Water, Wastewater & Stormwater Utility Rate Study

Volume II

System Development Charges

Prepared For The

City of Cottage Grove

Cottage Grove, Oregon

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SECTION I
INTRODUCTION

In March 2008, the City of Cottage Grove (City) retained FCS GROUP to perform a comprehensive study of rates and system development charges (SDCs) for its water, wastewater, and stormwater utilities, as well as system development charges for its parks and transportation services. The purpose of the study was to evaluate fiscal policies, revenue requirements, cost-of-service findings, rate designs, and SDCs for each service.

A. STUDY ELEMENTS

The major scope elements of the study included:

1. Develop capital cost bases for both the rate and SDC analyses. We worked with sub-consultants DKS Associates, Don Ganer & Associates, and Murray, Smith & Associates. DKS Associates and Don Ganer & Associates performed the cost estimates for the transportation and park systems, respectively. Murray, Smith & Associates performed the cost estimates for the water, wastewater, and stormwater systems.
2. Analyze water, wastewater, stormwater, transportation, and parks system development charges and establish a schedule of updated charges for each service.
3. Develop a revenue requirement analysis for the water, wastewater, and stormwater utilities to determine the total amount of rate revenue needed to meet each utility's financial obligations, including capital, operating, and policy-driven commitments, for the study period.
4. Conduct cost of service analyses by identifying utility costs as they relate to various components of the system(s) and allocate those costs to customer classes based on each customer class's relative usage of and demand for the system(s).
5. Develop rate structures for each utility that recover total utility costs and take into consideration the cost of service results, pricing objectives such as conservation-based water rate structures, and other practical considerations.
6. Present study findings and recommendations to the City Council and public as requested.
7. Document study results in a project report, including technical appendices containing the detailed analyses.

B. STUDY PROCESS

The study process involved several iterations of analyses and refinements to the SDC calculations. Workshops were held with City staff and the City Council to discuss policy issues and options, review findings, validate input parameters, and receive direction.

Final study findings incorporated recommended policies, and most recent available data.

C. Report Organization

As requested by City staff, we prepared the study report in two separate volumes. This volume provides an overview of the methodologies, and summarizes final study findings for the water, wastewater, stormwater, parks, and transportation SDC analyses. Volume II is organized as follows. After the Section I Introduction, Section II explains the system development charge calculation methodology followed. SDC study findings for the water, wastewater, stormwater utilities, and parks and transportation services are presented in Sections III, IV, V, VI, and VII respectively. The spreadsheet model outputs and presentation materials are provided at the end of the report in Appendices I and II.

Volume I provides an overview of the methodologies used, and summarizes final study findings and recommendations for the water, wastewater, and stormwater rate analyses. This volume was delivered under separate cover.

SECTION II
METHODOLOGY

A system development charge is a one-time fee imposed on new development and some types of re-development at the time of development. The fee is intended to recover a fair share of the costs of existing and planned facilities that provide capacity to serve new growth. Oregon Revised Statute (ORS) 223.297 - 223.314 defines SDCs and specifies how they shall be calculated, applied, and accounted for. By statute, an SDC is either one of or the sum of two components:

- a **reimbursement fee**, designed to recover costs associated with capital improvements *already constructed or under construction*, and
- an **improvement fee**, designed to recover costs associated with capital improvements *to be constructed in the future*.

The reimbursement fee methodology must be based on "the value of unused capacity available to future system users or the cost of the existing facilities", and must further account for prior contributions by existing users and gifted and grant-funded facilities. The calculation must also "promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities." Reimbursement fee proceeds may be spent on any capital improvements related to the systems for which the SDC applied. Water SDCs must be spent on water improvements, wastewater SDCs must be spent on wastewater improvements, etc.

The improvement fee methodology must include only the cost of projected capital improvements needed to increase system capacity for future users. In other words, the cost(s) of planned projects that correct existing deficiencies, or do not otherwise increase capacity for future users, may not be included in the improvement fee calculation. Improvement fee proceeds may be spent only on capital improvements, or portions thereof, which increase the capacity of the systems for which they were applied.

A. REIMBURSEMENT FEE METHODOLOGY

The calculation of the reimbursement fee is fairly straightforward under the approach taken. In short, it is the dollar cost of unused, available, system capacity divided by the capacity it will serve. The unit of capacity used becomes the basis of the fee. In addition to the cost or value of the system, Oregon law (ORS 223.304) requires that the reimbursement fee methodology also incorporate the following additional factors:

- "Ratemaking principles employed to finance publicly owned capital improvements", taken to mean that the fees must be calculated to equitably recover appropriate costs;
- "Prior contributions by existing users", taken to mean that the cost of contributed assets should not be included in the reimbursement fee basis;
- "Gifts or grants from federal or state government or private persons", taken to mean that gifted or grant-funded assets should not be included in the reimbursement fee basis; and

- "Other relevant factors identified by the local government imposing the fee".

Finally, the methodology must promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities.

B. IMPROVEMENT FEE METHODOLOGY

The improvement fee calculation, like that of the reimbursement fee, is straightforward. In short, it is the total dollar cost of capacity-increasing capital projects divided by the capacity they will serve. Again, the unit of capacity used becomes the basis of the fee. The overriding issue to consider in the improvement fee calculation is the identification and separation of capacity increasing capital costs.

C. CALCULATION SUMMARY

In general, an SDC is calculated by adding the applicable reimbursement fee component to the applicable improvement fee component. Each separate component is calculated by dividing the eligible cost by the appropriate measure of growth in capacity. The unit of capacity used becomes the basis of the charge. A sample calculation is shown below.

Reimbursement Fee		**Improvement Fee**		**SDC**
Eligible cost of capacity in existing facilities / Growth in system capacity demand	+	Eligible cost of planned capacity-increasing capital improvements / Growth in system capacity demand	=	SDC ($ per unit)

D. SDC (IMPROVEMENT FEE) CREDITS

The law requires that credits, for the construction of qualified public improvements, be provided against the improvement fee. Oregon Revised Statute 223.304 states that, at a minimum, credits be provided against the improvement fee for

> "the construction of a qualified public improvement. A 'qualified public improvement' means a capital improvement that is required as a condition of development approval, identified in the plan and list adopted pursuant to ORS 223.309 and either:
>
> (a) Not located on or contiguous to property that is the subject of development approval; or
>
> (b) Located in whole or in part on or contiguous to property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related."

The law further states that credits

> "may be granted only for the cost of that portion of such improvement that exceeds the local government's minimum standard facility size or capacity needed to serve the particular development project or property."

We recommend that the City of Cottage Grove maintain / establish a credit policy that meets minimum legal requirements, except in the case of granting credits in excess of the improvement

fee when warranted. We believe that it is important for a city to retain as much control as possible over the prioritization and implementation of its capital plan(s). These plans are created to address total system needs – not just the needs of growth. Without control over how and when those needs are addressed, the re-prioritization of projects over time can leave important city needs unmet. To avoid this outcome, credits should:

- be for the portion of the actual, estimated, or agreed-upon cost of capacity in excess of that needed to serve the particular development;
- include no cash reimbursement; and
- be for planned projects only.

E. INDEXING CHARGE FOR INFLATION

Oregon law (ORS 223.304) also allows for the periodic indexing of system development charges for inflation, as long as the index used is

> "(A) A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property or a combination of the three;
>
> (B) Published by a recognized organization or agency that produces the index or data source for reasons that are independent of the system development charge methodology; and
>
> (C) Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order."

We recommend that the City of Cottage Grove index its charges to the **Engineering News Record** (ENR) Construction Cost Index (CCI) for the City of Seattle, and adjust the charges annually as per that index. There is no comparable Oregon-specific index.

SECTION III
WATER SDC

The City's existing water SDC is $30.39 per water fixture unit. Assuming a typical single family residential customer with ¾" meter has 30 water fixture units; this customer would pay a $911.70 system development charge under the existing SDC structure.

A. CAPACITY BASIS

We calculated water SDCs using two alternative charge bases; meter capacity equivalents (MEs) and fixture units. In order to estimate the number of MEs and fixture units – the denominators in both reimbursement and improvement fee calculations – the following approach was taken:

- Based on summary level customer data provided by City staff, the City had 3,635 water accounts and 4,678 meter capacity equivalents as of 2008. Using Uniform Plumbing Code fixture unit estimates for varying water pipe and meter sizes, it was estimated that the City had 142,771 water fixture units as of 2008.
- During the 20-year study period, the City's annual growth rate is projected to be 1.37% (per the 2005 Buildable Land Analysis Update).
- The initial total number of MEs and fixture units were grown proportionately with forecasted growth. As a result, it was estimated that the water utility's customer base would grow from 4,678 MEs to 6,140 MEs, resulting in projected growth of 1,463 MEs. Similarly, the existing customer base of 142,771 fixture units would grow to 187,426 fixture units, resulting in a projected growth of 44,655 fixture units. It is important to note that forecasted growth in meter capacity equivalents and/or fixture units may not occur proportionately with City's projected growth. Absent specific projections, however, this was a necessary simplifying assumption.

B. REIMBURSEMENT FEE COST BASIS

In order to estimate the cost of unused capacity in the existing water system – the numerator in the reimbursement fee calculation – the following approach was taken.

- Working closely with City staff, Murray, Smith and Associates (MSA) performed the cost estimates for the water, wastewater, and stormwater systems, and calculated the unused portion of the total capacity of each utility's existing fixed assets. The total cost of the water utility fixed assets was $6,929,391 as of June 30, 2007. It was determined that there was no unused capacity in the assets that were included in the fixed assets listing.
- In contrast, the City has been investing in Row River Water Treatment Plant and Upgrade. These investments were not reflected in the fixed asset listing, therefore added as construction-work-in-progress (CWIP). The total cost of the investment was $10,502,276, and with this investment total plant capacity reached to 6.0 million gallons a day (MGD). Per City staff, the City's existing summer peak usage was 3.0 MGD, hence the Row River Water Treatment Plant had 50%, or $5,251,138 unused capacity.

- The utility's FY 2008/2009 and FY 2009/2010 budgeted year-end estimated capital expenditures were also treated as construction-work-in-progress (CWIP) and added to the utility's fixed assets. Total cost of these construction projects was $2,205,977. The portion financed from the utility's operating fund ($2,110,035) was assumed to be benefiting only existing customers and assigned as used capacity. The remaining $95,942 was financed from the utility's system development charge fund. It was assumed to be growth related and designated as unused capacity.
- Hence, the total cost of the water utility fixed assets was $19,637,644 at the end of FY 2009/2010. The total value of unused capacity was $5,347,080, or 27.2% of the total fixed assets.
- The utility's outstanding debt principal balance was $11,241,850. Prorating with the unused capacity's share in the utility's total asset base (i.e. 27.2%), it is estimated that $3,061,012 of this amount is related to the unused capacity. Since the utility did not fully pay for the unused capacity available yet, and growth would pay for the related portion of the outstanding debt through rates, this amount was deducted from the total value of the unused capacity.
- Hence, the total reimbursement fee cost basis is $2,286,068 (i.e. the total value of unused capacity net of a proportionate share of outstanding debt principal balance; $5,347,080 less $3,061,012).

C. Reimbursement Fee Calculation

The reimbursement fees under the two alternative charge bases were then calculated as follows. The net cost basis of $2,286,068 was divided by total forecasted growth in the capacity bases (1,463 meter equivalents, or 44,655 fixture units). The calculated fee per meter equivalent is $1,563, and per fixture unit is $51.

D. Improvement Fee Cost Basis

The improvement fee cost basis is calculated as follows:

- Working closely with City staff, Murray, Smith and Associates (MSA) provided the 20-year capital improvement project list and allocation of project costs between existing needs and growth (i.e. SDC eligible).
- Capital improvement projects budgeted for FY 2010/2011 were also added to the list provided. That portion of costs that would be financed from the utility's operating fund was allocated to existing customers only. The remaining portion that would be financed from the SDC fund was allocated to growth.
- The estimated total cost of capital improvement projects, including the ones budgeted for FY 2010/2011, is $18,486,746.
- The total of project costs identified as capacity increasing for future users, and hence SDC eligible, was $7,786,309.
- At the end of FY 2009/2010, the water SDC fund balance was $80,118. This amount was credited against the SDC eligible project costs to both (1) recognize that the fund balance

is available for spending on the project list and (2) prevent new users from paying for those projects twice.

- The resulting net total of $7,706,191 is the improvement fee cost basis.

E. Improvement Fee Calculation

The improvement fees under the two alternative charge bases were then calculated as follows. The net cost basis of $7,706,191 was divided by total forecasted growth in the capacity bases (1,463 meter equivalents, or 44,655 fixture units). The calculated fee per meter equivalent is $5,267, and per fixture unit is $173.

F. Recommended System Development Charge

The water SDC is the sum of the reimbursement fee and the improvement fee, adjusted by an administrative cost recovery factor of 1.61%. The administrative cost recovery factor was derived by dividing annual SDC program accounting and administrative costs, including the amortized cost of this study, by forecasted annual SDC revenues.

Using the number of meter equivalents as the charge basis, the water SDC is calculated to be $6,940 per meter equivalent; the sum of the $1,563 reimbursement fee, the $5,267 improvement fee, and a 1.61% or $110 administrative cost recovery factor.

Using the number of fixture units as the charge basis, the water SDC is calculated to be $228 per fixture unit; the sum of the $51 reimbursement fee, the $173 improvement fee, and a 1.61% or $4 administrative cost recovery factor. Assuming a typical single family residential customer with a ¾" meter has 30 water fixture units, a new single family residential customer would pay a $6,840 system development charge under a per fixture unit structure.

Schedules of the water SDCs by meter size under both approaches are provided below in **Exhibit 1**.

Exhibit 1 – Schedules of Water SDCs by Meter Size

Meter Size	Meter Equivalency-Based SDC		Fixture Units-Based SDC	
	Flow Factors [1]	SDCs	Estimated Average Fixture Units [2]	SDCs
3/4" x 5/8"	1	$ 6,940	30	$ 6,840
1"	2.5	17,350	39	8,892
1-1/2"	5	34,700	151	34,428
2"	8	55,520	370	84,360
3"	16	111,040	500	114,000
4"	25	173,500	750	171,000
6"	50	347,000	1000	228,000
8"	80	555,200	1250	285,000

[1] American Waterworks Association (AWWA).

[2] Uniform Plumbing Code; Table 6-5 Fixture Unit Table for Determining Water Pipe & Meter Sizes.

SECTION IV
WASTEWATER SDC

The City's existing wastewater SDC is $45.61 per sewer fixture unit. Assuming a typical single family residential customer with ¾" meter has 23 sewer fixture units; this customer would pay $1,049.03 system development charge under the existing SDC structure.

A. CAPACITY BASIS

We calculated wastewater SDCs using two alternative charge bases; meter capacity equivalents (MEs) and fixture units. In order to estimate the number of MEs and fixture units – the denominators in both reimbursement and improvement fee calculations – the following approach was taken:

- Based on summary level customer data provided by City staff, the City had 3,470 wastewater accounts and 4,275 meter capacity equivalents as of 2008. Using Uniform Plumbing Code fixture unit estimates for varying water pipe and meter sizes, it was estimated that the City had 105,220 wastewater fixture units as of 2008.
- During the 20-year study period, the City's annual growth rate is projected to be 1.37% (per the 2005 Buildable Land Analysis Update).
- The initial total number of MEs and fixture units were grown proportionately with forecasted growth. As a result, it was estimated that the wastewater utility's customer base would grow from 4,275 MEs to 5,612 MEs, resulting in projected growth of 1,337 MEs. Similarly, the existing customer base of 105,220 fixture units would grow to 138,130 fixture units, resulting in a projected growth of 32,910 fixture units. It is important to note that forecasted growth in meter capacity equivalents and/or fixture units may not occur proportionately with City's projected growth. Absent specific projections, however, this was a necessary simplifying assumption.

