.12		52,835,210.06		2,871,024.92

Report Criteria:
Asset Cash Cost = {>} 5000

WATER PIPE INVENTORY

PIPE SIZE	TYPE OF PIPE	TOTAL LENGTH	CONSTRUCTION COST NEW/L.F	ESTIMATED VALUE NEW/L.F.	LIFE EXPECTENCY	EXPECTED REMAINING LIFE	ANNUAL DEPRECIATION	TOTAL ESTIMATED VALUE
2"	PVC	7,050	$13.60	$95,880	60	50	$1,598	$79,900
3"	AC	20	$13.80	$276	40	15	$7	$104
4"	AC	35,530	$17.20	$611,116	40	15	$15,278	$229,169
4"	DI	80	$29.90	$2,392	50	45	$48	$2,153
4"	PVC	9,560	$23.00	$219,880	60	60	$3,665	$219,880
6"	AC	28,190	$23.60	$665,284	40	15	$16,632	$249,482
6"	DI	40	$41.00	$1,640	50	45	$33	$1,476
6"	PVC	22,880	$31.50	$720,720	60	50	$12,012	$600,600
8"	AC	2,550	$26.30	$67,065	40	15	$1,677	$25,149
8"	PVC	14,860	$35.00	$520,100	60	50	$8,668	$433,417
10"	AC	19,090	$28.10	$536,429	40	15	$13,411	$201,161
10"	DI	2,830	$48.80	$138,104	50	40	$2,762	$110,483
10"	PVC	5,360	$37.50	$201,000	60	50	$3,350	$167,500
12"	AC	3,610	$31.00	$111,910	40	15	$2,798	$41,966
12"	DI	2,130	$53.80	$114,594	50	45	$2,292	$103,135
12"	PVC	5,610	$41.40	$232,254	60	50	$3,871	$193,545
							TOTAL=	$2,659,118

75-0001

364

PROP : 300 WATER DEPT, Culinary
BLDG : 001 WATER TREATMENT PLANT

POLICY CODE : 0
INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #		CHEMICAL ROOM					
02000888	116	1	STEP STOOL, WAREHOUSE, 4 STEP GILLIS	10	06/01	84	85	79
02000889	116	1	STEP STOOL, WAREHOUSE, 4 STEP PW	10	06/01	84	85	79
02000887	190	1	BARREL TRUCK	10	06/01	138	140	131
02000891	190	1	PALLET JACK, ELECTRIC, W/BATTERY HYSTER W40XT A218H05406X Tag# 5569	10	06/00	3,850*	4,000	3,560
02000890	190	1	PALLET FORK LIFT, ELEC, 1400 LB CAP PERESTO PSTA27107 149953 Tag# 5566	10	06/00	2,850*	3,000	2,670
02000892	408	1	MEASURING WHEEL, WALK BEHIND, HVY-DUTY	8	06/01	187	189	177
	ROOM #		GARAGE					
02000893	181	1	LADDER, STEP, ALUMINUM, 6'	10	06/01	152	154	145
02000894	181	1	LADDER, EXTENSION, ALUMINUM, 10'	10	06/01	217	220	206
02000895	181	1	LADDER, EXTENSION, ALUMINUM, 12', CLOSED	10	06/01	263	266	250
02000896	331	1	PRESSURE WASHER, ELECTRIC, 1200 PSI POWERMATE	10	06/01	346	350	329
	ROOM #		LAB					
02000872	111	1	CHAIR, SWIVEL, ARM, METAL, UPH	15	06/89	158	198	128
02000873	111	1	CHAIR, SWIVEL, ARM, METAL, UPH	15	06/01	196	198	186
02000871	115	3	CHAIR, METAL, FOLDING	10	06/01	44	45	42
02000870	128	1	TABLE, METAL, FOLDING, 60X30"	12	06/01	99	100	94
02000885	183	1	MOP PAIL, W/PRESS, PLASTIC	8	06/01	88	89	83
02000886	186	1	VACUUM, SHOPVAC, 4.5 HP, 12 GAL SHOPVAC	8	06/01	69	70	65
02000877	270	1	COMPUTER, ZIP, DAT 28 TAPE BACKUP, FOR WATER PLANT PCHS Tag# 5561	8	06/01	4,455	4,500	4,230
02000874	271	1	MONITOR, COLOR, 19" AOC 9GLRS PG01A000538 Tag# 5558	8	06/01	296	299	281
02000875	272	1	PRINTER, INKJET, COLOR HP DESKJT840C CN0161R13G Tag# 5559	10	06/01	98	99	93

PROP : 300 WATER DEPT, Culinary
BLDG : 001 WATER TREATMENT PLANT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM # LAB		(Cont.)					
02000876	272	1	PRINTER, MATRIX, 80 COLUMN OKIDATA M320T 1B2607019	10	06/01	345	349	328
Tag#	5560			10	06/01	594	600	564
02000883	513	1	CHEMISTRY GLASSWARE - LOT, MISC	10	06/01	940	950	893
02000879	513	1	TURBIDIMETER, DIGITAL, SINGLE INPUT HACH 2100N 400006108	10	06/01	559	565	531
Tag#	5563							
02000878	519	1	LABORATORY PH METER, DIGITAL HACH EC30 97040001302	10	06/01	226	229	215
Tag#	5562							
02000882	519	1	CHLORINE TESTER, HAND HELD HACH POCKET COLORIMETER	10	06/01	1,089	1,100	1,034
02000880	519	1	LABORATORY STIR, 6 UNIT PHIPPS&BIRD 200010746	10	06/01	1,089	1,100	1,034
Tag#	5564							
02000881	519	1	LABORATORY STIR, 6 UNIT PHIPPS&BIRD 200060802	15	06/01	445	450	423
Tag#	5565							
02000884	755	1	DISHWASHER, DOMESTIC, BUILT-IN, UNDER COUNTER WHIRLPOOL	15	06/01	338	342	321
	ROOM # OFFICE							
02000864	103	1	DESK, OFFICE, DBL PEDESTAL, METAL	12	06/01	105	107	100
Tag#	5552			20	06/95	178	194	145
02000863	128	1	TABLE, METAL, FOLDING, 72X30"	20	06/01	218	221	207
02000860	140	1	FILE, LETTER, 4 DRAWER AH					
Tag#	5551			15	06/01	877	886	833
02000859	140	1	FILE, LETTER, 4 DRAWER, W/LOCK TENSCO	15	06/01	371	375	352
Tag#	5550							
02000858	153	2	BOOKCASE, METAL, ADJ SHELVES, 36X12X84"	15	06/01	148	150	141
02000865	156	1	BLUEPRINT CART, SINGLE SIDE, 12 BLUEPRINT	10	06/01	297	300	282
Tag#	5553							
02000862	158	1	PRINTER CART, OPEN, LAM FIN, SINGLE SHELF, 24X18	8	06/01	237	240	225
02000866	244	1	FAX MACHINE, PLAIN PAPER PANASONIC KX-FP80 0CCFA150121					
Tag#	5554							
02000861	257	1	COPY MACHINE, COUNTER TOP, PERSONAL CANON PC-420					