B. REIMBURSEMENT FEE COST BASIS

In order to estimate the cost of unused capacity in the existing wastewater system – the numerator in the reimbursement fee calculation – the following approach was taken.

- Working closely with City staff, Murray, Smith and Associates (MSA), performed the cost estimates for the water, wastewater, and stormwater systems, and calculated the unused portion of the total capacity of each utility's existing fixed assets. The total cost of the wastewater utility fixed assets was $15,108,507 as of June 30, 2007. It was determined that there was no unused capacity in the assets that were included in the fixed assets listing, except the wastewater treatment plant.
- The total cost of the wastewater treatment plant was $11,065,516. Per City staff, there was available capacity in the treatment plant to serve projected 20-year growth. The share of projected growth in the total capacity base at the end of 20-year study period was

estimated to be 23.8%. Hence, the recoverable cost of unused capacity in the plant was $2,636,386.

- The utility's FY 2008/2009 and FY 2009/2010 budgeted year-end estimated capital expenditures were also treated as construction-work-in-progress (CWIP) and added to the utility's fixed assets. Total cost of these construction projects was $559,399. The portion financed from the utility's operating fund ($466,299) was assumed to be benefiting only existing customers and assigned as used capacity. The remaining $93,100 was financed from the utility's system development charge fund; and it was assumed to be growth related and designated as unused capacity.
- Hence, the total cost of the wastewater utility fixed assets was $15,667,906 at the end of FY 2009/2010. The total value of unused capacity was $2,729,486, or 17.4% of the total fixed assets.
- The utility's outstanding debt principal balance was $10,386,741. Prorating with the unused capacity's share in the utility's total asset base (i.e. 17.4%), it is estimated that $1,809,461 of this amount is related to the unused capacity. Since the utility did not fully pay for the unused capacity available yet, and growth would pay for the related portion of the outstanding debt through rates, this amount was deducted from the total value of the unused capacity.
- Hence, the total reimbursement fee cost basis is $920,025 (i.e. the total value of unused capacity net of a proportionate share of outstanding debt principal balance; $2,729,486 less $1,809,461).

C. Reimbursement Fee Calculation

The reimbursement fees under the two alternative charge bases were then calculated as follows. The net cost basis of $920,025 was divided by total forecasted growth in the capacity bases (1,337 meter equivalents, or 32,910 fixture units). The calculated fee per meter equivalent is $688, and per fixture unit is $28.

D. Improvement Fee Cost Basis

The improvement fee cost basis is calculated as follows:

- Working closely with City staff, Murray, Smith and Associates (MSA) provided the 20-year capital improvement project list and allocation of project costs between existing needs and growth (i.e. SDC eligible).
- Capital improvement projects budgeted for FY 2010/2011 were also added to the list provided. That portion of costs that would be financed from the utility's operating fund was allocated to existing customers only. The remaining portion that would be financed from the SDC fund was allocated to growth.
- The estimated total cost of capital improvement projects, including the ones budgeted for FY 2010/2011, is $6,323,087.
- The total of project costs identified as capacity increasing for future users, and hence SDC eligible, was $917,059.

- At the end of FY 2009/2010, the wastewater SDC fund balance was $343,340. This amount is credited against the SDC eligible project costs to both (1) recognize that the fund balance was available for spending on the project list and (2) prevent new users from paying for those projects twice.
- The resulting net total of $573,719 is the improvement fee cost basis.

E. IMPROVEMENT FEE CALCULATION

The improvement fees under the two alternative charge bases were then calculated as follows. The net cost basis of $573,719 was divided by total forecasted growth in the capacity bases (1,337 meter equivalents, or 32,910 fixture units). The calculated fee per meter equivalent is $429, and per fixture unit is $17.

F. RECOMMENDED SYSTEM DEVELOPMENT CHARGE

The wastewater SDC is the sum of the reimbursement fee and the improvement fee, adjusted by an administrative cost recovery factor of 1.61%. The administrative cost recovery factor was derived by dividing annual SDC program accounting and administrative costs, including the amortized cost of this study, by forecasted annual SDC revenues.

Using the number of meter equivalents as the charge basis, the wastewater SDC is calculated to be $1,135 per meter equivalent; the sum of the $688 reimbursement fee, the $429 improvement fee, and a 1.61% or $18 administrative cost recovery factor.

Using the number of fixture units as the charge basis, the wastewater SDC is calculated to be $46 per fixture unit; the sum of the $28 reimbursement fee, the $17 improvement fee, and a 1.61% or $1 administrative cost recovery factor. Assuming a typical single family residential customer with a ¾" meter has 23 water fixture units, a new single family residential customer would pay a $1,058 system development charge under a per fixture unit structure.

Schedules of the wastewater SDCs by meter size under both approaches are provided below in **Exhibit 2**.

Exhibit 2 – Schedules of Wastewater SDCs by Meter Size

Meter Size	Meter Equivalency-Based SDC		Fixture Units-Based SDC	
	Flow Factors [1]	SDCs	Estimated Average Fixture Units [2]	SDCs
3/4" x 5/8"	1	$ 1,135	23	$ 1,058
1"	2.5	2,838	39	1,794
1-1/2"	5	5,675	151	6,946
2"	8	9,080	370	17,020
3"	16	18,160	500	23,000
4"	25	28,375	750	34,500
6"	50	56,750	1000	46,000
8"	80	90,800	1250	57,500

[1] American Waterworks Association (AWWA).

[2] Uniform Plumbing Code; Table 6-5 Fixture Unit Table for Determining Water Pipe & Meter Sizes.

SECTION V
STORMWATER SDC

The City's existing stormwater SDC is $1,254.96 per single family dwelling unit (SFDU), and $10,458.10 per impermeable acre for all other customers.

A. CAPACITY BASIS

Under the proposed approach, single family residential customers would be charged based on the estimated average amount of impervious surface area per developed single family residential parcel, commonly referred to as an equivalent service unit or ESU. All other customer types would be charged based on actual measured impervious surface area by parcel, expressed as the number of ESUs on the parcel.

The term impervious surface area refers to hard surface area that prevents or slows water permeation into the ground. Impervious surface area is most widely accepted as an appropriate measure of a property's contribution of runoff, providing a clear relationship, or "rational nexus," to service received from a stormwater program.

In order to estimate the number of ESUs - the denominators in both reimbursement and improvement fee calculations – the following approach was taken:

- City staff studied a sample of SFR developments, and determined that the average impervious surface area for SFR customers is 2,650 square feet.
- City staff also provided a summary of the City's existing land use data by acreage and percentage impervious area by category. The study did not include parks, recreational areas, playgrounds, vacant parcels, right-of-ways, and water surfaces. With City staff's concurrence, we estimated the total number of equivalent service units (ESUs) by dividing the estimated impervious surface area for applicable land use categories by the assumed average SFR impervious surface area of 2,650 sf. (i.e. ESU definition).
- Hence, the stormwater utility's current customer base was estimated to be approximately 8,542 ESUs (about 2,417 single family residential ESUs and 6,125 non-single family residential ESUs).
- During the 20-year study period, the City's annual growth rate is projected to be 1.37% (per the 2005 Buildable Land Analysis Update).
- The initial total number of ESUs was grown proportionately with forecasted growth. As a result, it was estimated that the stormwater utility's customer base would grow from 8,542 ESUs to 11,214 ESUs, resulting in projected growth of 2,672 ESUs. It is important to note that forecasted growth in ESUs may not occur proportionately with City's projected growth. Absent specific projections, however, this was a necessary simplifying assumption.

B. Reimbursement Fee Cost Basis

In order to estimate the cost of unused capacity in the existing stormwater system – the numerator in the reimbursement fee calculation – the following approach was taken.

- Working closely with City staff, Murray, Smith and Associates (MSA), performed the cost estimates for the water, wastewater, and stormwater systems, and calculated the unused portion of the total capacity of each utility's existing fixed assets. The total cost of the stormwater utility fixed assets was $1,368,630 as of June 30, 2007. It was determined that there was no unused capacity in the assets that were included in the fixed assets listing.
- The utility's FY 2008/2009 and FY 2009/2010 budgeted year-end estimated capital expenditures were also treated as construction-work-in-progress (CWIP) and added to the utility's fixed assets. Total cost of these construction projects was $630,631. The portion financed from the utility's operating fund ($302,424) was assumed to be benefiting only existing customers and assigned as used capacity. The remaining $328,207 was financed from the utility's system development charge fund. It was assumed to be growth related and designated as unused capacity.
- Hence, the total cost of the stormwater utility fixed assets was $1,999,261 at the end of FY 2009/2010. The total value of unused capacity was $328,207, or 16.4% of the total fixed assets.
- The utility's outstanding debt principal balance was $195,236. Prorating with the unused capacity's share in the utility's total asset base (i.e. 16.4%), it is estimated that $32,051 of this amount is related to the unused capacity. Since the utility did not fully pay for the unused capacity available yet, and growth would pay for the related portion of the outstanding debt through rates, this amount was deducted from the total value of the unused capacity.
- Hence, the total reimbursement fee cost basis is calculated to be $296,156 (i.e. the total value of unused capacity net of a proportionate share of outstanding debt principal balance; $328,207 less $32,051).

C. Reimbursement Fee Calculation

The reimbursement fee was then calculated as follows. The net cost basis of $296,156 was divided by total forecasted growth in ESUs (2,672) to establish the reimbursement fee of $110.85 per ESU.

D. Improvement Fee Cost Basis

The improvement fee cost basis is calculated as follows:

- Working closely with City staff, Murray, Smith and Associates (MSA) provided the 20-year capital improvement project list and allocation of project costs between existing needs and growth (i.e. SDC eligible).
- Capital improvement projects budgeted for FY 2010/2011 were also added to the list provided. That portion of costs that would be financed from the utility's operating fund

was allocated to existing customers only. The remaining portion that would be financed from the SDC fund was allocated to growth.

- The estimated total cost of capital improvement projects, including the ones budgeted for FY 2010/2011, is $15,418,682.
- The total of project costs identified as capacity increasing for future users, and hence SDC eligible, was $1,869,444.
- At the end of FY 2009/2010, the stormwater SDC fund balance was $408,575. This amount was credited against the SDC eligible project costs to both (1) recognize that the fund balance is available for spending on the project list and (2) prevent new users from paying for those projects twice.
- The resulting net total of $1,460,869 is the improvement fee cost basis.

E. Improvement Fee Calculation

The improvement fee was then calculated as follows. The net cost basis of $1,460,869 was divided by total forecasted growth in ESUs (2,672), to establish the improvement fee of $546.80 per ESU.

F. Recommended System Development Charge

The recommended stormwater SDC is the sum of the reimbursement fee and the improvement fee, adjusted by an administrative cost recovery factor of 1.61%, or $10.58. The administrative cost recovery factor was derived by dividing annual SDC program accounting and administrative costs, including the amortized cost of this study, by forecasted annual SDC revenues. The resulting recommended SDC is $668.23 per ESU.

SECTION VI
PARKS SDC

The City's existing parks SDC is $238.60 per single family dwelling unit (SFDU).

A. CAPACITY BASIS

Parks SDCs are generally developed on a per capita basis and applied based on the average number of persons per residential dwelling unit.

Per City staff, the City's population was estimated to be 9,472 in 2008, and projected to reach 17,500 in 2050. This represents an increase of 8,034 residents.

B. REIMBURSEMENT FEE COST BASIS

In order for a reimbursement fee to be calculated, "excess" capacity must be available to serve future growth. A review of the current and planned levels of service, and an analysis of the City's existing parks inventory included in the City's Parks Plan ("Water to Woods: 2003 Cottage Grove Parks Plan" adopted by Resolution No. 1500 in February 2004) show that the City currently has no excess capacity, and therefore, no basis for a reimbursement fee exists.

C. IMPROVEMENT FEE COST BASIS

The improvement fee cost basis is calculated as follows:

- The City's Parks Plan identified capital improvement project lists for various park categories for two options; through 2030 and through 2050. To be consistent with population projections, we used the capital improvement project list for the 2050 option in developing the parks SDC. The projects identified were both to serve growth and to remedy deficiencies for current residents. The "current need" is the proportionate share needed to provide facilities to current residents at the levels of service planned for the 50-year planning horizon. The "growth need" is the proportionate share needed to provide facilities for future residents at the same period.
- The total cost of the capital improvement projects was $12,158,500.
- Based on the allocation of project costs between the current need and growth need, as explained above, the cost of current need is estimated to be $1,255,614, and the remaining $10,902,886 is identified as the cost of growth need.

D. COMPLIANCE COSTS

Oregon law provides that SDC revenues may be used for "…the cost of complying with the provisions of ORS 223.297 to 223.314, including the cost of developing system development charge methodologies and providing an annual accounting of system development charge expenditures" [ORS 223.307(5)]. In order to avoid having to spend funds for compliance that would otherwise be available for growth-required project needs, estimates of compliance costs must be included in the SDC calculations. Total compliance costs are calculated as follows:

- Average compliance costs are estimated to be $18,571.41 per year.
- Since the proposed parks SDC is calculated for a period of 41 years (i.e. 2010 through 2050), the average annual compliance cost is multiplied with the number of years in the study period (i.e. 41 years times $18,571.41).
- The result, $761,428, is the total compliance costs for the entire planning period that needs to be added to the total cost basis.

E. TOTAL COST BASIS

The total cost basis is the sum of improvement fee cost basis and the total compliance costs. Hence, the total cost basis was calculated to be $11,664,314.

F. RECOMMENDED SYSTEM DEVELOPMENT CHARGE

The parks SDC was then calculated as follows. The total cost basis of $11,664,314 was divided by total population increase, 8,034 persons, to establish the proposed parks SDC of $1,452 per person.

It should be noted that debt instruments may be used to fund facilities needed to repair deficiencies, and a portion of these debts will be repaid from property taxes paid by growth. Therefore, a tax credit has been calculated to account for potential payments in order to avoid charging growth twice; once through the SDC, and a second time through property taxes. A credit has been calculated for each type of dwelling unit using the following assumptions:

- $500,000 in 20-year general obligation bonds issued in 2013 and in 2019,
- 6.0% average annual increase in total City property valuation for taxes,
- 3.0% annual increase in assessed property valuations,
- 3.0% annual inflation (decrease in value of money),
- average 2009 property valuations for new construction at $250,000 for single family and $75,000 for multi-family dwelling units.

The parks SDCs per dwelling unit are calculated by multiplying the average number of persons per dwelling unit by the per capita SDC, and netting the estimated tax credit for each type of dwelling. **Exhibit 3** below summarizes the parks SDCs per dwelling unit by customer type.

Exhibit 3 – Parks SDCs per Dwelling Unit

SDC Rates	Persons/Unit	Gross SDC Rate	Tax Credit	Net SDC Rate
Single Family Dwelling Unit	2.71	$ 3,935	$ (275)	**$ 3,659**
Multi-Family Dwelling Unit	1.87	$ 2,715	$ (71)	**$ 2,644**
Manufactured Housing Unit	1.34	$ 1,946	$ (57)	**$ 1,889**

SECTION VII
TRANSPORTATION SDC

The City's existing transportation SDCs are based on the projected number of peak hour trips generated by land use. Specifically, new development is charged a transportation SDC equal to the added number of peak hour trips multiplied by the transportation SDC unit cost. The existing transportation SDC unit cost is $775.54 per peak hour trip.

A. CAPACITY BASIS

DKS Associates prepared the City's Transportation System Plan (TSP) in 2008, providing the cost estimates for the transportation capital plan and estimating growth in the number of PM peak hour trips. The TSP identified additional 7,481 PM peak hour trips resulting from household and employment increases in the City by 2025.

B. REIMBURSEMENT FEE COST BASIS

It is important to first recall that the transportation infrastructure has been funded largely by general tax sources, leaving only unused capacity in SDC-funded infrastructure eligible for reimbursement. In order to estimate the cost of unused capacity in the existing transportation system – the numerator in the reimbursement fee calculation – the following approach was taken.

- City staff provided a history of past SDC expenditures (improvement fee only) from FY 1999/2000 through FY 2007/2008, totaling $741,264.
- FCS GROUP estimated remaining unused capacity from these expenditures by reducing the total for each year proportionally by the growth that has occurred since that year. The resulting total of unused capacity in the existing system was $689,014.
- The total unused capacity in the existing system, $689,014, became the reimbursement fee cost basis.

C. REIMBURSEMENT FEE CALCULATION

The reimbursement fee was then calculated as the reimbursement fee cost basis, $689,014, divided by forecasted growth in peak-hour trips, 7,481. The resulting reimbursement fee is $92.10 per peak hour trip.

D. IMPROVEMENT FEE COST BASIS

The improvement fee cost basis and the resulting fee was calculated as follows:

- The estimated total cost of capital improvement projects is $12,915,000.
- Total cost of projects correcting the existing deficiencies is estimated to be $1,819,650.
- After deducting the project costs correcting existing deficiencies, the improvement fee cost basis is calculated. The net improvement fee eligible future cost is $11,095,350.

E. Improvement Fee Calculation

The improvement fee was then calculated as follows. The improvement fee cost basis of $11,095,350 was divided by total forecasted growth in PM peak hour trips, 7,481, to establish the base improvement fee of $1,483 per peak hour trip.

F. Recommended System Development Charge

The recommended transportation SDC of $1,601 per peak-hour trip is the sum of the reimbursement fee and improvement fee, adjusted by an administrative cost recovery factor of 1.61%, or $25. The administrative cost recovery factor was derived by dividing annual SDC program accounting and administrative costs, including the amortized cost of this study, by forecasted annual SDC revenues. The resulting recommended SDCs for a partial list of land uses are provided below in **Exhibit 4**. A more comprehensive list can be found in **Appendix A**. This comprehensive list should be used to apply the recommended charge, as the list includes deductions for pass-by and diverted-linked trips.

Exhibit 4 - Sample of the Proposed Transportation SDCs

Customer Type	Estimated Daily Trips [1]	SDC	Basis
1 SFR	1.01 per DU	$ 1,617	per DU
2 Apartments	0.62 per DU	$ 992	per DU
3 General Office Bldg.	1.49 per 1,000 sq. ft.	$ 2,385	per 1,000 sq. ft.
4 Specialty Retail	2.71 per 1,000 sq. ft.	$ 4,338	per 1,000 sq. ft.
5 Supermarket	6.69 per 1,000 sq. ft.	$ 10,708	per 1,000 sq. ft.
6 Light Industry	0.98 per 1,000 sq. ft.	$ 1,569	per 1,000 sq. ft.

[1] Source: Institute of Transportation Engineers, Trip Generation, Seventh Edition.

APPENDICES

APPENDIX I - A

WATER SDC
SPREADSHEET MODEL OUTPUT

City of Cottage Grove
Water Utility
Customer Base

Meter Size	Flow Factor	Est. Avg. Fixture Units [1]	Number of Customers			No of Meter Equivalents	No of Fixture Units
			Inside City	Outside City	Total		
5/8"X3/4"	1	30	3,240	155	3,395	3,395	101,850
1"	2.5	39	115	6	121	303	4,719
1 1/2"	5	151	51	1	52	260	7,852
2"	8	370	52	3	55	440	20,350
3"	16	500	4	1	5	80	2,500
4"	25	750	5	1	6	150	4,500
6"	50	1,000	-	1	1	50	1,000
8"	80	1,250	-	-	-	-	-
TOTAL			**3,467**	**168**	**3,635**	**4,678**	**142,771**
Projected Customers Base at the End of Study Period [2]					**4,772**	**6,140**	**187,426**
Projected Growth During the Study Period					**1,137**	**1,463**	**44,655**

NOTES:

[1] Source: Uniform Plumbing Code; Table 6-5 Fixture Unit Table for Determining Water Pipe and Meter Sizes.

[2] Projected Annual Growth Rate (between 2000 & 2025): 1.37% Per 2005 Buildable Lands Analysis Update.
Study period is assumed to be 20 years (i.e. 2008 - 2027).

City of Cottage Grove
Water Utility
Plant-in-Service

Assets as of FY Ending 6/30/	2007	*with FY2009 and FY2010 Updates*

Fx	Description	Purchase Date	Original Cost	Unused Capacity (%) [1]	Original Cost of Unused Capacity	Original Cost of Used Capacity
	ASSET A/C#: 20 - UTILITY PLANTS & SYSTEMS					
1	1956-57 PIPE LINES	06/30/57	$ 10,500.00	0.0%	$ -	$ 10,500.00
2	1957-58 PIPE LINES	06/30/58	$ 13,500.00	0.0%	$ -	$ 13,500.00
3	1958-59 PIPE LINES	06/30/59	$ 4,387.50	0.0%	$ -	$ 4,387.50
4	1959-60 PIPE LINES	06/30/60	$ 51,109.49	0.0%	$ -	$ 51,109.49
5	1960-61 PIPE LINES	06/30/61	$ 30,156.50	0.0%	$ -	$ 30,156.50
6	1961-62 PIPE LINES	06/30/62	$ 16,688.00	0.0%	$ -	$ 16,688.00
7	1962-63 PIPE LINES	06/30/63	$ 15,000.00	0.0%	$ -	$ 15,000.00
8	1963-64 PIPE LINES	06/30/64	$ 8,844.54	0.0%	$ -	$ 8,844.54
9	1964-65 PIPE LINES	06/30/65	$ 17,587.73	0.0%	$ -	$ 17,587.73
10	1965-66 PIPE LINES/MAINS	06/30/66	$ 37,450.00	0.0%	$ -	$ 37,450.00
11	1966-67 PIPE,MAINS,HYDR/E	06/30/67	$ 37,137.33	0.0%	$ -	$ 37,137.33
12	1967-68 HYDRANTS/WATER LI	06/30/68	$ 3,920.00	0.0%	$ -	$ 3,920.00
13	1971 PIPE LINES,MAINS HYD	06/30/71	$ 6,000.00	0.0%	$ -	$ 6,000.00
14	70-71 WATER SYS. IMPROVEM	06/30/71	$ 35,783.35	0.0%	$ -	$ 35,783.35
15	1971-72 PIPE.MAINS,HYDR &	06/30/72	$ 12,547.25	0.0%	$ -	$ 12,547.25
16	WATER WELL & OLSEN PROPER	06/30/73	$ 58,568.03	0.0%	$ -	$ 58,568.03
17	1973-74 PIPE LINES,MAINS,	06/30/74	$ 14,159.32	0.0%	$ -	$ 14,159.32
18	1973-74 RESER/DISTRIB. LI	06/30/74	$ 23,969.89	0.0%	$ -	$ 23,969.89
19	1974-75 PIPELINES,MAINS,H	06/30/75	$ 15,216.02	0.0%	$ -	$ 15,216.02
20	1974-75 RESERVOIR & DISTR	06/30/75	$ 24,775.13	0.0%	$ -	$ 24,775.13
21	1975-76 PIPE LINES,MAINS,	06/30/76	$ 7,170.14	0.0%	$ -	$ 7,170.14
22	1977 PIPELINES,MAINS,HYD/	06/30/77	$ 135,554.00	0.0%	$ -	$ 135,554.00
23	1977 RESRVR.&DISTRIBUTION	06/30/77	$ 205,155.00	0.0%	$ -	$ 205,155.00
24	1978 FILTRATION PLANT	06/30/78	$ 199,112.00	0.0%	$ -	$ 199,112.00
25	1978 PIPELINES,MAINS,HYD/	06/30/78	$ 34,031.00	0.0%	$ -	$ 34,031.00
26	1978 RSRVR & DISTRIBUTION	06/30/78	$ 196,993.00	0.0%	$ -	$ 196,993.00
27	1979 WATER FILTRATION PLA	06/30/79	$ 22,860.00	0.0%	$ -	$ 22,860.00
28	1979 WATER PIPELINE,MAINS	06/30/79	$ 4,505.00	0.0%	$ -	$ 4,505.00
29	1979 WATER DISTRIB. LINES	06/30/79	$ 154,281.00	0.0%	$ -	$ 154,281.00
30	79-80 WATER FILTRATION PL	06/30/80	$ 42,967.00	0.0%	$ -	$ 42,967.00
31	'80 WATER PIPELINES,MAINS	06/30/80	$ 12,929.00	0.0%	$ -	$ 12,929.00
32	'80 WATER RESERVOIR & MAI	06/30/80	$ 85,197.00	0.0%	$ -	$ 85,197.00
33	'81 WATER PIPELINES,MAINS	06/30/81	$ 25,178.00	0.0%	$ -	$ 25,178.00
34	'81 WATER DISTRIBUTION LI	06/30/81	$ 18,118.00	0.0%	$ -	$ 18,118.00
35	'81 WATER RESERVOIRS & MA	06/30/81	$ 9,590.00	0.0%	$ -	$ 9,590.00
36	1981 WATER CENTRAL FACILI	06/30/81	$ 128,467.00	0.0%	$ -	$ 128,467.00
37	'82 WATER RESERVOIR & MAI	06/30/82	$ 122,396.00	0.0%	$ -	$ 122,396.00
38	H LOMBARD PROPERTY NEAR W	06/30/83	$ 2,961.08	0.0%	$ -	$ 2,961.08
39	83 WATER FILTRATION PLANT	06/30/83	$ 10,000.00	0.0%	$ -	$ 10,000.00

City of Cottage Grove
Water Utility
Plant-in-Service

Assets as of FY Ending 6/30/	2007	*with FY2009 and FY2010 Updates*

Fx	Description	Purchase Date	Original Cost	Unused Capacity (%) [1]	Original Cost of Unused Capacity	Original Cost of Used Capacity
40	83 WATER PIPE,MAINS,HYDRA	06/30/83	$ 11,677.00	0.0%	$ -	$ 11,677.00
41	1983 WATER RESERVOIR & MA	06/30/83	$ 2,591.00	0.0%	$ -	$ 2,591.00
42	1983 WATER CENTRAL FACILI	06/30/83	$ 5,153.00	0.0%	$ -	$ 5,153.00
43	H LOMBARD PROPERTY NEAR W	06/30/83	$ 10,406.97	0.0%	$ -	$ 10,406.97
44	1984 PIPES, MAINS, HYDRAN	06/30/84	$ 31,434.00	0.0%	$ -	$ 31,434.00
45	RESERVOIR & MAINS 1984	06/30/84	$ 7,231.00	0.0%	$ -	$ 7,231.00
46	WATER CENTRAL FACILITIES	06/30/84	$ 9,117.00	0.0%	$ -	$ 9,117.00
47	CENTRAL FACILITIES	06/30/85	$ 71,373.00	0.0%	$ -	$ 71,373.00
48	LAYNG CRK WATER TREATMENT	06/30/86	$ 418,247.00	0.0%	$ -	$ 418,247.00
49	LAYNG CREEK FILTER PLANT	06/30/87	$ 49,064.00	0.0%	$ -	$ 49,064.00
50	HYDRANTS, PIPELINES, MAIN	06/30/88	$ 11,058.00	0.0%	$ -	$ 11,058.00
51	6 HYDRANTS	06/30/88	$ 3,029.00	0.0%	$ -	$ 3,029.00
52	IMPROVEMENTS LAYNG CREEK	06/30/88	$ 45,949.00	0.0%	$ -	$ 45,949.00
53	LID 181 CLARK AVE EXTENSI	10/16/90	$ 19,563.06	0.0%	$ -	$ 19,563.06
54	WATER SYSTEMS IMPROVEMENT	06/12/92	$ 260,109.93	0.0%	$ -	$ 260,109.93
55	JEFFERSON/MONROE IMPROVEM	10/30/92	$ 4,330.99	0.0%	$ -	$ 4,330.99
56	BOHEMIA WEST SUBDIVISION	06/07/93	$ 63,285.02	0.0%	$ -	$ 63,285.02
57	92-93 WATER SYSTEM IMPROV	06/30/93	$ 2,317,230.10	0.0%	$ -	$ 2,317,230.10
58	SDC PATEL WATER DISTRIB	09/01/93	$ 21,602.08	0.0%	$ -	$ 21,602.08
59	LID192 CLARK AVENUE EXTEN	06/30/94	$ 19,469.81	0.0%	$ -	$ 19,469.81
60	16TH & GATEWAY,RESERVOIR	06/30/94	$ 6,050.11	0.0%	$ -	$ 6,050.11
61	WATER SYSTEM IMPROVEMENT	06/30/94	$ 308,493.48	0.0%	$ -	$ 308,493.48
62	WATERLINE CONNECTOR ROAD	09/15/95	$ 167,263.27	0.0%	$ -	$ 167,263.27
63	ROW RIVER WATER & SEWER	09/18/95	$ 62,511.98	0.0%	$ -	$ 62,511.98
64	SOUTH 6TH STREET IMPROVEM	06/30/97	$ 50,542.89	0.0%	$ -	$ 50,542.89
65	WTP DIESEL EMERGENCY GENE	03/09/98	$ 18,635.51	0.0%	$ -	$ 18,635.51
66	HARRISON & HUDSON WATERLI	06/30/99	$ 33,600.00	0.0%	$ -	$ 33,600.00
67	MAPLE HILL SUBDIVISION	01/17/01	$ 8,179.20	0.0%	$ -	$ 8,179.20
68	MAPLE HILL SUBDIVISION	01/17/01	$ 4,441.52	0.0%	$ -	$ 4,441.52
69	S 10TH-LINCOLN-JOHNSON IM	01/31/01	$ 10,375.00	0.0%	$ -	$ 10,375.00
70	6' CHAIN LINK FENCE KNOX	06/29/01	$ 3,731.00	0.0%	$ -	$ 3,731.00
71	LAYNG CREEK BLDG ADDITION	06/30/01	$ 12,819.14	0.0%	$ -	$ 12,819.14
72	2" WATER MAIN ON "I" STREET	06/30/05	$ 9,415.90	0.0%	$ -	$ 9,415.90
73	KNOXHILL RESERVOIR COVER	06/30/05	$ 487,991.31	0.0%	$ -	$ 487,991.31
74	KIMWOOD WEYERHAEUSER WATERLINE	04/28/06	$ 467,682.36	0.0%	$ -	$ 467,682.36
75	WATERLINE UPGRADE 2" CURRIN BLVD	06/29/07	$ 40,973.00	0.0%	$ -	$ 40,973.00