PROP : 300 WATER DEPT, Culinary POLICY CODE : 0
BLDG : 001 WATER TREATMENT PLANT INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #	OFFICE	(Cont.)					
02000869	270	1	COMPUTER, 3"FDD, CDROM, CDWRITER W/KEYBRD	8	06/99	900	900	756
Tag# 5557			GUI					
02000867	271	1	MONITOR, COLOR, 19"	8	06/01	296	299	281
Tag# 5555			HANSOL 900P B9922000544					
02000868	272	1	PRINTER, INKJET, COLOR	10	06/01	197	199	187
Tag# 5556			HP DESKJT970CSE MY022182F9					

BUILDING TOTAL

ORIGINAL COST	23,123		
REPLACEMENT COST		23,643	
DEPRECIATED VALUE			21,680

PROP : 300 WATER DEPT, Culinary POLICY CODE : 0
BLDG : 101 PUMP HOUSE, Lower INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #		PUMP HOUSE, Lower					
02000975	804	1	WATER PIPING AND VALVE - LOT, MISC	40	06/00	23,997	24,487	21,793
02000972	876	2	WATER PUMP, VERTICAL TURBINE W/WIRING & CONTROLS,	20	15 06/00	31,948	32,600	29,014
02000973	876	1	WATER PUMP, VERTICAL TURBINE W/WIRING & CONTROLS,	50	15 06/00	44,100	45,000	40,050
02000974	881	1	TELEMETRY UNIT	20	06/00	15,680	16,000	14,240

BUILDING TOTAL

ORIGINAL COST	115,725		
REPLACEMENT COST		118,087	
DEPRECIATED VALUE			105,097

PROP : 300 WATER DEPT, Culinary POLICY CODE : 0
BLDG : 102 PUMP HOUSE, Middle INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #		PUMP HOUSE, Middle					
02000978	804	1	WATER PIPING AND VALVE - LOT, MISC	40	06/00	15,576	15,894	14,145
02000976	876	2	WATER PUMP, VERTICAL TURBINE W/WIRING & CONTROLS, 15	15	06/00	12,740	13,000	11,570
02000977	876	1	WATER PUMP, VERTICAL TURBINE W/WIRING & CONTROLS, 25	15	06/00	16,170	16,500	14,685
02000979	881	1	TELEMETRY UNIT	20	06/00	15,680	16,000	14,240

BUILDING TOTAL
ORIGINAL COST 60,166
REPLACEMENT COST 61,394
DEPRECIATED VALUE 54,640

PROPERTY TOTAL
ORIGINAL COST 199,014
REPLACEMENT COST 203,124
DEPRECIATED VALUE 181,417

APPENDIX

C

Sewer Fund Table Lists - Life Exp. & Depreciation Page 5 City of Bandon DBM

Water Pipe Inventory (mary/projects/4501.00/water and storm inventory) Dyer

Insurance and Property Accounting Report /April 29, 2002 by Valuations Northwest, Inc. pages 55 through 64