City of Cottage Grove
Water Utility
Plant-in-Service

Assets as of FY Ending 6/30/	2007	*with FY2009 and FY2010 Updates*

Fx	Description	Purchase Date	Original Cost	Unused Capacity (%) [1]	Original Cost of Unused Capacity	Original Cost of Used Capacity
76	**FY 2009-10 Budgeted Capital Expenditures**					
77	Materials & Services	7/1/2009	$ 59,000.00	6.8%	$ 4,000.00	$ 55,000.00
78	71000 Contractual Services	7/1/2009	$ 75,140.00	2.1%	$ 1,580.00	$ 73,560.00
79	79900 Administrative Fee	7/1/2009	$ 11,928.00	2.2%	$ 266.00	$ 11,662.00
80	79910 Engineering Service Fees	7/1/2009	$ -	0.0%		
81	Capital Outlay	7/1/2009	$ 212,629.00	4.4%	$ 9,300.00	$ 203,329.00
82	83000 Buildings & Improvements	7/1/2009	$ -	0.0%	$ -	$ -
83	83040 Infrastructure Replacement	7/1/2009	$ 9,913.00	0.0%	$ -	$ 9,913.00
84	84000 Motor Vehicles	7/1/2009	$ 3,881.00	0.0%	$ -	$ 3,881.00
85	84010 Work Equipment	7/1/2009	$ -	0.0%	$ -	$ -
86	84030 Computer Equipment	7/1/2009	$ -	0.0%		
87			$ -	0.0%		
88	**FY 2008-09 Budgeted Capital Expenditures**		$ -	0.0%		
89	Materials & Services	7/1/2008	$ 60,845.00	25.5%	$ 15,506.00	$ 45,339.00
90	71000 Contractual Services	7/1/2008	$ 76,525.00	8.8%	$ 6,705.00	$ 69,820.00
91	79900 Administrative Fee	7/1/2008	$ 23,943.00	6.0%	$ 1,443.00	$ 22,500.00
92	79910 Engineering Service Fees	7/1/2008	$ -	0.0%		
93	Capital Outlay	7/1/2008	$ 1,587,798.00	3.6%	$ 57,142.00	$ 1,530,656.00
94	83000 Buildings & Improvements	7/1/2008	$ 33,537.00	0.0%	$ -	$ 33,537.00
95	83040 Infrastructure Replacement	7/1/2008	$ 5,708.00	0.0%	$ -	$ 5,708.00
96	84000 Motor Vehicles	7/1/2008	$ 22,565.00	0.0%	$ -	$ 22,565.00
97	84010 Work Equipment	7/1/2008	$ 22,565.00	0.0%	$ -	$ -
98	84030 Computer Equipment	7/1/2008	$ -	0.0%		
99					$ -	$ -
	Row River Water Treatment Plant [2]	**6/30/2009**	**$ 9,597,276**	**50.0%**	$ 4,798,638.00	$ 4,798,638.00
	Row River Water TP Upgrade [2]	**6/30/2009**	**$ 905,000**	**50.0%**	$ 452,500.00	$ 452,500.00
	Total Plant-in-Service		**$ 19,637,643.93**		**$ 5,347,080.00**	**$ 14,267,998.93**

[1] Per Murray, Smith & Associated, Inc. (Email dated August 25, 2008)

[2] Total plant capacity reached to 6 MGD, existing summer peak usage is 3 MGD.

City of Cottage Grove
Water Utility
Capital Improvement Program

Escalate Project Costs to Base Year:	2010

No	Description	Total	Existing	SDC Eligible	Year
1	CIP: FY 2020/2011 - FY 2029/2030				
2	EX-5: 12 inch on "M" Street from Main to Bryant	$ 54,808	$ 31,835	$ 22,972	2011
3	EX-6: 12 inch on "N" Street from Bryant to Clark	2,919	1,696	1,224	2011
4	EX-10: 12 inch on Cottage Grove Connector from Highway 99 to Row River Road	154,718	89,868	64,849	2019
5	EX-11: 12 inch on 16th Street from Cottage Grove Connector to Washington Avenue	143,041	83,086	59,955	2017
6	EX-11: 12 inch on 16th Street from Cottage Grove Connector to Washington Avenue	143,041	83,086	59,955	2018
7	EX-12: 12 inch on Washinton Avenue from 3rd to 5th St.	43,788	25,434	18,354	2018
8	EX-14: 12 inch on Taylor Avenue from 8th to 10th St.	38,679	22,467	16,212	2012
9	EX-15: 12 inch on Taylor Avenue from 4th to 6th St.	36,490	21,195	15,295	2012
10	EX-3: 12 inch on Bryant from "R" to "M" Streets	91,955	63,048	28,907	2011
11	EX-4: 12 inch on Main from "R" to "M" Streets	100,058	68,604	31,454	2020
12	EX-13: 12 inch on 10th Street Washington Ave to Main St.	5,834	4,475	1,360	2011
13	EX-13: 13 inch on 10th Street Washington Ave to Main St.	5,834	4,475	1,360	2012
14	EX-16: 12 inch on 6th Street from Taylor to Grant Ave.	82,467	56,543	25,924	2019
15	EX-17: 8 inch on 10th Street from Hwy. 99 to Villard Ave.	83,270	68,000	15,270	2012
16	EX-18: 8 inch on Main Street from 12th to Gateway Blvd.	90,933	74,258	16,675	2021
17	EX-19: 8 inch on 3rd Street from Harrison to Jefferson Ave.	86,335	59,195	27,140	2024
18	EX-20: 8 inch on 12th Street from Jefferson to Adams Ave.	9,433	6,467	2,965	2024
19	8" Valves	17,059	9,909	7,150	2024
20	12" Valves	87,576	50,869	36,707	2024
21	EX: New 3.1 MG Reservoir (West Side)	706,994	126,575	580,419	2013
22	EX: New 3.1 MG Reservoir (West Side)	706,994	126,575	580,419	2014
23	EX: New 3.1 MG Reservoir (West Side)	706,994	126,575	580,419	2015
24	EX: New 3.1 MG Reservoir (West Side)	706,994	126,575	580,419	2016
25	EX: New Taylor Ave. Pump Station	261,000	151,603	109,397	2012
26	FUT-B: 12 inch on Blue Sky Drive from Harrison to Sweet Lane	155,447	90,292	65,155	2017
27	FUT-C: 12 inch on Sweet Lane from Highway 99 to Blue Sky Drive	209,458	121,667	87,791	2011
28	FUT-D: 12 inch on Cleveland Ave. from Highway 99to I-5	289,001	167,867	121,133	2028
29	FUT-E: 12 inch along Gateway Blvd. from Taylor to Cleveland	259,809	150,911	108,898	2028
30	FUT-F: 12 inch on South 6th from Grant to Cleveland	132,094	76,727	55,366	2019
31	FUT: McFarland Butte, 1.25 MG Reservoir	570,156	-	570,156	2029
32	FUT: McFarland Butte, 1.25 MG Reservoir	570,156	-	570,156	2030
33	FUT: Knox Hill, 1.05 MG Reservoir	319,287	-	319,287	2025
34	FUT: Knox Hill, 1.05 MG Reservoir	319,287	-	319,287	2026
35	FUT: Knox Hill, 1.05 MG Reservoir	319,287	-	319,287	2027
36	8 inch under Hwy. 99 near Jim's Tire	19,903	11,561	8,342	2024
37	12 inch on Highway 99 from S. River Road to Riverwalk Subdivision	61,667	35,820	25,847	2021
38	8 inch on South 10th Street & Johnson Avenue	5,395	3,134	2,261	2021
39	8 inch on North "O" Street from Ash to Birch	10,425	6,055	4,370	2024
40	8 inch on Ash Avenue from "O" to "Q"	35,802	20,796	15,006	2024
41	8 inch on Daugherty from end to S. River Road	13,758	7,991	5,767	2021
42	12 inch from intersection of N. River Rod/Main St. to insection of 5th St./Washington Ave	188,869	109,705	79,164	2018
43	8 inch to loop City Hall	26,050	15,131	10,919	2018
44	8 inch on Row River Road from Bryson-Sears Rd. to Schwartz Park	345,100	200,453	144,647	2022
45	8 inch on Row River Road from Bryson-Sears Rd. to Schwartz Park	345,100	200,453	144,647	2023
46	12 inch on South 4th Street from Harrison to Hayes	294,756	171,210	123,546	2020
47	12 inch on South River Road from Nellis Harrison Avenue	222,488	129,233	93,255	2021
48	Backup generator at Holly Pump Station	34,628	20,114	14,514	2017
49	Backup generator at Landess Pump Station	36,435	21,163	15,272	2017

City of Cottage Grove
Water Utility
Capital Improvement Program

Escalate Project Costs to Base Year:	2010

No	Description	Total	Existing	SDC Eligible	Year
50		-			
51	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2011
52	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2012
53	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2013
54	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2014
55	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2015
56	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2016
57	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2017
58	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2018
59	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2019
60	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2020
61	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2021
62	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2022
63	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2023
64	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2024
65	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2025
66	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2026
67	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2027
68	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2028
69	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2029
70	Yearly Program to upsize all water lines less than 8" in diameter to 8" pipe that are not lis	450,000	367,481	82,519	2030
71		-			
72	**FY 2010-11 Budgeted Capital Expenditures**	-			
73	Materials & Services	-			
74	71000 Contractual Services	81,000	81,000	-	2011
75	79900 Administrative Fee	75,237	68,773	6,464	2011
76	79910 Engineering Service Fees	19,820	17,100	2,720	2011
77	Capital Outlay	-			
78	83000 Buildings & Improvements	146,267	128,400	17,867	2011
79	83040 Infrastructure Replacement	-	-	-	2011
80	84000 Motor Vehicles	7,000	7,000	-	2011
81	84010 Work Equipment	5,850	5,850	-	2011
82	84030 Computer Equipment	-	-	-	2011
83		-			
95		-			
	Total Capital Projects	**$ 18,486,746**	**$ 10,700,436**	**$ 7,786,309**	

City of Cottage Grove
Water Utility
SDC Calculation

Reimbursement Fee		Cost Basis	Unit Basis: Meter Equivalents	Unit Basis: Fixture Units
Original Cost of Plant-in-Service		$ 19,637,644		
Unused Capacity		27.2%		
Cost of Unused Capacity		$ 5,347,080		
less: Outstanding Debt Principal	(11,241,850)	(3,061,012)		
Net Reimbursement Fee Cost Basis		**$ 2,286,068**		
Growth to End of Planning Period			1,463	44,655
Reimbursement Fee			**$ 1,563**	**$ 51**
Improvement Fee				
Total Capital Improvement Projects		$ 18,486,746		
less: Cost of Existing Deficiencies		(10,700,436)		
Capacity Expanding CIP		$ 7,786,309		
less: Existing SDC Fund Balance		(80,118)		
Net Cost Basis for Improvement Fee		**$ 7,706,191**		
Growth to End of Planning Period (20 years; 2008-2027)			1,463	44,655
Improvement Fee			**$ 5,267**	**$ 173**
Total System Development Charge				
Reimbursement Fee			$ 1,563	$ 51
Improvement Fee (Base)			$ 5,267	$ 173
SDC Subtotal			$ 6,830	$ 224
plus: Administrative Cost Recovery		1.61%	$ 110	$ 4
Total Base SDC			**$6,940** per Meter Equivalent	**$228** per Fixture Unit

Example SDCs

Meter Size	Flow Factors	SDC
3/4" x 5/8"	1	$ 6,940
1"	2.5	17,350
1-1/2"	5	34,700
2"	8	55,520
3"	16	111,040
4"	25	173,500
6"	50	347,000
8"	80	555,200
10"	125	867,500

CURRENT SDC
$ 30.39 per fixture unit

City of Cottage Grove
SDC Study
Administrative Cost Recovery

Net Annual Administrative Cost related to SDCs (1)	$	10,000
Amortization of SDC Analysis Cost over 5 years (2):	$	10,132
Net Annual SDC Administrative Cost:	**$**	**20,132**

Estimated Annual Proposed SDC Revenues before Admin. Cost:

Water SDC	$	499,610
Wastewater SDC		74,677
Stormwater SDC		87,851
Street SDC		589,218
Parks SDC		-
Estimated Annual Revenue	$	1,251,356

Admin. Cost/Total Annual SDC Revenues **1.61%** on all SDCs

NOTES:

(1) Placeholder

(2) Cost of: **$43,865**
at: **5.0%**
over: **5** years

(3) Study Period **20** years

APPENDIX I - B

WASTEWATER SDC
SPREADSHEET MODEL OUTPUT

City of Cottage Grove
Wastewater Utility
Customer Base

Meter Size	Flow Factor	Est. Avg. Fixture Units [1,2]	Number of Customers			No of Meter Equivalents	No of Fixture Units
			Inside City	Outside City	Total		
5/8"X3/4"	1	23	3,199	21	3,220	3,220	72,450
1"	2.5	39	99	1	100	250	3,900
1 1/2"	5	151	50	-	50	250	7,550
2"	8	370	35	-	35	280	12,950
3"	16	500	6	-	6	96	3,000
4"	25	750	5	-	5	125	3,750
6"	50	1,000	-	-	-	-	-
8"	80	1,250	-	-	-	-	-
sewer only	1	30	45	9	54	54	1,620
TOTAL			**3,439**	**31**	**3,470**	**4,275**	**105,220**
Projected Customers Base at the End of Study Period [3]					**4,555**	**5,612**	**138,130**
Projected Growth During the Study Period					**1,085**	**1,337**	**32,910**
Growth's Share					**23.8%**	**23.8%**	**23.8%**

NOTES:

[1] Source: Uniform Plumbing Code; Table 6-5 Fixture Unit Table for Determining Water Pipe and Meter Sizes.

[2] Sewer SFR Unit Reduction Ratio = 75% Since number of SFR accounts by meter size is unknown at this stage, this ratio is applied to 5/8"X3/4" meters.

[3] Projected Annual Growth Rate (between 2000 & 2025): 1.37% Per 2005 Buildable Lands Analysis Update.
Study period is assumed to be 20 years (i.e. 2008 - 2027).

City of Cottage Grove
Wastewater Utility
Plant-in-Service

Assets as of FY Ending 6/30/	2007	*with FY2009 and FY2010 Updates*

Fx	Description	Purchase Date	Original Cost	Unused Capacity (%) [1]	Original Cost of Unused Capacity	Original Cost of Used Capacity
	ASSET A/C#: 20 - UTILITY PLANTS & SYSTEMS					
1	1963-64 SEWER SYS/TREAT P	06/30/64	$ 14,637.59	0.0%	$ -	$ 14,637.59
2	1966-67 SEWER SYS/TREAT P	06/30/67	$ 327,892.18	0.0%	$ -	$ 327,892.18
3	1969-70 SEW.SYS. & TREAT.	06/30/70	$ 3,196.24	0.0%	$ -	$ 3,196.24
4	1971-72 SERWER SYS & TREA	06/30/72	$ 89,268.42	0.0%	$ -	$ 89,268.42
5	1973-74 SEW/SYS & TREAT.P	06/30/74	$ 18,709.37	0.0%	$ -	$ 18,709.37
6	1974-75 SEW/SYS & TREAT/P	06/30/75	$ 64,774.96	0.0%	$ -	$ 64,774.96
7	1975-76 SEW/SYS & TREAT/P	06/30/76	$ 83,454.95	0.0%	$ -	$ 83,454.95
8	1977 SEW/SYS.& TREAT.PLAN	06/30/77	$ 110,067.00	0.0%	$ -	$ 110,067.00
9	1978 SEWER TREATMENT PLAN	06/30/78	$ 139,739.00	0.0%	$ -	$ 139,739.00
10	1980 SEWER COLLECTION SYS	06/30/80	$ 101,946.00	0.0%	$ -	$ 101,946.00
11	82 SEWAGE DISPOSAL PLANT	06/30/82	$ 3,144.00	0.0%	$ -	$ 3,144.00
12	1983 SEWAGE DISPOSAL PLAN	06/30/83	$ 313,465.00	0.0%	$ -	$ 313,465.00
13	1984 SEWAGE DISPOSAL PLAN	06/30/84	$ 2,024,455.00	0.0%	$ -	$ 2,024,455.00
14	1984-85 SEWAGE DISPOSAL P	06/30/85	$ 242,232.00	0.0%	$ -	$ 242,232.00
15	JEFFERSON/MONROE IMPROVEM	10/30/92	$ 28,984.33	0.0%	$ -	$ 28,984.33
16	SOUTH 6TH STREET IMPROVEM	06/30/97	$ 142,958.00	0.0%	$ -	$ 142,958.00
17	ANTHONY AVE SEWER LIFT ST	06/30/99	$ 93,705.52	0.0%	$ -	$ 93,705.52
18	MAPLE HILL SUBDIVISION	01/17/01	$ 7,641.65	0.0%	$ -	$ 7,641.65
19	S 10TH-LINCOLN-JOHNSON IM	01/31/01	$ 1,877.04	0.0%	$ -	$ 1,877.04
20	SOUTH 6TH SANITARY SEWER	06/30/01	$ 120,558.85	0.0%	$ -	$ 120,558.85
21	SWEET LANE SANITARY SEWER	08/30/02	$ 77,678.44	0.0%	$ -	$ 77,678.44
22	JOHNSON AVE SANITARY SEWER-LEE	08/23/03	$ 6,399.00	0.0%	$ -	$ 6,399.00
23	**WASTEWATER TREATMENT PLANT [2]**	**09/29/06**	**$ 11,065,515.81**	**23.8%**	**$ 2,636,386.17**	**$ 8,429,129.64**
24	SEWER RELOCATION "I" 5 & E WHITEAKE	06/29/07	$ 26,206.44	0.0%	$ -	$ 26,206.44
					$ -	$ -
	FY 2009-10 Budgeted Capital Expenditures			0.0%		$ -
	Materials & Services	7/1/2009	$ -	0.0%		$ -
	71000 Contractual Services	7/1/2009	$ 11,500.00	34.8%	$ 4,000.00	$ 7,500.00
	79900 Administrative Fee	7/1/2009	$ 13,265.00	38.8%	$ 5,150.00	$ 8,115.00
	79910 Engineering Service Fees	7/1/2009	$ 188.00	100.0%	$ 188.00	$ -
	Capital Outlay	7/1/2009	$ -	0.0%		$ -
	83000 Buildings & Improvements	7/1/2009	$ 13,379.00	40.2%	$ 5,379.00	$ 8,000.00
	84000 Motor Vehicles	7/1/2009	$ 119,077.00	0.0%	$ -	$ 119,077.00
	84010 Work Equipment	7/1/2009	$ 24,112.00	0.0%	$ -	$ 24,112.00
	84030 Computer Equipment	7/1/2009	$ -	0.0%	$ -	$ -

City of Cottage Grove
Wastewater Utility
Plant-in-Service

Assets as of FY Ending 6/30/	2007	*with FY2009 and FY2010 Updates*

Fx	Description	Purchase Date	Original Cost	Unused Capacity (%) [1]	Original Cost of Unused Capacity	Original Cost of Used Capacity
			$ -	0.0%		$ -
	FY 2008-09 Budgeted Capital Expenditures		$ -	0.0%		$ -
	Materials & Services	7/1/2008	$ -	0.0%		$ -
	71000 Contractual Services	7/1/2008	$ 32,666.00	50.5%	$ 16,506.00	$ 16,160.00
	79900 Administrative Fee	7/1/2008	$ 70,890.00	20.3%	$ 14,385.00	$ 56,505.00
	79910 Engineering Service Fees	7/1/2008	$ 4,907.00	100.0%	$ 4,907.00	$ -
	Capital Outlay	7/1/2008	$ -	0.0%		$ -
	83000 Buildings & Improvements	7/1/2008	$ 257,255.00	16.6%	$ 42,585.00	$ 214,670.00
	83040 Infrastructure Replacement	7/1/2008	$ -	0.0%	$ -	$ -
	84000 Motor Vehicles	7/1/2008	$ 5,708.00	0.0%	$ -	$ 5,708.00
	84010 Work Equipment	7/1/2008	$ 6,452.00	0.0%	$ -	$ 6,452.00
	84030 Computer Equipment	7/1/2008	$ -	0.0%	$ -	$ -
					$ -	$ -
	Total Plant-in-Service		**$ 15,667,906**		**$ 2,729,486**	**$ 12,938,420**

[1] Per Murray, Smith & Associated, Inc. (Email dated August 25, 2008)

[2] Per City staff, there is available capacity for 20-year growth.

City of Cottage Grove
Wastewater Utility
Capital Improvement Program

Escalate Project Costs to Base Year:	2010

No	Description	Total	Existing	SDC Eligible	Year
1	CIP: FY 2020/2011 - FY 2029/2030	$ -			
2	CI-A-2: Intersection at Grover/8th to Intersection at Chadwick/10th	171,529	$ 162,147	$ 9,382	2011
3	CI-A-2: Intersection at Grover/8th to Intersection at Chadwick/10th	171,529	162,147	9,382	2012
4	CI-A-4: Intersection at Chamberlain/11th to Intersection at N. Goshen Highway	66,605	62,962	3,643	2013
5	CI-C-1: 10th Street from Jefferson to Main Street Intersection at N. Goshen Highway 8	277,854	246,175	31,680	2016
6	CI-C-1: 10th Street from Jefferson to Main Street Intersection at N. Goshen Highway 8	277,854	246,175	31,680	2017
7	CI-C-1: 10th Street from Jefferson to Main Street Intersection at N. Goshen Highway 8	277,854	246,175	31,680	2018
8	CI-D-3: 6th Street from Taylor to Harrison Drive and South "S" Street	266,275	245,072	21,203	2019
9	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin A	34,531	34,531	-	2027
10	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin A	34,531	34,531	-	2028
11	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin B	210,729	199,415	11,315	2025
12	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin B	210,729	199,415	11,315	2026
13	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin B	210,729	199,415	11,315	2027
14	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin C	242,178	223,759	18,419	2020
15	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin C	242,178	223,759	18,419	2021
16	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin C	242,178	223,759	18,419	2022
17	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin D	250,861	250,861	-	2023
18	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin E	244,041	234,345	9,696	2028
19	Rehabilitation/Replacement of Structurally Deficient Pipes in Basin F	24,186	21,784	2,402	2024
20	Inflow/Infiltration Corrective Work	290,000	214,424	75,576	2015
21	Digester Modification	250,000	250,000	-	2014
22	South 3rd from Madison to Harrison	132,000	97,600	34,400	2024
23	Alley (Main/Ash) from "M" to "Q"	123,691	91,456	32,235	2029
24	Alley (Main/Washington) from South 10th to Coiner Park	111,251	82,258	28,993	2029
25	Alley (Washington & Adams) from 3rd to 5th	86,440	63,913	22,527	2024
26	Alley (East Main to Washington)	87,000	64,327	22,673	2011
27	Exit 174 irrigation for reuse effluent	40,800	30,167	10,633	2025
28	Lane Street and 10th Street	156,468	115,691	40,777	2013
29	Backup reuse effluent pump with vault	110,000	81,333	28,667	2030
30	Trailhead Park Sewer Relocation	36,500	26,988	9,512	2012
31	Drainage Projects at Golf Course	6,000	4,436	1,564	2011
32	N. River Road from Main to Holly	138,000	102,036	35,964	2030
33	N. River Road from Holly to Woodson	40,600	30,019	10,581	2026
34	704 Quincy	15,786	11,672	4,114	2012
35	635 South 1st	23,679	17,508	6,171	2012
36		-			

City of Cottage Grove
Wastewater Utility
Capital Improvement Program

Escalate Project Costs to Base Year:	2010

No	Description	Total	Existing	SDC Eligible	Year
37	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2011
38	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2012
39	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2013
40	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2014
41	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2015
42	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2016
43	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2017
44	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2018
45	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2019
46	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2020
47	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2021
48	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2022
49	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2023
50	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2024
51	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2025
52	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2026
53	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2027
54	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2028
55	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2029
56	Miscellaneous Projects including CCTV inspections	60,000	44,364	15,636	2030
57		-			
58	**FY 2010-11 Budgeted Capital Expenditures**	-			
59	Materials & Services	-			
60	71000 Contractual Services	18,500	18,500	-	2011
61	79900 Administrative Fee	-	-	-	2011
62	79910 Engineering Service Fees	-	-	-	2011
63	Capital Outlay	-			
64	83000 Buildings & Improvements	-	-	-	2011
65	84000 Motor Vehicles	-	-	-	2011
66	84010 Work Equipment	-	-	-	2011
67	84030 Computer Equipment	-	-	-	2011
68		-	-	-	2011
80		-			
	Total Capital Projects	**$ 6,323,087**	**$ 5,406,028**	**$ 917,059**	

City of Cottage Grove
Wastewater Utility
SDC Calculation

Reimbursement Fee		Cost Basis	Unit Basis: Meter Equivalents	Unit Basis: Fixture Units
Original Cost of Plant-in-Service		$ 15,667,906		
Unused Capacity		17.4%		
Cost of Unused Capacity		$ 2,729,486		
less: Outstanding Debt Principal	(10,386,741)	(1,809,461)		
Net Reimbursement Fee Cost Basis		**$ 920,025**		
Growth to End of Planning Period			1,337	32,910
Reimbursement Fee			**$ 688**	**$ 28**
Improvement Fee				
Total Capital Improvement Projects		$ 6,323,087		
less: Cost of Existing Deficiencies		(5,406,028)		
Capacity Expanding CIP		$ 917,059		
less: Existing SDC Fund Balance		(343,340)		
Net Cost Basis for Improvement Fee		**$ 573,719**		
Growth to End of Planning Period (20 years; 2008-2027)			1,337	32,910
Improvement Fee			**$ 429**	**$ 17**
Total System Development Charge				
Reimbursement Fee			$ 688	$ 28
Improvement Fee			$ 429	$ 17
SDC Subtotal			$ 1,117	$ 45
plus: Administrative Cost Recovery		1.61%	$ 18	$ 1
Total SDC			**$1,135** per Meter Equivalent	**$46** per Fixture Unit

Example SDCs

Meter Size	Flow Factors	SDC
3/4" x 5/8"	1	$ 1,135
1"	2.5	2,838
1-1/2"	5	5,675
2"	8	9,080
3"	16	18,160
4"	25	28,375
6"	50	56,750
8"	80	90,800
10"	125	141,875

CURRENT SDC

$ 45.61 per fixture unit

City of Cottage Grove
SDC Study
Administrative Cost Recovery

Net Annual Administrative Cost related to SDCs (1)	$	10,000
Amortization of SDC Analysis Cost over 5 years (2):	$	10,132
Net Annual SDC Administrative Cost:	**$**	**20,132**

Estimated Annual Proposed SDC Revenues before Admin. Cost:

Water SDC	$	499,610
Wastewater SDC		74,677
Stormwater SDC		87,851
Street SDC		589,218
Parks SDC		-
Estimated Annual Revenue	$	1,251,356

Admin. Cost/Total Annual SDC Revenues **1.61%** on all SDCs

NOTES:

(1) Placeholder

(2)

Cost of:	**$43,865**
at:	**5.0%**
over:	**5** years

(3) Study Period **20** years

APPENDIX I - C

STORMWATER SDC
SPREADSHEET MODEL OUTPUT

City of Cottage Grove
Stormwater Utility
Customer Base

Land Use Summary

Category	% Impervious Area[2]	Existing Area (acres)	**Existing Impervious (acres)**	Future Area (acres)	**Future Impervious (acres)**	**Type of Development**	
Agriculture & Forest	2%	20.38	0.41			3	Non-residential
Commercial & Business	75%	351.19	263.39	481.41	361.06	3	Non-residential
Golf & Sports	2%	64.86	1.30			3	Non-residential
Health Care & Residential Professional	35%	17.42	6.10	32.50	11.38	3	Non-residential
Industrial	75%	34.37	25.78	80.64	60.48	3	Non-residential
Institution	35%	161.22	56.43			3	Non-residential
Mixed	35%	1.12	0.39			3	Non-residential
Parks, Rec & Playground	2%	85.66	1.71	150.47	3.01	4	Other
Public	35%	21.62	7.57	0.10	0.04	3	Non-residential
Residential High (existing)	35%	4.82	1.69	4.82	1.69	2	Multi Family Residential
Residential High (new)	60%			4.48	2.69	2	Multi Family Residential
Residential Medium & General[3] (existing)	30%	31.99	9.60	31.99	9.60	2	Multi Family Residential
Residential Medium & General[3] (new)	47%			1200.11	564.05	2	Multi Family Residential
Residential Low (existing)	25%	588.04	147.01			1	Single Family Residential
Right-of-Way	75%	425.32	318.99			4	Other
Vacant	2%	169.31	3.39			4	Other
Water	0%	9.19	0.00			4	Other
TOTALS		1986.51	**843.74**	1986.52	**1013.98**		

		Existing Impervious (acres)	**Existing Impervious (sq. ft)**	**Number of Accounts**	**Number of ESUs**
1	Single Family Residential	147.01	6,403,756		2,417
2	Multi Family Residential	11.28	491,531		185
3	Non-residential	361.36	15,740,746		5,940
4	Other	324.09	14,117,334		N/A
	TOTAL	**843.74**	**36,753,367**	**-**	**8,542**

1 ESU = **2650** sq.ft.

Existing Number of ESUs	**8,542**
Projected Customers Base at the End of Study Period [1]	**11,214**
Projected Growth During the Study Period	**2,672**

NOTES:

[1] Projected Annual Growth Rate (between 2000 & 2025)= 1.37% Per 2005 Buildable Lands Analysis Update.
Study period is assumed to be 20 years (i.e. 2008 - 2027).