Asset No	Description	Department	Date Acquired	Cash Cost	Current Book Value	Classification	Accumulated Depreciation	Life	Current Year Depreciation
SEWER FUND									
2000980	WATER PUMP, VERTICAL TURBINE W	SEWER PLANT	06/01/1993	60,000.00	19,660.27	DISTRIBUTION SYSTEM	40,339.73	15	4,000.00
2000981	WATER PIPING AND VALVE - LOT,	SEWER PLANT	06/01/1993	12,891.40	9,641.14	DISTRIBUTION SYSTEM	3,250.26	40	322.29
2000982	TELEMETRY UNIT	SEWER PLANT	06/01/1993	8,600.00	4,263.48	MACHINERY & EQUIPMEN	4,336.52	20	430.00
2000984	WATER PUMP, SUBMERSIBLE W/WIRI	SEWER PLANT	06/01/1995	7,820.00	3,605.08	DISTRIBUTION SYSTEM	4,214.92	15	521.33
2001019	SLUDGE PUMP, PORTABLE, ON TRAI	SEWER PLANT	04/01/2002	24,000.00	18,003.29	MACHINERY & EQUIPMEN	5,996.71	5	4,800.00
2001085	TANKER TRUCK, 1992	SEWER PLANT	06/01/1992	54,000.00	24,070.68	MACHINERY & EQUIPMEN	29,929.32	20	2,700.00
2001086	PICKUP, 2001	SEWER DEPT	06/01/2001	16,500.00	14,209.59	AUTOMOTIVE	2,290.41	15	1,100.00
2001094	SEWAGE PLANT, MS	SEWER PLANT	06/01/1970	2,279,522.00	393,139.48	DISTRIBUTION SYSTEM	1,886,382.52	40	56,988.05
2001095	SLUDGE THICKENER	SEWER PLANT	06/01/1993	25,701.00	17,131.65	DISTRIBUTION SYSTEM	8,569.35	30	856.70
2001096	PUMP SHELTER RAS	SEWER PLANT	06/01/1986	12,048.00	5,217.50	BUILDINGS	6,830.50	30	401.60
2001097	LIFT STATION, Fillmore	SEWER PLANT	06/01/1993	11,384.00	7,588.27	BUILDINGS	3,795.73	30	379.47
2001098	LIFT STATION, North Avenue	SEWER PLANT	06/01/1978	18,640.00	3,098.18	BUILDINGS	15,541.82	30	621.33
2001119	ADMIN OFFICES / LAB, Sewage Tr	SEWER PLANT	06/01/1970	18,187.00	14,184.86	BUILDINGS	4,002.14	50	363.74
2001120	OPERATIONS BUILDING, Sewage Tr	SEWER PLANT	06/01/1993	133,657.00	106,698.57	BUILDINGS	26,958.43	50	2,673.14
2001121	LIFT STATION, Johnson Creek	SEWER PLANT	06/01/1982	33,479.00	10,031.45	BUILDINGS	23,447.55	30	1,115.97
2001122	LIFT STATION, Jetty	SEWER PLANT	06/01/1998	36,510.00	30,425.00	BUILDINGS	6,085.00	30	1,217.00
2001138	MULTI CHANNEL RECORDER	SEWER DEPT	02/10/2003	10,546.00	10,138.61	MACHINERY & EQUIPMEN	407.39	10	407.39
2001157	CITY SHOP-CONST. IN PROGRESS	SEWER DEPT	06/30/1999	13,251.77	13,251.77	BUILDINGS	.00	0	.00
2001160	CITY SHOP-CONST. IN PROGRESS	SEWER DEPT	06/30/2002	39,554.87	39,554.87	BUILDINGS	.00	0	.00
2001163	CITY SHOP-CONST. IN PROGRESS	SEWER DEPT	06/30/2001	27,325.06	27,325.06	BUILDINGS	.00	0	.00
2001164	LAND-WASTE WATER PLANT	SEWER DEPT		31,675.00	31,675.00	LAND	.00	0	.00
7000001	SEWER PIPE INVENTORY-GRAVITY	SEWER-COLLECTION	06/01/1975	3,104,359.00	1,650,555.06	DISTRIBUTION SYSTEM	1,453,803.94	60	51,739.32
7000002	SEWER PIPE INVENTORY - FORCE	SEWER-COLLECTION	06/01/1975	236,578.00	125,786.02	DISTRIBUTION SYSTEM	110,791.98	60	3,942.97
				6,216,229.10	2,579,254.88		3,636,974.22		134,580.30

SEWER PIPE INVENTORY - GRAVITY

PIPE SIZE	TYPE OF PIPE	TOTAL LENGTH	CONSTRUCTION COST NEW/L.F	ESTIMATED VALUE NEW/L.F.	LIFE EXPECTENCY	EXPECTED REMAINING LIFE	ANNUAL DEPRECIATION	TOTAL ESTIMATED VALUE
6"	PVC	1,180	$59.00	$69,620	60	50	$1,160	$58,017
6"	C	650	$47.20	$30,680	40	15	$767	$11,505
8"	PVC	11,780	$73.80	$869,364	60	50	$14,489	$724,470
8"	VC	8,310	$44.30	$368,133	30	10	$12,271	$122,711
8"	AC	24,250	$59.00	$1,430,750	40	15	$35,769	$536,531
8"	VC	46,750	$59.00	$2,758,250	40	15	$68,956	$1,034,344
10"	PVC	1,800	$82.20	$147,960	60	50	$2,466	$123,300
10"	VC	600	$49.30	$29,580	30	10	$986	$9,860
10"	C	5,090	$65.80	$334,922	40	15	$8,373	$125,596
12"	AC	4,030	$72.30	$291,369	40	15	$7,284	$109,263
12"	C	8,030	$54.20	$435,226	40	15	$10,881	$163,210
14"	C	350	$82.20	$28,770	40	15	$719	$10,789
15"	C	1,610	$98.70	$158,907	40	15	$3,973	$59,590
18"	C	240	$131.60	$31,584	40	15	$790	$11,844
20"	C	60	$148.00	$8,880	40	15	$222	$3,330
							SUBTOTAL=	$3,104,359

70.00001

10
25
10
20
25
25
10
20
25
25
25
25
25
25
320/16 = 20

SEWER PIPE INVENTORY - FORCE MAIN

PIPE SIZE	TYPE OF PIPE	TOTAL LENGTH	CONSTRUCTION COST NEW/L.F	ESTIMATED VALUE NEW/L.F.	LIFE EXPECTENCY	EXPECTED REMAINING LIFE	ANNUAL DEPRECIATION	TOTAL ESTIMATED VALUE
4"	TYP UNK.	80	$23.00	$1,840	50	25	$37	$920
6"	PVC	8,670	$31.50	$273,105	60	50	$4,552	$227,588
12"	DI	250	$53.80	$13,450	50	30	$269	$8,070
							SUBTOTAL=	$236,578
							TOTAL=	$3,340,937