City of Cottage Grove
Stormwater Utility
Plant-in-Service

Assets as of FY Ending 6/30/	2007	*with FY2009 and FY2010 Updates*

Fx	Description	Purchase Date	Original Cost	Unused Capacity (%) [1]	Original Cost of Unused Capacity	Original Cost of Used Capacity
	ASSET A/C#: 20 - UTILITY PLANTS & SYSTEMS					
1	1959-60 SEWER SYSTEM	06/30/60	$ 23,364.75	0.0%	$ -	$ 23,364.75
2	1960-61 SEWER SYSTEM	06/30/61	$ 54,280.60	0.0%	$ -	$ 54,280.60
3	1962-63 SEWER SYSTEM	06/30/63	$ 6,000.00	0.0%	$ -	$ 6,000.00
4	LOCAL IMPROVEMENT DIST. A	06/30/66	$ 16,056.10	0.0%	$ -	$ 16,056.10
5	1967-68 E HARRISON/ANTHON	06/30/68	$ 18,914.65	0.0%	$ -	$ 18,914.65
6	1970-71 EAST MAIN URBAN R	06/30/71	$ 140,481.65	0.0%	$ -	$ 140,481.65
7	1979 SEWER COLLECTION SYS	06/30/79	$ 132,770.00	0.0%	$ -	$ 132,770.00
8	'81 SEWER COLLECTION SYST	06/30/81	$ 7,673.00	0.0%	$ -	$ 7,673.00
9	1983 SEWER COLLECTION SYS	06/30/83	$ 549,026.00	0.0%	$ -	$ 549,026.00
10	LID 181 CLARK AVE EXTENSI	10/16/90	$ 10,077.94	0.0%	$ -	$ 10,077.94
11	POST OFFICE AREA IMPROVEM	11/05/91	$ 7,584.66	0.0%	$ -	$ 7,584.66
12	BOHEMIA WEST SUBDIVISION	06/07/93	$ 180,118.91	0.0%	$ -	$ 180,118.91
13	LID188 VAN BUREN	06/30/94	$ 12,637.21	0.0%	$ -	$ 12,637.21
14	LID192 CLARK AVENUE EXTEN	06/30/94	$ 15,297.71	0.0%	$ -	$ 15,297.71
15	ROW RIVER WATER & SEWER	09/18/95	$ 101,993.22	0.0%	$ -	$ 101,993.22
16	THOMAS LANE PROJECT	02/02/96	$ 7,575.96	0.0%	$ -	$ 7,575.96
17	ROW RIVER RD STORM DRAINA	06/30/97	$ 76,459.30	0.0%	$ -	$ 76,459.30
18	MAPLE HILL SUBDIVISION	01/17/01	$ 8,317.93	0.0%	$ -	$ 8,317.93
					$ -	$ -
	FY 2009-10 Budgeted Capital Expenditures		$ -	0.0%		$ -
	Materials & Services	7/1/2009	$ -	0.0%		$ -
	71000 Contractual Services	7/1/2009	$ 5,500.00	72.7%	$ 4,000.00	$ 1,500.00
	79900 Administrative Fee	7/1/2009	$ 9,415.00	32.9%	$ 3,100.00	$ 6,315.00
	79910 Engineering Service Fees	7/1/2009	$ 80.00	100.0%	$ 80.00	$ -
	Capital Outlay	7/1/2009	$ -	0.0%		$ -
	83000 Buildings & Improvements (Xfer to Bicycle &	7/1/2009	$ 193,000.00	100.0%	$ 193,000.00	$ -
	83040 Infrastructure Replacement	7/1/2009	$ -	0.0%	$ -	$ -
	84000 Motor Vehicles	7/1/2009	$ 124,049.00	0.0%	$ -	$ 124,049.00
	84010 Work Equipment	7/1/2009	$ 7,802.00	0.0%	$ -	$ 7,802.00
	84030 Computer Equipment		$ -	0.0%		$ -

City of Cottage Grove
Stormwater Utility
Plant-in-Service

Assets as of FY Ending 6/30/	2007	*with FY2009 and FY2010 Updates*

Fx	Description	Purchase Date	Original Cost	Unused Capacity (%) [1]	Original Cost of Unused Capacity	Original Cost of Used Capacity
			$ -	0.0%		$ -
	FY 2008-09 Budgeted Capital Expenditures		$ -	0.0%		$ -
	Materials & Services	7/1/2008	$ -	0.0%		$ -
	71000 Contractual Services	7/1/2008	$ 16,814.00	98.2%	$ 16,506.00	$ 308.00
	79900 Administrative Fee	7/1/2008	$ 18,175.00	55.7%	$ 10,130.00	$ 8,045.00
	79910 Engineering Service Fees	7/1/2008	$ 27,280.00	28.9%	$ 7,871.00	$ 19,409.00
	Capital Outlay	7/1/2008	$ -	0.0%		$ -
	83000 Buildings & Improvements	7/1/2008	$ 219,312.00	42.6%	$ 93,520.00	$ 125,792.00
	83040 Infrastructure Replacement	7/1/2008	$ -	0.0%	$ -	$ -
	84000 Motor Vehicles	7/1/2008	$ 5,708.00	0.0%	$ -	$ 5,708.00
	84010 Work Equipment	7/1/2008	$ 3,496.00	0.0%	$ -	$ 3,496.00
	84030 Computer Equipment	7/1/2008	$ -	0.0%		$ -
					$ -	$ -
	Total Plant-in-Service		**$1,999,260.59**		**$ 328,207.00**	**$1,671,053.59**

[1] Per Murray, Smith & Associated, Inc. (Email dated August 25, 2008)

City of Cottage Grove
Stormwater Utility
Capital Improvement Program

Escalate Project Costs to Base Year:	2010

No	Description	Total	Existing	SDC Eligible
1	Along 10th Street & Washington Avenue Between Quincy Avenue & Main Stree	$ 766,300	$ 726,989	$ 39,311
2	Along 10th Street & Washington Avenue Between Quincy Avenue & Main Stree	766,300	726,989	39,311
3	Along South 8th Street between Harrison Avenue & Qunicy Avenue	425,200	381,702	43,498
4	Along Fillmore Avenue between South 8th Street and Highway 99	673,330	610,508	62,822
5	Along Fillmore Avenue between South 8th Street and Highway 99	288,570	261,646	26,924
6	Along Harrison Avenue between Blue Sky Drive and South "S" Street	347,900	322,329	25,571
7	Along Quincy Avenue between South 8th Street and South 10th Street	445,100	422,266	22,834
8	Along North 16th Street between Main Street & Harvey Road	456,700	399,201	57,499
9	Along North 16th Street between Main Street & Harvey Road	456,700	399,201	57,499
10	Along South 6th Street between Taylor Avenue and Qunicy Avenue	602,400	546,196	56,204
11	Along South property line of Bohemia School between South "S" Street and abo	193,300	179,092	14,208
12	Along Main Street between 15th Street and 16th Street	102,500	92,937	9,563
13	Along Madison Avenue from South 3rd Street to Coast Fork of Willamette River	444,500	388,537	55,963
14	Along Chestnut between North "J" Street and North "G" Street	347,900	304,099	43,801
15	Along Birch between North "G" Street and Coast Fork of Willamette River	213,800	193,852	19,948
16	East of I-5 from Main/12th Streets to Villard Avenue	787,000	713,573	73,427
17	Along Harvey Road between North 16th and Highway 99	589,500	534,500	55,000
18	Along Chestnut between North "L" Street and North "J" Street	180,800	159,809	20,991
19	Along South 3rd Street between Quincy Avenue and Madison Avenue	150,600	133,115	17,485
20	Along Highway 99 from Whiteaker Avenue to Villard Avenue	431,400	414,446	16,954
21	Along South 12th Street between Dublin and Adams Avenue	760,400	721,391	39,009
22	Along South 12th Street between Dublin and Adams Avenue	760,400	721,391	39,009
23	West of Highway 99 from Thayer Avenue northwards to North 9th Street	787,000	739,465	47,535
24	Along Highway 99 from Villard Avenue to Thayer Avenue	272,100	254,060	18,040
25	Along South 16th Street from I-5/South 16th to Washington Avenue	361,500	327,772	33,728
26	East of I-5 between Parks Road and Shields Cemetary	150,600	142,874	7,726
27	Along E. Madison Avenue from about 850 ft. east of I-5 to South 16th/Madison	406,700	368,755	37,945
28	Along South 16th between Washington Avenue and Main Street	116,000	107,474	8,526
29	Along Adams Avenue between Gateway Blvd. and South 16th Street	271,100	225,582	45,518
30	Along Jason Lee Avenue from Whitmain Blvd. to the Coast Fork of Willamette F	312,500	260,031	52,469
31	Misc. Proj (Was $45,766 & $9,235; Infrastructure Repl. Budget - Misc. is $50K)	-	-	-
32	Miscellaneous Project	55,000	45,766	9,235
33	Miscellaneous Project	55,000	45,766	9,235
34	Miscellaneous Project	55,000	45,766	9,235
35	Miscellaneous Project	55,000	45,766	9,235
36	Miscellaneous Project	55,000	45,766	9,235
37	Miscellaneous Project	55,000	45,766	9,235
38	Miscellaneous Project	55,000	45,766	9,235
39	Miscellaneous Project	55,000	45,766	9,235

City of Cottage Grove
Stormwater Utility
Capital Improvement Program

Escalate Project Costs to Base Year:	2010

No	Description	Total	Existing	SDC Eligible
40	Miscellaneous Project	55,000	45,766	9,235
41	Miscellaneous Project	55,000	45,766	9,235
42	Miscellaneous Project	55,000	45,766	9,235
43	Miscellaneous Project	55,000	45,766	9,235
44	Miscellaneous Project	55,000	45,766	9,235
45	Miscellaneous Project	55,000	45,766	9,235
46	Miscellaneous Project	55,000	45,766	9,235
47	Miscellaneous Project	55,000	45,766	9,235
48	Miscellaneous Project	55,000	45,766	9,235
49	Miscellaneous Project	55,000	45,766	9,235
50	Miscellaneous Project	55,000	45,766	9,235
51	North Regional Park Ditch Cleaning	475,800	395,913	79,887
52	**NPDES Phase II Evaluation Study**	**100,000**	**100,000**	**-**
53		-		
54	**FY 2010-11 Budgeted Capital Expenditures**	-		
55	Materials & Services	-		
56	71000 Contractual Services	14,000	14,000	-
57	79900 Administrative Fee	23,263	13,021	10,242
58	79910 Engineering Service Fees	80,320	37,072	43,248
59	Capital Outlay	-		
60	83000 Buildings & Improvements	703,999	231,700	472,299
61	83040 Infrastructure Replacement	50,000	50,000	-
62	84000 Motor Vehicles	8,500	8,500	-
63	84010 Work Equipment	49,700	49,700	-
64	84030 Computer Equipment	-		
65		-		
		-		
	Total Capital Projects	**$ 15,418,682**	**$ 13,549,238**	**$ 1,869,444**

City of Cottage Grove
Stormwater Utility
SDC Calculation

Reimbursement Fee		Cost Basis	Unit Basis ESUs
Original Cost of Plant-in-Service		$ 1,999,261	
Unused Capacity		16.4%	
Cost of Unused Capacity		$ 328,207	
less: Outstanding Debt Principal	(195,236)	(32,051)	
Net Reimbursement Fee Cost Basis		**$ 296,156**	
Growth to End of Planning Period			2,672
Reimbursement Fee			**$ 110.8511**
Improvement Fee			
Total Capital Improvement Projects		$ 15,418,682	
less: Cost of Existing Deficiencies		(13,549,238)	
Capacity Expanding CIP		$ 1,869,444	
less: Existing SDC Fund Balance		(408,575)	
Net Cost Basis for Improvement Fee		**$ 1,460,869**	
Growth to End of Planning Period (20 years)			2,672
Improvement Fee			$ 546.80
Total System Development Charge			
Reimbursement Fee			$ 110.85
Improvement Fee			$ 546.80
SDC Subtotal			$ 657.65
plus: Administrative Cost Recovery		1.61%	$10.58
Total Base SDC			**$668.23 per ESU**

CURRENT SDC

Single Family Dwelling Unit	$ 1,254.96
All Other	$ 10,458.10

[roughly equivalent to $600 per ESU]

City of Cottage Grove
SDC Study
Administrative Cost Recovery

Net Annual Administrative Cost related to SDCs (1)	$	10,000
Amortization of SDC Analysis Cost over 5 years (2):	$	10,132
Net Annual SDC Administrative Cost:	**$**	**20,132**

Estimated Annual Proposed SDC Revenues before Admin. Cost:

Water SDC	$	499,610
Wastewater SDC		74,677
Stormwater SDC		87,851
Street SDC		589,218
Parks SDC		-
Estimated Annual Revenue	$	1,251,356

Admin. Cost/Total Annual SDC Revenues **1.61%** on all SDCs

NOTES:

(1) Placeholder

(2)

Cost of:	**$43,865**
at:	**5.0%**
over:	**5** years

(3) Study Period **20** years

APPENDIX I - D

PARKS SDC
SPREADSHEET MODEL OUTPUT

City of Cotttage Grove 2050 OPTION as of: 6/2/2009
Parks & Recreation SDC
Calculation of Growth Portion of Facility Needs

2008 Pop:	9,472		
2050 Pop:	17,500		
Increase	8,034	45.91%	

FACILITY NEEDS / FACILITY TYPE	(a) 2008 Current Units	(b) 2008 Current LOS*	(c) 2050 Planned** Units	(d) 2050 Effective*** LOS*	(e) 2008 Req'd Units at 2050 LOS	(f) 2008 Surplus or (Deficiency	(g) Growth-Required Units	**Growth Portion (Percent)**	
Developed Mini/Neighborhood Parks	6.75	0.71	21.75	1.24	11.77	(5.02)	9.98	**66.5%**	(dev.)
Undeveloped Neighborhood Park Land (acres)	3.73					(1.29)	13.71	**91.4%**	(land)
Developed Community Parks (acres)	97.27	10.27	134.27	7.67	72.67	24.59	37.00	**100.0%**	(dev.)
Undeveloped Community Park Land (acres)	17.67					42.26	54.67	**100.0%**	(land)
Natural Resource Areas (acres)	107.54	11.35	184.54	10.55	99.89	7.66	77.00	**100.0%**	(both)
Developed Greenway/Nodal Parks	31.29	3.30	41.29	2.36	22.35	8.94	10.00	**100.0%**	(dev.)
Undeveloped Greenway/Nodal Park Land (acres)	1.38					10.32	11.38	**100.0%**	(land)
Total All Parks	265.63	28.04	381.85	21.82	206.68	58.95	133.98		(dev.)
							156.76		(land)

* LOS = Level Of Service (acres per 1,000 persons)
** Planned = Current units pluss additional units recommended in Master Plan
*** Effective LOS Calculations based on additional units recommended in Master Plan

APPENDIX

2050 Option — **COTTAGE GROVE PARKS** — page 1

CAPACITY INCREASING PROJECTS LIST — as of: 6/2/2009

A. NEIGHBORHOOD PARKS Project Number / Facility / Action			Estimated Project Cost ($)	Growth-Required Portion (%)	SDC-Eligible Growth Share ($)	Non-Growth Share ($)	Potential Non-SDC Funding Sources	Project Timing Priority
STEWART ORCHARD PARK Develop current undeveloped neighborhood parkland							Sponsorship, partnership, donation, grants, special assessment, local improvement district (LID), general fund, tax levy.	TBD
acres =	0.73	Acquisition	$0	0.0%	$0	$0		
		Development	$182,500	66.5%	$121,393	$61,107		
		Total Cost	$182,500		$121,393	$61,107		
SUNRISE RIDGE PARK Develop current undeveloped neighborhood parkland							Sponsorship, partnership, donation, grants, special assessment, local improvement district (LID), general fund, tax levy.	TBD
acres =	3.00	Acquisition	$0	0.0%	$0	$0		
		Development	$750,000	66.5%	$498,877	$251,123		
		Total Cost	$750,000		$498,877	$251,123		
NEW NEIGHBORHOOD PARK Acquire and develop new neighborhood park.							Sponsorship, partnership, donation, grants, special assessment, local improvement district (LID), general fund, tax levy.	TBD
acres =	3.00	Acquisition	$0	0.0%	$0	$0		
		Planning & Development	$750,000	66.5%	$498,877	$251,123		
		Total Cost	$750,000		$498,877	$251,123		
NEW NEIGHBORHOOD PARK Acquire and develop new neighborhood park.							Sponsorship, partnership, donation, grants, special assessment, local improvement district (LID), general fund, tax levy.	TBD
acres =	3.00	Acquisition	$0	0.0%	$0	$0		
		Planning & Development	$750,000	66.5%	$498,877	$251,123		
		Total Cost	$750,000		$498,877	$251,123		
NEW NEIGHBORHOOD PARK Acquire and develop new neighborhood park.							Sponsorship, partnership, donation, grants, special assessment, local improvement district (LID), general fund, tax levy.	TBD
acres =	3.00	Acquisition	$0	0.0%	$0	$0		
		Planning & Development	$750,000	66.5%	$498,877	$251,123		
		Total Cost	$750,000		$498,877	$251,123		
NEW NEIGHBORHOOD PARK Acquire and develop new neighborhood park.							Sponsorship, partnership, donation, grants, special assessment, local improvement district (LID), general fund, tax levy.	TBD
acres =	2.27	Acquisition	$0	0.0%	$0	$0		
		Planning & Development	$567,500	66.5%	$377,484	$190,016		
		Total Cost	$567,500		$377,484	$190,016		
Sub-Totals for Neighborhood Parks								
Acquisition:			$0		$0	$0		
Development:			$3,750,000		$2,494,386	$1,255,614		
TOTAL NEIGHBORHOOD PARKS PROJECTS:			**$3,750,000**		**$2,494,386**	**$1,255,614**		