70.00002

PROP : 400 SEWAGE TREATMENT
BLDG : 010 ADMIN OFFICE / LAB

POLICY CODE : 0
INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM # LAB							
02000944	111	1	CHAIR, SWIVEL, ARM, METAL, UPH	15	06/89	126	158	102
02000945	111	2	CHAIR, STACKING, LITE-DUTY, UPH SEAT & BACK	15	06/89	56	70	45
02000946	116	1	STOOL, RING BASE, SWIVEL, UPH SEAT & BACK	10	06/89	116	145	94
02000953	128	1	TABLE, METAL, FOLDING, 72X36"	12	06/89	74	92	60
02000970	154	9	LOCKER, MTL, SINGLE DOOR, 12X12X74	12	06/89	1,332	1,665	1,082
02000954	257	1	COPY MACHINE, PERSONAL	8	06/01	237	240	225
			CANON PC420					
02000957	270	1	COMPUTER, 3"FDD, CDROM W/KEYBRD	8	06/99	776	800	672
Tag#	5591		IBM-CLONE					
02000958	271	1	MONITOR, COLOR, 14"	8	06/93	99	120	86
Tag#	5592		KOMODO					
02000956	272	1	PRINTER, MATRIX, 120 COLUMN	10	06/01	474	479	450
Tag#	5590		FUJITSU DL3600 MA822070					
02000955	503	1	MICROSCOPE, ELEC, 3 OBJ, ANG EYE PIECE, MICRO TABLE	15	06/00	784	800	712
Tag#	5589		REICHET 160 BF328577					
02000965	504	1	LABORATORY BALANCE, DGTL READOUT, MOISTURE DETERMINAT	15	06/00	2,401	2,450	2,180
Tag#	5596		AND AD-4712 5393011					
02000959	504	1	SCALE, LAB, SCIENCE, DIGITAL, ENCLOSED	15	06/00	2,205	2,250	2,002
Tag#	5593		SARTORIUS B120S 38070043					
02000960	511	1	LABORATORY BATH, CONSTANT TEMPERATURE, MAGNA WHIRL	10	06/99	1,224	1,275	1,071
Tag#	5594		BLUEM					
02000961	511	1	AUTOCLAVE, LAB STYLE, SINGLE DOOR	10	06/89	2,765	3,500	2,275
Tag#	5595		NAPCO 900-D					
02000966	511	1	INCUBATOR OVEN, SOLID SINGLE DOOR, 20"	10	06/00	2,744	2,800	2,492
Tag#	5597		SHELLAB SL-02					
02000967	511	1	LABORATORY OVEN, SINGLE DOOR, 8"	10	06/89	553	700	455
Tag#	5598		THERMOLYNE 1400					
02000963	513	1	CHEMISTRY GLASSWARE - LOT, MISC	10	06/89	2,370	3,000	1,950
02000943	513	1	WATER DISTILLER	10	06/89	2,488	3,150	2,047
Tag#	5585		CORNING MP-6A 13516					
02000962	513	1	HOT PLATE STIR	10	06/89	185	235	152
			CORNING PC-320					

INSURANCE AND PROPERTY ACCOUNTING REPORT
CITY OF BANDON
BANDON, OREGON

PROP : 400 SEWAGE TREATMENT
BLDG : 010 ADMIN OFFICE / LAB

POLICY CODE : 0
INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM # LAB		(Cont.)					
02000951	513	1	PH METER, DIGITAL READOUT, LAB	10	06/89	474	600	390
Tag# 5587			ORION 420A+ 47057					
02000968	519	1	LABORATORY HOOD, SINGLE GLASS, LIFT DOOR, 60"	10	06/89	3,713	4,700	3,055
02000964	519	1	TEST KIT	10	06/89	197	250	162
			LAMOTTE SULFIDE					
02000952	519	1	DISSOLVED OXYGEN METER, DIGITAL, LAB	10	06/89	750	950	617
Tag# 5588			YSI 5100 00L0146					
02000950	519	1	OXYGEN METER, MANUAL, LAB STYLE	10	06/89	750	950	617
Tag# 5586			YSI 54A 90M021864					
02001087	684	2	SCBA UNIT	10	06/90	4,400*	4,400	2,904
			SCOTT					
02000969	695	1	FIRST AID CABINET, MTL, SMALL, WALL MOUNT	7	06/89	100	125	81
02000948	711	1	REFRIGERATOR, OFFICE, 5 CBFT	15	06/89	135	169	109
02000949	711	1	REFRIGERATOR, SINGLE DOOR, 10 CBFT	15	06/89	560	700	455
			HOTPOINT					
02000947	755	1	DISHWASHER, DOMESTIC, UNDER COUNTER, HVY-DUTY	15	06/89	385	500	325
			MAYTAG					
	ROOM # OFFICE							
02000933	103	1	DESK, LAM FIN, L-SHAPE, W/PED TABLE, 84X72	15	06/89	248	310	201
02000934	103	1	DESK, WORK STATION, LAM FIN W/EXT TABLE/SHELF, 84X48X	15	06/89	400	500	325
02000925	111	1	CHAIR, SWIVEL, METAL, UPH	15	06/89	120	151	98
02000926	111	1	CHAIR, SWIVEL, ARM, METAL, UPH	15	06/89	158	198	128
02000931	111	1	CHAIR, SWIVEL, ARM, METAL, UPH	15	06/97	188	198	156
02000938	130	1	TYPING TABLE, MTL TUBE FRAME, LITE-DUTY, LAM TOP, 48X	15	06/89	108	135	87
02000927	140	1	FILE, LETTER, 4 DRAWER, W/LOCK	20	06/95	203	221	163
Tag# 5578								
02000928	140	1	FILE, LETTER, 4 DRAWER, W/LOCK	20	06/95	203	221	163
Tag# 5579								
02000932	140	2	FILE, LETTER, 2 DRAWER, ECONOMY	20	06/89	94	118	76
02000929	153	1	BOOKCASE, LAM FINISH, 30X12X96"	15	06/89	156	195	126
02000930	153	1	BOOKCASE, LAM FINISH, 36X12X96"	15	06/89	184	230	149

PROP : 400 SEWAGE TREATMENT POLICY CODE : 0
BLDG : 010 ADMIN OFFICE / LAB INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #	OFFICE	(Cont.)					
02000937	270	1	COMPUTER, 3"FDD, CDROM, ZIP DRIVE W/KEYBRD	8	06/00	931	950	845
Tag# 5582			CH CELERON					
02000939	270	1	COMPUTER, 3"FDD, CDROM W/KEYBRD	8	02/02	1,600	1,600	1,536
Tag# 5583			DELL PIV 5FX3011					
02000940	271	1	MONITOR, COLOR, 17"	8	06/01	246	249	234
Tag# 5584			DELL 478011ACH1JK					
02000936	271	1	MONITOR, COLOR, 17"	8	06/01	188	190	178
Tag# 5581			RELISYS TE786H M104200311					
02000935	272	1	PRINT/SCAN/COPIER	10	06/01	296	299	281
Tag# 5580			HP OFCJTR40XI SGA93A04N0					
02000942	702	1	DRYER, DOMESTIC	10	06/89	340	425	276
			SEARS					
02000941	703	1	WASHING MACHINE, DOMESTIC	10	06/89	320	400	260
			KENMORE					

BUILDING TOTAL

ORIGINAL COST	38,456		
REPLACEMENT COST		43,863	
DEPRECIATED VALUE			32,149

INSURANCE AND PROPERTY ACCOUNTING REPORT
CITY OF BANDON
BANDON, OREGON

AS OF DATE: 04/29/2002

PROP : 400 SEWAGE TREATMENT
BLDG : 011 SLUDGE THICKENER

POLICY CODE : 0
INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #	STORAGE						
02000898	326	1	AIR COMPRESSOR, PORTABLE, 1 HP	15	06/99	241	249	209
			SANBORN M02EL1007.5 K344000					
02000899	381	1	BARREL PUMP, HAND CRANK STYLE	6	06/89	64	80	52
02000897	384	1	FLOOR JACK, 2 TON	10	06/89	120	149	96
			JET					
			BUILDING TOTAL					
			ORIGINAL COST			425		
			REPLACEMENT COST				478	
			DEPRECIATED VALUE					357

PROP : 400 SEWAGE TREATMENT POLICY CODE : 0
BLDG : 012 OPERATIONS BUILDING INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #	SHOP						
02000924	145	1	FLAMMABLE FILE CABINET, 2 DOOR, 30 GAL SECUREALL	25	06/89	306	383	248
02000903	186	1	VACUUM, SHOPVAC, 12 GAL GENIE 400PC	8	06/89	81	100	65
02000914	309	1	DRILL, CORDLESS, 3/8" DRIVE, 12 VOLT DEWALT DW953 68464	6	06/99	163	169	141
02000919	309	1	RECIPROCATING SAW, ELECTRIC MAKITA JR3000V 1387223E	6	06/89	120	149	96
02000920	309	1	CIRCULAR SAW, 7 1/4", WORM DRIVE SKILL HD77 HG-203284	6	06/89	144	179	116
02000912	310	1	WRENCH SET, HAND CRAFTSMAN	6	06/89	96	119	77
02000922	310	1	PIPE WRENCH, 36" RIDGID	6	06/89	85	105	68
02000904	311	1	IMPACT WRENCH, ELECTRIC, 1/2" DRIVE DEWALT DW291 5239	10	06/99	173	179	150
02000906	313	1	WELDER, A/C, 225 AMP LINCOLN 225	10	06/89	243	300	195
02000910	325	1	WORKBENCH CABINET, 3 DOOR, 4 DRAWER, 60X30	15	06/89	243	300	195
02000915	325	1	TOOLBOX, UPPER/LWR, 12 DRWR, LFT LD, BALL BARING, 26" CRAFTSMAN	15	06/89	1,215	1,500	975
Tag#	5294							
02000923	331	1	STEAM CLEANER, PRESSURE WASHER NORSTAR	10	06/99	2,249*	2,400	2,016
Tag#	5577							
02000911	332	1	BENCH GRINDER, 2 SIDE, 8" MASTERMAC 928	10	06/89	104	129	83
02000908	336	1	HOIST, 2 TON	10	06/89	266	329	213
02000909	338	1	VICE, 5X8, W/SHOP MADE WHEEL STAND	10	06/89	243	300	195
02000913	349	1	TOOL SET, SOCKET, 1/4, 3/8, 1/2" CRAFTSMAN	10	02/02	300	300	300
02000917	349	1	SOCKET SET, 1/2" DRIVE EVRCRAFT	10	06/89	101	125	81
02000921	349	1	TAP & DIE SET, IMPORT EXCELLENT	10	06/89	81	100	65

PROP : 400 SEWAGE TREATMENT POLICY CODE : 0
BLDG : 012 OPERATIONS BUILDING INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #	SHOP	(Cont.)					
02000916	349	1	PULLER SET, COMPLETE	10	06/89	1,134	1,400	910
			OTC 1182					
02000907	381	1	BATTERY CHARGER BOOSTER	6	06/89	201	249	161
			DAYTON 3Z633B					
02000918	387	1	SOCKET SET, 3/4" DRIVE	8	06/89	121	150	97
			IMPORT					
02000905	951	1	LAWN MOWER, WALK BEHIND, COMRCL, 21"	3	06/98	750*	850	688
Tag#	5576		JOHN DEERE 14SBS BF489543					

BUILDING TOTAL

ORIGINAL COST	8,419		
REPLACEMENT COST		9,815	
DEPRECIATED VALUE			7,135

INSURANCE AND PROPERTY ACCOUNTING REPORT
CITY OF BANDON
BANDON, OREGON

PROP : 400 SEWAGE TREATMENT
BLDG : 090 YARD

POLICY CODE : 0
INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #		SEWAGE PLANT YARD					
02000902	181	1	LADDER, EXTENSION, FIBERGLASS, 24'	10	06/89	201	249	161
02000900	349	1	SPILL CONTAINMENT CADDY, PLASTIC, 55 GAL DRUM JUSTRITE AK28901	10	06/89	445	550	357
02000901	941	1	SPRINKLER CANNON SUMMIT MAGNUM1000	10	06/89	540	675	438
			BUILDING TOTAL					
			ORIGINAL COST			1,186		
			REPLACEMENT COST				1,474	
			DEPRECIATED VALUE					956

INSURANCE AND PROPERTY ACCOUNTING REPORT
CITY OF BANDON
BANDON, OREGON

PROP : 400 SEWAGE TREATMENT
BLDG : 101 LIFT STATION, Fillmore

POLICY CODE : 0
INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #	FILLMORE						
02000981	804	1	WATER PIPING AND VALVE - LOT, MISC	40	06/93	12,891	14,990	10,642
02000980	876	2	WATER PUMP, VERTICAL TURBINE W/WIRING & CONTROLS,	50	15 06/93	120,000	*130,000	92,300
02000982	881	1	TELEMETRY UNIT	20	06/93	8,600	10,000	7,100