B. COMMUNITY PARKS Project Number / Facility / Action			Estimated Project Cost ($)	Growth-Required Portion (%)	SDC-Eligible Growth Share ($)	Non-Growth Share ($)	Potential Non-SDC Funding Sources	Project Timing Priority
NEW COMMUNITY PARK Acquire land and develop a new community park.							Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
acres =	37.00	Acquisition	$3,700,000	100.0%	$3,700,000	$0		
		Development	$3,700,000	100.0%	$3,700,000	$0		
		Total Cost	$7,400,000		$7,400,000	$0		

APPENDIX

2050 Option			COTTAGE GROVE PARKS CAPACITY INCREASING PROJECTS LIST					page 2 6/2/2009
C. NATURAL AREAS Project Number	Facility	Action	Estimated Project Cost ($)	Growth-Required Portion (%)	SDC-Eligible Growth Share ($)	Non-Growth Share ($)	Potential Non-SDC Funding Sources	Project Timing Priority
	NEW NATURAL AREA LAND Acquire upland natural area land.						Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres = 11.00	Acquisition	$110,000	100.0%	$110,000	$0		
		Development	$5,500	100.0%	$5,500	$0		
		Total Cost	$115,500		$115,500	$0		
	NEW NATURAL AREA LAND Acquire upland natural area land.						Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres = 11.00	Acquisition	$110,000	100.0%	$110,000	$0		
		Development	$5,500	100.0%	$5,500	$0		
		Total Cost	$115,500		$115,500	$0		
	NEW NATURAL AREA LAND Acquire upland natural area land.						Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres = 11.00	Acquisition	$110,000	100.0%	$110,000	$0		
		Development	$5,500	100.0%	$5,500	$0		
		Total Cost	$115,500		$115,500	$0		
	NEW NATURAL AREA LAND Acquire upland natural area land.						Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres = 11.00	Acquisition	$110,000	100.0%	$110,000	$0		
		Development	$5,500	100.0%	$5,500	$0		
		Total Cost	$115,500		$115,500	$0		
	NEW NATURAL AREA LAND Acquire upland natural area land.						Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres = 11.00	Acquisition	$110,000	100.0%	$110,000	$0		
		Development	$5,500	100.0%	$5,500	$0		
		Total Cost	$115,500		$115,500	$0		
	NEW NATURAL AREA LAND Acquire upland natural area land.						Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres = 11.00	Acquisition	$110,000	100.0%	$110,000	$0		
		Development	$5,500	100.0%	$5,500	$0		
		Total Cost	$115,500		$115,500	$0		
	NEW NATURAL AREA LAND Acquire upland natural area land.						Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres = 11.00	Acquisition	$110,000	100.0%	$110,000	$0		
		Development	$5,500	100.0%	$5,500	$0		
		Total Cost	$115,500		$115,500	$0		
Sub-Totals for Natural Resource Areas								
Acquisition:			$770,000		$770,000	$0		
Development:			$38,500		$38,500	$0		
TOTAL NATURAL RESOURCE AREA PROJECTS:			**$808,500**		**$808,500**	**$0**		

2050 Option | **COTTAGE GROVE PARKS** | page 3

CAPACITY INCREASING PROJECTS LIST | 6/2/2009

D. GREENWAYS/NODAL PARKS

Project Number	Facility		Action	Estimated Project Cost ($)	Growth-Required Portion (%)	SDC-Eligible Growth Share ($)	Non-Growth Share ($)	Potential Non-SDC Funding Sources	Project Timing Priority
	NEW GREENWAY/NODAL PARK Acquire and develop greenway/nodal park.							Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres =	2.00	Acquisition	$20,000	100.0%	$20,000	$0		
			Development	$20,000	100.0%	$20,000	$0		
			Total Cost	$40,000		$40,000	$0		
	NEW GREENWAY/NODAL PARK Acquire and develop greenway/nodal park.							Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres =	2.00	Acquisition	$20,000	100.0%	$20,000	$0		
			Development	$20,000	100.0%	$20,000	$0		
			Total Cost	$40,000		$40,000	$0		
	NEW GREENWAY/NODAL PARK Acquire and develop greenway/nodal park.							Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres =	2.00	Acquisition	$20,000	100.0%	$20,000	$0		
			Development	$20,000	100.0%	$20,000	$0		
			Total Cost	$40,000		$40,000	$0		
	NEW GREENWAY/NODAL PARK Acquire and develop greenway/nodal park.							Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres =	2.00	Acquisition	$20,000	100.0%	$20,000	$0		
			Development	$20,000	100.0%	$20,000	$0		
			Total Cost	$40,000		$40,000	$0		
	NEW GREENWAY/NODAL PARK Acquire and develop greenway/nodal park.							Sponsorship, partnership, donation, grants, special assessment, general fund, tax levy.	TBD
	acres =	2.00	Acquisition	$20,000	100.0%	$20,000	$0		
			Development	$20,000	100.0%	$20,000	$0		
			Total Cost	$40,000		$40,000	$0		

Sub-Totals for Greenway/Nodal Parks	Estimated Project Cost ($)	SDC-Eligible Growth Share ($)	Non-Growth Share ($)
Acquisition:	$100,000	$100,000	$0
Development:	$100,000	$100,000	$0
TOTAL GREENWAY/NODAL PARKS PROJECTS:	**$200,000**	**$200,000**	**$0**

2050 Option **COTTAGE GROVE PARKS** 6/2/2009

SUMMARY OF GROWTH COSTS AND PRELIMINARY SDC RATES

Improvement Fee-Eligible Costs		**Total**
Neighborhood Park Land (acres)	$	-
Neighborhood Park Development (acres)	$	2,494,386
Community Park Land (acres)	$	3,700,000
Community Park Development (acres)	$	3,700,000
Natural Resource Area Land (acres)	$	770,000
Natural Resource Area Development (acres)	$	38,500
Greenway/Nodal Parks Land (acres)	$	100,000
Greenway/Nodal Parks Development (acres)	$	100,000
Total Growth Costs	$	10,902,886
Total All Costs (including non-growth costs)	*$*	*12,158,500*
Growth Costs as Percentage of Total Costs		*89.67%*

Total System Development Charge		
Compliance Costs (avg. $18,571.41 per year)	$	761,428
Total Growth and Compliance Costs	$	11,664,314
Population Increase		8,034
Cost Per Person	$	1,452

Preliminary SDC Rates	**Persons/Unit**	**Gross SDC Rate**	**Tax Credit**	**Net SDC Rate**
Single Family Dwelling Unit	2.71	$ 3,935	$ (275)	**$ 3,659**
Multi-Family Dwelling Unit	1.87	$ 2,715	$ (71)	**$ 2,644**
Manufactured Housing Unit	1.34	$ 1,946	$ (57)	**$ 1,889**

APPENDIX I - E

TRANSPORTATION SDC
SPREADSHEET MODEL OUTPUT

City of Cottage Grove
Street Fund
Existing Infrastructure Costs for Transportation SDC

Original Cost Method

Utility Plant-in-Service	Capacity Related	Unused Capacity	Used Capacity
Improvement Fee Expenditures (1)	$741,264	$ **689,014**	$52,250
Construction work in progress	$0		$0
less: Net Debt Principal Outstanding (2)	$0	**$0**	$0
less: Grant Contributions (2)	$0	**$0**	$0
Allocable Plant-in-Service	$741,264	$689,014	$52,250

NOTES:
(1) Unused Capacity of Assets Funded by SDC Expenditures.
(2) Not applicable as only assets funded by SDC expenditures are included in this analysis.

Unused Capacity of Assets Funded by SDC Expenditures

Construction Year:	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
Improvement Fee Expenditures [1]:	$ 83,865	$ 33,368	$ 27,086	$ -	$ 5,970	$ 66,573	$ 267,378	$ 227,709	$ 29,315
Percentage For Capacity Increasing Projects:	100%	100%	100%	100%	100%	100%	100%	100%	100%
Applicable SDC Expenditures:	$ 83,865	$ 33,368	$ 27,086	$ -	$ 5,970	$ 66,573	$ 267,378	$ 227,709	$ 29,315
Beginning Population:	**8,890**	9,012	9,136	9,261	9,388	9,517	9,648	9,780	9,780
Current Population (FY 2007):	9,780	9,780	9,780	9,780	9,780	9,780	9,780	9,780	9,780
Ending Population for Study Period FY 2027	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500
% of Capacity Used by Growth to FY 2027	**25%**	**22%**	**19%**	**16%**	**13%**	**9%**	**5%**	**0%**	**0%**
Cost of Unused Capacity:	**$ 63,186**	**$ 26,020**	**$ 21,898**	**$ -**	**$ 5,218**	**$ 60,702**	**$ 254,965**	**$ 227,709**	**$ 29,315**

[1] Buildings and improvements expenditures only.

1990	Population	7,402
	Pop. Factor #1	1.68%
2000	Population	**8,890**
2025	Population Forecast	**12,500**
	Annual Growth Rate	1.37%
2007	Estimated Population	**9,780**

City of Cottage Grove
Street Fund
Transportation CIP

Project	Total Project Cost (2008$)	Share Applied to Growth (2008$)
New Roadways		
Gateway Boulevard Extension - from Taylor Avenue to Cleveland Avenue	$ 3,150,000	$ 2,961,000
R St. Extension - complete from Sweet Ln. to Cleveland Avenue Extension *	$ 630,000	$ 592,200
Cleveland Avenue Extension - from Gateway Boulevard Extension to 6th St.	$ 1,050,000	$ 987,000
Cleveland Avenue Extension - from west end to OR 99 / R Street	$ 4,410,000	$ 4,145,400
Harrison Avenue Extension - complete from OR 99 to Gateway Boulevard *	$ 2,625,000	$ 1,811,250
Other Projects		
Add intersection improvements at the intersection of OR 99 and Cottage Grove Connector *	$ 1,050,000	$ 598,500
Initiate IAMP for I-5/Cottage Grove Connector/OR 99 Corridor *	$ -	$ -
TOTAL COSTS	**$ 12,915,000**	**$ 11,095,350**

*Requires ODOT approval.

City of Cottage Grove
Street Fund
Transportation SDC Calculation

Reimbursement Fee

Improvement Fee Expenditures	$	741,264	
Unused Capacity		93.0%	
Cost of Net Unused Capacity	$	689,014	
Growth to End of Planning Period		7,481	PM Peak Hour Trips (PHT)
Reimbursement Fee	**$**	**92.10**	**per PHT**

Improvement Fee

Total Capital Improvement Projects	$	12,915,000	
less: Cost of Existing Deficiencies		(1,819,650)	
Capacity Expanding CIP	$	11,095,350	
Growth to End of Planning Period		7,481	PM Peak Hour Trips (PHT)
Improvement Fee	**$**	**1,483**	**per PHT**

Total System Development Charge

Reimbursement Fee		$	92.10	per PHT
Improvement Fee		$	1,483.14	per PHT
SDC Subtotal		$	1,575.24	per PHT
plus: Administrative Cost Recovery	1.61%		$25.34	per PHT
Total SDC			**$1,601**	**per PHT**

Example SDCs

Customer Type	Estimated Daily Trips [1]		SDC	Basis
1 SFR	1.01	per DU	$ 1,617	per DU
2 Apartments	0.62	per DU	$ 992	per DU
3 General Office Bldg.	1.49	per 1,000 sq. ft.	$ 2,385	per 1,000 sq. ft.
4 Specialty Retail	2.71	per 1,000 sq. ft.	$ 4,338	per 1,000 sq. ft.
5 Supermarket	6.69	per 1,000 sq. ft.	$ 10,708	per 1,000 sq. ft.
6 Light Industry	0.98	per 1,000 sq. ft.	$ 1,569	per 1,000 sq. ft.

[1] Source: Institute of Transportation Engineers, Trip Generation, Seventh Edition.

CURRENT SDC

$ 775.45 Per Peak Hour Trip

City of Cottage Grove
SDC Study
Administrative Cost Recovery

Net Annual Administrative Cost related to SDCs (1)	$	10,000
Amortization of SDC Analysis Cost over 5 years (2):	$	10,132
Net Annual SDC Administrative Cost:	**$**	**20,132**

Estimated Annual Proposed SDC Revenues before Admin. Cost:

Water SDC	$	499,610
Wastewater SDC		74,677
Stormwater SDC		87,851
Street SDC		589,218
Parks SDC		-
Estimated Annual Revenue	$	1,251,356

Admin. Cost/Total Annual SDC Revenues **1.61%** on all SDCs

NOTES:

(1) Placeholder

(2)