BUILDING TOTAL

ORIGINAL COST	141,491		
REPLACEMENT COST		154,990	
DEPRECIATED VALUE			110,042

INSURANCE AND PROPERTY ACCOUNTING REPORT
CITY OF BANDON
BANDON, OREGON

PROP : 400 SEWAGE TREATMENT
BLDG : 102 LIFT STATION, Johnson Creek

POLICY CODE : 0
INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM # JOHNSON CREEK							
02000983	876	2	WATER PUMP, SUBMERSIBLE W/WIRING & CONTROLS, 20 HP	15	06/82	4,000*	17,000	9,520

BUILDING TOTAL

ORIGINAL COST	4,000		
REPLACEMENT COST		17,000	
DEPRECIATED VALUE			9,520

PROP : 400 SEWAGE TREATMENT POLICY CODE : 0
BLDG : 103 LIFT STATION, Jetty INSURABLE EQUIPMENT

ASSET#	CLASS	QTY	DESCRIPTION / MANFR-MODEL-SERIAL	LIFE	AQDT	ORIG	REPL	DEPR
	ROOM #	JETTY						
02000986	804	1	WATER PIPING AND VALVE - LOT, MISC	40	06/95	4,140	4,500	3,330
02000984	876	2	WATER PUMP, SUBMERSIBLE W/WIRING & CONTROLS, 5 HP	15	06/95	15,640	17,000	12,580
02000985	876	1	WATER PUMP, SUBMERSIBLE W/WIRING & CONTROLS, 1 HP	15	06/95	2,760	3,000	2,220

BUILDING TOTAL

ORIGINAL COST	22,540		
REPLACEMENT COST		24,500	
DEPRECIATED VALUE			18,130

PROPERTY TOTAL

ORIGINAL COST	216,517		
REPLACEMENT COST		252,120	
DEPRECIATED VALUE			178,289

APPENDIX

D

Table Lists - Life Exp. & Depreciation Page 3 City of Bandon DBM

Water Pipe Inventory (mary/projects/4501.00/water and storm inventory) Dyer

Asset No	Description	Department	Date Acquired	Cash Cost	Current Book Value	Classification	Accumulated Depreciation	Life	Current Year Depreciation
2001115	HEADSTART BLDG-CONST IN PROG	HEADSTART	06/30/2002	483,713.63	477,650.64	BUILDINGS	6,062.99	80	6,046.42
2001116	FIRE STATION, Volunteer	FIRE DEPARTMENT	06/01/1969	34,201.00	33,516.98	BUILDINGS	684.02	100	342.01
2001117	PUBLIC WORKS / ELECTRIC SHOP	PUBLIC WORKS	06/01/1969	58,518.00	18,703.31	BUILDINGS	39,814.69	50	1,170.36
2001123	WORKSHOP, Community Bldg / Sen	CITY PARK	06/01/1985	26,805.00	10,714.66	BUILDINGS	16,090.34	30	893.50
2001125	EQUIPMENT PARKING SHED, Public	PUBLIC WORKS	06/01/1988	62,555.00	44,149.74	BUILDINGS	18,405.26	51	1,226.57
2001134	DS 2555 SAVIN COPIER	FINANCE DEPT	04/10/2003	13,005.00	12,639.79	BUSINESS MACHINES	365.21	8	365.21
2001136	1991 WHITE GMC VACTOR TRUCK	SEWER COLLECTION	05/09/2003	45,000.00	44,564.38	MACHINERY & EQUIPMEN	435.62	15	435.62
2001139	CITY PARK BALL FIELD FENCE	PARKS DEPARTMENT	06/30/2003	9,575.00	9,573.69	MACHINERY & EQUIPMEN	1.31	20	1.31
2001140	UPGRADE TO COMMUNITY CENTER	CITY PARK	06/30/2003	38,213.74	38,210.25	BUILDINGS	3.49	30	3.49
2001141	SKATEBOARD PARK	CITY PARK	06/30/2003	14,919.68	14,916.95	MACHINERY & EQUIPMEN	2.73	15	2.73
2001142	UPGRADE TO BALL PARK	CITY PARK	06/30/2003	9,575.00	9,573.69	MACHINERY & EQUIPMEN	1.31	20	1.31
2001143	HEADSTART BLDG-COMPLETION	HEADSTART	06/30/2003	8,483.43	8,483.14	BUILDINGS	.29	80	.29
2001148	CASELLE SOFTWARE	FINANCE DEPT	03/01/1999	35,380.00	30,662.66	OFFICE EQUIP & FURN	4,717.34	15	2,358.67
2001153	DOG EXCERCISE PARK	CITY PARK	06/30/2003	5,876.75	5,875.94	MACHINERY & EQUIPMEN	.81	20	.81
2001156	CITY SHOP-CONST. IN PROGRESS	STREET DEPT	06/30/1999	13,251.73	13,251.73	BUILDINGS	.00	0	.00
2001159	CITY SHOP-CONST. IN PROGRESS	STREET DEPT	06/30/2000	39,554.89	39,554.89	BUILDINGS	.00	0	.00
2001162	CITY SHOP-CONST. IN PROGRESS	STREET DEPT	06/30/2001	21,654.98	21,654.98	BUILDINGS	.00	0	.00
2001165	UPGRADE LIGHTING-CITY HALL	ADMIN DEPARTMENT	06/05/2003	12,918.81	12,826.79	BUILDINGS	92.02	10	92.02
2001167	CITY SHOP-CONST. IN PROGRESS	STREET DEPT	06/30/2003	10,293.75	10,293.75	BUILDINGS	.00	0	.00
2001173	CITY HALL ROOF	ADMIN DEPARTMENT	12/30/2002	59,161.16	57,678.08	BUILDINGS	1,483.08	20	1,483.08
2001176	EQUIPMENT SHED ROOF UPGRADE	PUBLIC WORKS	04/09/2003	7,070.00	6,989.62	BUILDINGS	80.38	20	80.38
5000001	STREET-2 LANE, CITY STANDARD	STREET DEPT	07/01/1998	340,000.00	255,000.00	STREETS, PAVED	85,000.00	20	17,000.00
5000002	STREETS-PAVED, 2 LANE	STREET DEPT	07/01/1986	42,708,869.00	6,388,778.76	STREETS, PAVED	36,320,090.24	20	2,135,443.45
5000003	STREET-PAVED NOT CITY STANDARD	STREET DEPT	06/30/1986	935,000.00	467,243.82	STREETS, PAVED	467,756.18	12	.00
5000004	GRAVEL STREETS GRADED &DRAINEI	STREET DEPT	07/01/1980	13,155,780.00	7,627,468.94	STREETS, GRAVEL	5,528,311.06	20	.00
5000005	PAVING UPGRADE/GRAVEL STREETS	STREET DEPT	06/30/2002	511,597.59	468,847.66	STREETS, PAVED	42,749.93	12	42,633.13
5000006	11TH STREET SW SIDEWALKS	STREET DEPT	10/07/2002	12,381.00	11,928.16	STREETS, PAVED	452.84	20	452.84
5000007	PAVING UPGRADE/GRAVEL STREETS	STREET DEPT	06/30/2003	613,922.12	613,781.96	STREETS, PAVED	140.16	12	140.16
7500001	STORM DRAIN PIPE INVENTORY	STREET DEPT	07/01/2002	2,544,768.00	2,465,244.00	DISTRIBUTION SYSTEM	79,524.00	32	79,524.00
				64,156,513.56	20,981,373.36		43,175,140.20		2,358,859.18

TS.00001

STORM DRAIN PIPE INVENTORY

PIPE SIZE	TYPE OF PIPE	TOTAL LENGTH	CONSTRUCTION COST NEW/L.F	ESTIMATED VALUE NEW/L.F.	LIFE EXPECTENCY	EXPECTED REMAINING LIFE	ANNUAL DEPRECIATION	TOTAL ESTIMATED VALUE
4"	PVC	279	$19.40	$5,413	60	50	$90	$4,511
4"	TYPE UNK.	503	$19.40	$9,758	50	25	$195	$4,879
6"	AC	49	$18.60	$911	40	15	$23	$342
6"	CI	209	$23.30	$4,870	50	30	$97	$2,922
6"	CMP	247	$18.60	$4,594	15	10	$306	$3,063
6"	CONC	191	$27.90	$5,329	60	30	$89	$2,664
6"	HDPE	87	$23.30	$2,027	60	55	$34	$1,858
6"	PVC	505	$23.30	$11,767	60	50	$196	$9,805
6"	TYPE UNK.	1,117	$22.50	$25,133	50	25	$503	$12,566
8"	AC	98	$23.30	$2,283	40	15	$57	$856
8"	CI	246	$29.10	$7,159	50	30	$143	$4,295
8"	CMP	896	$23.30	$20,877	15	10	$1,392	$13,918
8"	CONC	723	$34.90	$25,233	60	30	$421	$12,616
8"	FRENCH DRAIN	450	$34.90	$15,705	30	10	$524	$5,235
8"	HDPE	507	$29.10	$14,754	60	55	$246	$13,524
8"	PVC	1,803	$29.10	$52,467	60	50	$874	$43,723
8"	TYPE UNK.	2,707	$28.10	$76,067	50	25	$1,521	$38,033
10"	AC	193	$27.90	$5,385	40	15	$135	$2,019
10"	CMP	159	$27.90	$4,436	15	10	$296	$2,957
10"	CONC	372	$41.90	$15,587	60	30	$260	$7,793
10"	HDPE	545	$34.90	$19,021	60	55	$317	$17,435
10"	PVC	2,079	$34.90	$72,557	60	50	$1,209	$60,464
10"	TYPE UNK.	1,980	$33.50	$66,330	50	25	$1,327	$33,165
12"	CI	159	$38.80	$6,169	50	30	$123	$3,702
12"	CMP	5,934	$31.00	$183,954	15	10	$12,264	$122,636
12"	CONC	862	$46.50	$40,083	60	30	$668	$20,042
12"	HDPE	3,928	$38.80	$152,406	60	55	$2,540	$139,706
12"	PVC	4,417	$38.80	$171,380	60	50	$2,856	$142,816
12"	TYPE UNK.	7,198	$38.80	$279,282	50	25	$5,586	$139,641
15"	CMP	749	$34.70	$25,990	15	10	$1,733	$17,327
15"	HDPE	4,139	$43.40	$179,633	60	55	$2,994	$164,663
15"	PVC	174	$43.40	$7,552	60	50	$126	$6,293

STORM DRAIN PIPE INVENTORY CONTINUED

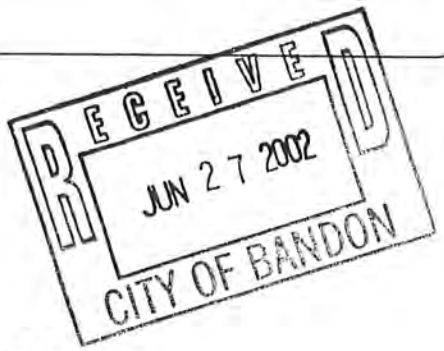
PIPE SIZE	TYPE OF PIPE	TOTAL LENGTH	CONSTRUCTION COST NEW/L.F	ESTIMATED VALUE NEW/L.F.	LIFE EXPECTENCY	EXPECTED REMAINING LIFE	ANNUAL DEPRECIATION	TOTAL ESTIMATED VALUE
18"	CI	145	$48.00	$6,960	50	30	$139	$4,176
18"	CMP	5,343	$38.40	$205,171	15	10	$13,678	$136,781
18"	CONC	1,075	$57.60	$61,920	60	30	$1,032	$30,960
18"	HDPE	2,653	$48.00	$127,344	60	55	$2,122	$116,732
18"	PVC	81	$48.00	$3,888	60	50	$65	$3,240
18"	RCP	43	$57.60	$2,477	60	40	$41	$1,651
18"	TYPE UNK.	2,846	$48.00	$136,608	50	25	$2,732	$68,304
21"	TYPE UNK.	75	$58.50	$4,388	50	25	$88	$2,194
24"	CMP	8,154	$55.10	$449,285	15	10	$29,952	$299,524
24"	CONC	2,213	$82.70	$183,015	60	30	$3,050	$91,508
24"	HDPE	365	$68.90	$25,149	60	55	$419	$23,053
24"	PVC	384	$68.90	$26,458	60	50	$441	$22,048
24"	TYPE UNK.	1,549	$68.90	$106,726	50	25	$2,135	$53,363
30"	CMP	1,125	$64.20	$72,225	15	10	$4,815	$48,150
30"	PVC	100	$80.30	$8,030	60	50	$134	$6,692
30"	TYPE UNK.	852	$75.00	$63,900	50	25	$1,278	$31,950
36"	CMP	5,947	$73.30	$435,915	15	10	$29,061	$290,610
36"	CONC	98	$110.00	$10,780	60	30	$180	$5,390
36"	TYPE UNK.	1,196	$91.60	$109,554	50	25	$2,191	$54,777
48"	CMP	2,091	$120.80	$252,593	15	10	$16,840	$168,395
96"	CMP	149	$300.00	$44,700	15	10	$2,980	$29,800
							TOTAL=	$2,544,768

APPENDIX

Road & Bridge Report / June 30, 2002/ by Valuations Northwest, Inc.

CITY OF BANDON

BANDON, OREGON



ROAD & BRIDGE REPORT

Prepared

June 30, 2002

by

VALUATIONS NORTHWEST, Inc.

Boise, Idaho

VALUATIONS NORTHWEST, Inc.

Professional Appraisal Services

Telephone: (208) 375-1284 / 1-800-624-9993 / FAX: (208) 375-7066

17 North Orchard St., Boise, Idaho 83706-1620

June 25, 2002

Ms. Chele Gamble, Finance Director
City of Bandon
PO Box 67
Bandon, OR 97411

Dear Ms. Gamble:

According to your instructions, we have conducted an appraisal/analysis of the certain **Infrastructure** for the City of Bandon, for the purpose of reporting original costs for general accounting and property records.

The results of this valuation include **Streets, Sewer Piping, and Water Piping,** and are presented in the attached report.

The total appraised values of City of Bandon, as of June 30, 2002, are as follows:

Original Cost	**$ 71,700,126.30**
Depreciation Reserve	**$ 35,914,504.81**
Unrecovered Cost	**$ 35,785,623.34**
Annual Depreciation	**$ 2,141,584.72**

Information relative to construction details and acquisition dates used in this report have been provided by City of Bandon. When original costs are not available, we have computed estimated original cost by determining current replacement cost and then reverse-indexing that cost to the date of acquisition. Although the results of these calculations are an estimate, this method of determining values is accepted by standard accounting practices.

It has been a pleasure to be of service to you. If we can be of further assistance, please call or write.

Sincerely,
Valuations Northwest, Inc.

Roy J. Viken, President

Road and Bridge Report

City of Bandon, Oregon

CITY OF BANDON

BANDON, OREGON

ROAD VALUATION

Prepared

June 30, 2002

by

VALUATIONS NORTHWEST, Inc.

Boise, Idaho

60-00001

Location: Group A

Type/Class: Hot mix asphalt pavement

Streets, Paved, 2 lane, City Standard

Streets constructed in the last 4 years to current full City Standards which includes 2" of asphalt, 10" gravel base, curbs, gutters, and sidwalks, generally toa width of 28'. Some

Tag:	Alt Tag:	
LF, SF or Miles / # Lanes:	1.29	2.00
Year Built or Remanuf:	1998	16
Est Replacement Cost:	$1,935,000.00	

Life	Acquisition Date	Original Cost	Depr Resv	Unrec Cost	Annual Depr
30	07/01/1998	$340,000.00	$45,333.32	$294,666.58	$11,333.33

60-00002

Location: Group B

Type/Class: Hot mix asphalt pavement

Streets, Paved, 2 lane, not to current city standards

Streets constructed in the last 5-20 years, not to current city cstandards, generally to a width of 28' with curb and gutter and some sidewalks.

Tag:	Alt Tag:	
LF, SF or Miles / # Lanes:	248.95	2.00
Year Built or Remanuf:	1986	0
Est Replacement Cost:	$373,425,000.00	

Life	Acquisition Date	Original Cost	Depr Resv	Unrec Cost	Annual Depr
30	07/01/1986	$42,721,250.00	$22,784,666.72	$19,936,583.38	$1,424,041.67

60-00003

Location: Group C

Type/Class: Hot mix asphalt pavement

Streets, Paved, 2 land, not to current city standards

Streets consturcted inteh last 5-20 years, not to current city standards, generally to a width of 20' or less w/no curb or gutter and no sidewalks.

Tag:	Alt Tag:	
LF, SF or Miles / # Lanes:	7.08	2.00
Year Built or Remanuf:	1986	0
Est Replacement Cost:	$10,620,000.00	

Life	Acquisition Date	Original Cost	Depr Resv	Unrec Cost	Annual Depr
30	07/01/1986	$935,000.00	$498,666.72	$436,333.38	$31,166.67

60-00004

Location: Group D

Type/Class: Gravel graded & drained

Streets, gravel w/few imporvents, no sidewalks

Gravel streets with few improvements, no sidewalks, curbs or gutters

Tag:	Alt Tag:	
LF, SF or Miles / # Lanes:	249.16	2.00
Year Built or Remanuf:	1980	0
Est Replacement Cost:	$298,992,000.00	

Life	Acquisition Date	Original Cost	Depr Resv	Unrec Cost	Annual Depr
50	07/01/1980	$13,155,780.00	$5,788,543.20	$7,367,236.80	$263,115.60

Road Totals:

	Original Cost	Depr Resv	Unrec Cost	Annual Depr
Total Original Cost:	$57,152,030.00			
Total Depreciation Reserve:		$29,117,209.96		
Total Unrecovered Cost:			$28,034,820.14	
Total Annual Depreciation:				$1,729,657.27