Cost of:	**$43,865**
at:	**5.0%**
over:	**5** years

(3) Study Period **20** years

City of Cottage Grove
Street Fund
Transportation SDC by Land Use

Total SDC **$1,601** per P-HT

ITE Code	Customer Type	Land Use Description	Peak-Hour Trips	Pass-By Trip Factor	Adjusted P-H Ts	Reimburse-ment Fee	Improve-ment Fee	Admin. Cost	Total SDC	Units
110	General Light Industrial	Typically less than 500 employees, free standing and single use. Examples: Printing plants, material testing laboratories, data processing equipment assembly, power stations.	0.98	1	0.98	$ 326	$ 3,484	$ 55	**$ 3,865**	KSF
130	Industrial Park	Industrial Park areas that contain a number of industrial and/or related facilities (mix of manufacturing, service, and warehouse).	0.86	1	0.86	$ 286	$ 3,057	$ 48	**$ 3,391**	KSF
140	Manufacturing	Facilities that convert raw materials into finished products. Typically have related office, warehouse, research, and associated functions.	0.74	1	0.74	$ 246	$ 2,631	$ 42	**$ 2,919**	KSF
151	Mini-Warehouse	Storage Units or Vaults rented for storage of goods. Units are physically separate and access through an overhead door or other common access point. Example: U-Store-It.	0.26	1	0.26	$ 87	$ 924	$ 15	**$ 1,026**	KSF
210	SF Detached	Single family detached housing.	1.01	1	1.01	$ 336	$ 3,590	$ 57	**$ 3,983**	DU
220	Apartment	Rental Dwelling Units within the same building. At least 4 units in the same building. Examples: Quadplexes and all types of apartment buildings.	0.62	1	0.62	$ 206	$ 2,204	$ 35	**$ 2,445**	DU
230	Condo/Townhouse	Residential Condominium/Townhouses under single-family ownership. Minimum of two single family units in the same building structure.	0.52	1	0.52	$ 173	$ 1,848	$ 29	**$ 2,050**	DU
240	Mobile Home	Trailers or Manufactured homes that are sited on permanent foundations. Typically the parks have community facilities (laundry, recreation rooms, pools).	0.59	1	0.59	$ 196	$ 2,097	$ 33	**$ 2,326**	Occupied DU
253	Elderly Housing	Restricted to senior citizens. Contains residential units similar to apartments or condos. Sometimes in self-contained villages. May also contain medical facilities, dining, and some limited, supporting retail.	0.17	1	0.17	$ 57	$ 604	$ 10	**$ 671**	Occupied DU
310	Hotel	Lodging facility that may include restaurants, lounges, meeting rooms, and/or convention facilities. Can include a large motel with these facilities.	0.59	1	0.59	$ 196	$ 2,097	$ 33	**$ 2,326**	Room
320	Motel	Sleeping accommodations and often a restaurant. Free on-site parking and little or no meeting space.	0.47	1	0.47	$ 157	$ 1,671	$ 26	**$ 1,854**	Room
411	Local Park	City-owned parks, varying widely as to location, type, and number of facilities, including boating / swimming facilities, ball fields, and picnic facilities.	0.09	1	0.09	$ 30	$ 320	$ 5	**$ 355**	Acres
417	Regional Park	Regional park authority-owned parks, varying widely as to location, type, and number of facilities, including trails, lakes, pools, ball fields, camp / picnic facilities, and general office space.	0.2	1	0.2	$ 67	$ 711	$ 11	**$ 789**	Acres
430	Golf Course	Includes 9, 18, 27, and 36 hole municipal and private country clubs. Some have driving ranges and clubhouses with pro shops, restaurants, lounges. Many of the muni courses do not include such facilities.	0.3	1	0.3	$ 100	$ 1,066	$ 17	**$ 1,183**	Holes
435	Multipurpose Recreation Facility	Multi-purpose recreational facilities contain two or more of the following land uses at one site: mini-golf, batting cages, video arcade, bumper boats, go-carts, and driving ranges.	3.35	1	3.35	$ 1,116	$ 11,908	$ 188	**$ 13,212**	Acres
444	Movie Theater w/ Matinee	Theaters with one or more screens, and which show daily matinees	0.07	1	0.07	$ 23	$ 249	$ 4	**$ 276**	KSF
493	Health Club	Privately owned with weightlifting and other facilities often including swimming pools, hot tubs, saunas, racquet ball, squash, and handball courts.	5.76	1	5.76	$ 1,918	$ 20,475	$ 323	**$ 22,716**	KSF
494	Bowling Alley	Recreational facilities with bowling lanes which may include a small lounge, restaurant or snack bar.	3.54	1	3.54	$ 1,179	$ 12,584	$ 199	**$ 13,962**	Lanes
495	Recreational Community Center	Recreational community centers are facilities similar to and including YMCAs, often including classes, day care, meeting rooms, swimming pools, tennis racquetball, handball, weightlifting equipment, locker rooms, & food service.	1.64	1	1.64	$ 546	$ 5,830	$ 92	**$ 6,468**	KSF
520	Elementary School	Public. Typically serves K-6 grades.	0.28	1	0.28	$ 93	$ 995	$ 16	**$ 1,104**	Student
522	Middle School	Public. Serves students that completed elementary and have not yet entered high school.	0.15	1	0.15	$ 50	$ 533	$ 8	**$ 591**	Student
530	High School	Public. Serves students that completed middle or junior high school.	0.14	1	0.14	$ 47	$ 498	$ 8	**$ 553**	Student
540	Junior/Community College	Two-year junior colleges or community colleges.	0.12	1	0.12	$ 40	$ 427	$ 7	**$ 474**	Student
560	Church	Contains worship area and may include meeting rooms, classrooms, dining area and facilities.	0.66	1	0.66	$ 220	$ 2,346	$ 37	**$ 2,603**	KSF
565	Day Care	Facility for pre-school children care primarily during daytime hours.	13.18	0.33	4.35	$ 1,449	$ 15,463	$ 244	**$ 17,156**	KSF
		May include classrooms, offices, eating areas, and playgrounds.	0.86	0.33	0.28	$ 93	$ 995	$ 16	**$ 1,104**	Student
590	Library	Public or Private. Contains shelved books, reading rooms or areas, sometimes meeting rooms.	7.09	1	7.09	$ 2,361	$ 25,203	$ 398	**$ 27,962**	KSF
591	Lodge/Fraternal Organization	Includes a club house with dining and drinking facilities, recreational and entertainment areas, and meeting rooms.	0.03	1	0.03	$ 10	$ 107	$ 2	**$ 119**	Members
710	General Office	Office building with multiple tenants. Mixture of tenants can include professional services, bank and Loan institutions, restaurants, snack bars, and service retail facilities.	1.49	1	1.49	$ 496	$ 5,297	$ 84	**$ 5,877**	KSF
715	Single Tenant Office Building	Single tenant office building. Usually contains offices, meeting rooms, file storage areas, data processing, restaurant or cafeteria, and other service functions.	1.73	1	1.73	$ 576	$ 6,150	$ 97	**$ 6,823**	KSF
720	Medical-Dental Office	Provides diagnosis and outpatient care on a routine basis. Typically operated by one or more private physicians or dentists.	3.72	1	3.72	$ 1,239	$ 13,224	$ 209	**$ 14,672**	KSF
750	Office Park	Park or campus-like planned unit development that contains office buildings and support services such as banks & loan institutions, restaurants, service stations.	1.5	1	1.5	$ 500	$ 5,332	$ 84	**$ 5,916**	KSF
760	Research & Development Center	Single building or complex of buildings devoted to research & development. May contain offices and light fabrication facilities.	1.08	1	1.08	$ 360	$ 3,839	$ 61	**$ 4,260**	KSF

City of Cottage Grove
Street Fund
Transportation SDC by Land Use

Total SDC **$1,601** per P-HT

ITE Code	Customer Type	Land Use Description	Peak-Hour Trips	Pass-By Trip Factor	Adjusted P-H Ts	Reimburse-ment Fee	Improve-ment Fee	Admin. Cost	Total SDC	Units
770	Business Park	Group of flex-type or incubator 1 - 2 story buildings served by a common roadway system. Tenant space is flexible to accommodate a variety of uses. Rear of building usually served by a garage door. Typically includes a mix of offices, retail & wholesal	1.29	1	1.29	$ 430	$ 4,586	$ 72	**$ 5,088**	KSF
812	Building Materials & Lumber	Small, free standing building that sells hardware, building materials, and lumber. May include yard storage and shed storage areas. The storage areas are not included in the GLA needed for trip generation estimates.	4.49	1	4.49	$ 1,495	$ 15,961	$ 252	**$ 17,708**	KSF
813	Discount Super Store	A free-standing discount store that also contains a full service grocery dept. under one roof.	3.87	0.68	2.63	$ 876	$ 9,349	$ 148	**$ 10,373**	KSF
814	Specialty Retail	Small strip shopping centers containing a variety of retail shops that typically specialize in apparel, hard goods, serves such as real estate, investment, dance studios, florists, and small restaurants.	2.71	1	2.71	$ 903	$ 9,633	$ 152	**$ 10,688**	KSF
815	Discount Store	A free-standing discount store that offers a variety of customer services, centralized cashiering, and a wide range of products under one roof. Does not include a full service grocery dept. like Land Use 813, Free-standing Discount Superstore.	5.06	0.83	4.2	$ 1,399	$ 14,930	$ 236	**$ 16,565**	KSF
816	Hardware/Paint Store	Typically free-standing buildings with off-street parking that sell paints and hardware.	4.84	0.74	3.58	$ 1,192	$ 12,726	$ 201	**$ 14,119**	KSF
817	Nursery/Garden Center	Free-standing building with yard containing planting or landscape stock. May have large green houses and offer landscape services. Typically have office, storage, and shipping facilities. GLA is Building GLA, not yard and storage GLA.	3.8	1	3.8	$ 1,266	$ 13,508	$ 213	**$ 14,987**	KSF
820	Shopping Center	Integrated group of commercial establishments that is planned,				$ -	$ -	$ -		
	< 50,000 sq ft	developed, owned, and managed as a unit. Provides enough on-site	8.57	0.66	5.66	$ 1,885	$ 20,120	$ 318	**$ 22,323**	KSF
	51,000 - 100,000 sq ft	parking to serve its own parking demand. May include non-	6.92	0.66	4.57	$ 1,522	$ 16,245	$ 257	**$ 18,024**	KSF
	101,000 - 150,000 sq ft	merchandising facilities such as office buildings, movie theatres, r	5.82	0.66	3.84	$ 1,279	$ 13,650	$ 216	**$ 15,145**	KSF
	151,000 - 200,000 sq ft		5.19	0.66	3.43	$ 1,142	$ 12,193	$ 193	**$ 13,528**	KSF
	> 200,000 sq ft		4.77	0.66	3.15	$ 1,049	$ 11,198	$ 177	**$ 12,424**	KSF
931	Quality Restaurant	High quality eating establishment with slower turnover rates (more than one hour).	7.49	0.56	4.19	$ 1,395	$ 14,894	$ 235	**$ 16,524**	KSF
933	High Turnover Sit-Down Rest.	Sit-Down eating establishment with turnover rates of less than one hour.	10.92	0.57	6.22	$ 2,071	$ 22,111	$ 349	**$ 24,531**	KSF
934	Fast Food w/o Drive-Thru	Fast Food but no drive-through window	26.15	0.5	13.08	$ 4,356	$ 46,496	$ 734	**$ 51,586**	KSF
935	Fast Food With Drive-Thru	Fast Food with drive-through window	34.64	0.5	17.32	$ 5,768	$ 61,569	$ 972	**$ 68,309**	KSF
936	Drinking Place	Contains a bar where alcoholic beverages and snacks are serviced and possibly some type of entertainment such as music, games, or pool tables	11.34	1	11.34	$ 3,777	$ 40,311	$ 637	**$ 44,725**	KSF
841	New Car Sales	New Car dealership with sales, service, parts, and used vehicles	2.64	1	2.64	$ 879	$ 9,385	$ 148	**$ 10,412**	KSF
944	Gas Station	Sell gasoline and may also provide vehicle service and repair. Does not have Convenience Market and/or Car Wash.	13.86	0.58	8.04	$ 2,678	$ 28,580	$ 451	**$ 31,709**	Fueling Positions
945	Gas/Service Station with Convenience Market	Selling gas and Convenience Market are the primary business. May also contain facilities for service and repair. Does not include Car Wash.	13.38	0.44	5.89	$ 1,962	$ 20,938	$ 331	**$ 23,231**	Fueling Positions
946	Gas/Service Station with Convenience Market, Car Wash	Selling gas, Convenience Market, and Car Wash are the primary business. May also contain facilities for service and repair.	13.33	1	13.33	$ 4,439	$ 47,385	$ 748	**$ 52,572**	Fueling Positions
947	Self-Service Car Wash	Allows manual cleaning of vehicles by providing stalls for the driver to park and wash.	5.54	1	5.54	$ 1,845	$ 19,693	$ 311	**$ 21,849**	Wash Stalls
848	Tire Store	Primary business is tire sales and repair. Generally does not have a large storage or warehouse area.	4.15	0.72	2.99	$ 996	$ 10,629	$ 168	**$ 11,793**	KSF
850	Supermarket	Free-standing grocery store. May also contain ATMs, photo centers, pharmacies, video rental areas.	10.45	0.64	6.69	$ 2,228	$ 23,781	$ 376	**$ 26,385**	KSF
851	Convenience Market	Sells convenience foods, newspapers, magazines, and often Beer & Wine. Does not have gas pumps.	52.41	0.39	20.44	$ 6,807	$ 72,659	$ 1,148	**$ 80,614**	KSF
880	Pharmacy w/o drive through	Facilities that fulfill medical Prescriptions	8.42	0.47	3.96	$ 1,319	$ 14,077	$ 222	**$ 15,618**	KSF
881	Pharmacy w/ drive through	Facilities that fulfill medical Prescriptions	8.62	0.51	4.4	$ 1,465	$ 15,641	$ 247	**$ 17,353**	KSF
890	Furniture Store	Sells furniture, accessories, and often carpet/floor coverings.	0.46	0.47	0.22	$ 73	$ 782	$ 12	**$ 867**	KSF
911	Walk-In Bank	Usually a Free-standing building with a parking lot. Does not have drive-up windows. May have ATMs.	33.15	1	33.15	$ 11,040	$ 117,841	$ 1,861	**$ 130,742**	KSF
912	Drive-In Bank	Provides Drive-up and walk-in bank services. May have ATMs.	45.74	0.53	24.24	$ 8,073	$ 86,168	$ 1,361	**$ 95,602**	KSF

NOTES:

Source: Institute of Transportation Engineers, *Trip Generation* , Seventh Edition.

Land Use Units:

KSF = 1,000 gross square feet building area
DU = dwelling unit
Room = number of rooms for rent
Fueling Positions = maximum number of vehicles that can be served simultaneously
Student = number of full-time equivalent students enrolled

APPENDIX II

PRESENTATION MATERIALS



City of Cottage Grove

Council Workshop

September 20, 2010

Update

FCS GROUP
Solutions-Oriented Consulting

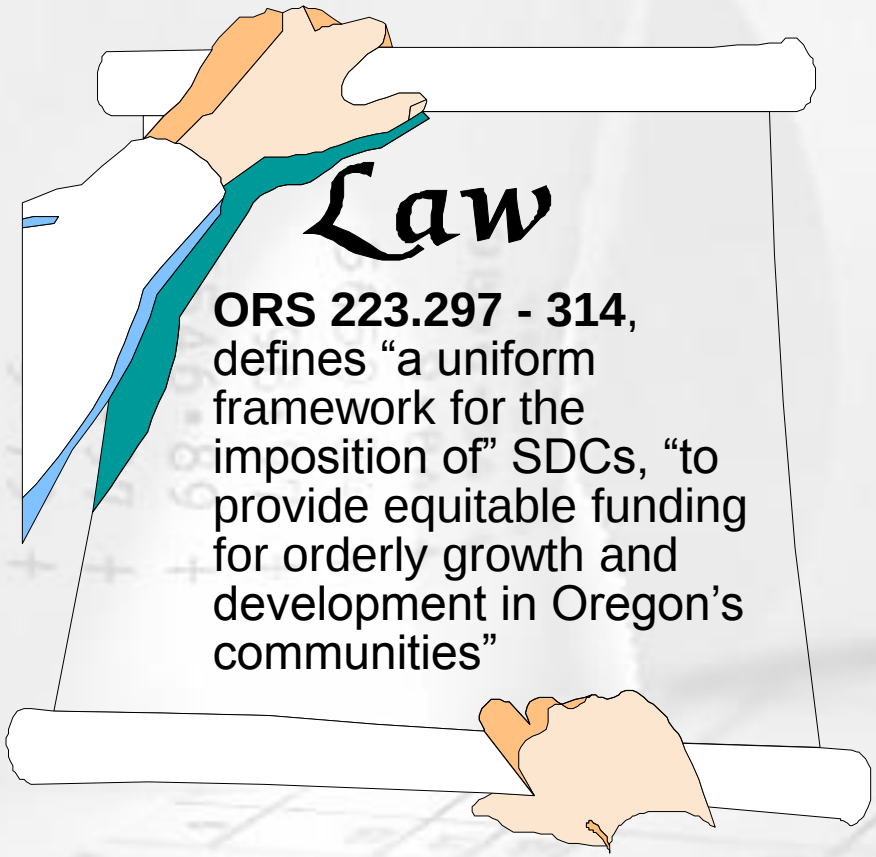
Redmond Town Center, 7525 166th Avenue NE, Suite D-215,
Redmond, WA 98052; T: (425) 867-1802 F: (425) 867-1937 www.fcsgroup.com

Agenda

- System Development Charges
  - ✓ Water
  - ✓ Wastewater
  - ✓ Stormwater
  - ✓ Transportation
  - ✓ Parks
- Questions

System Development Charges

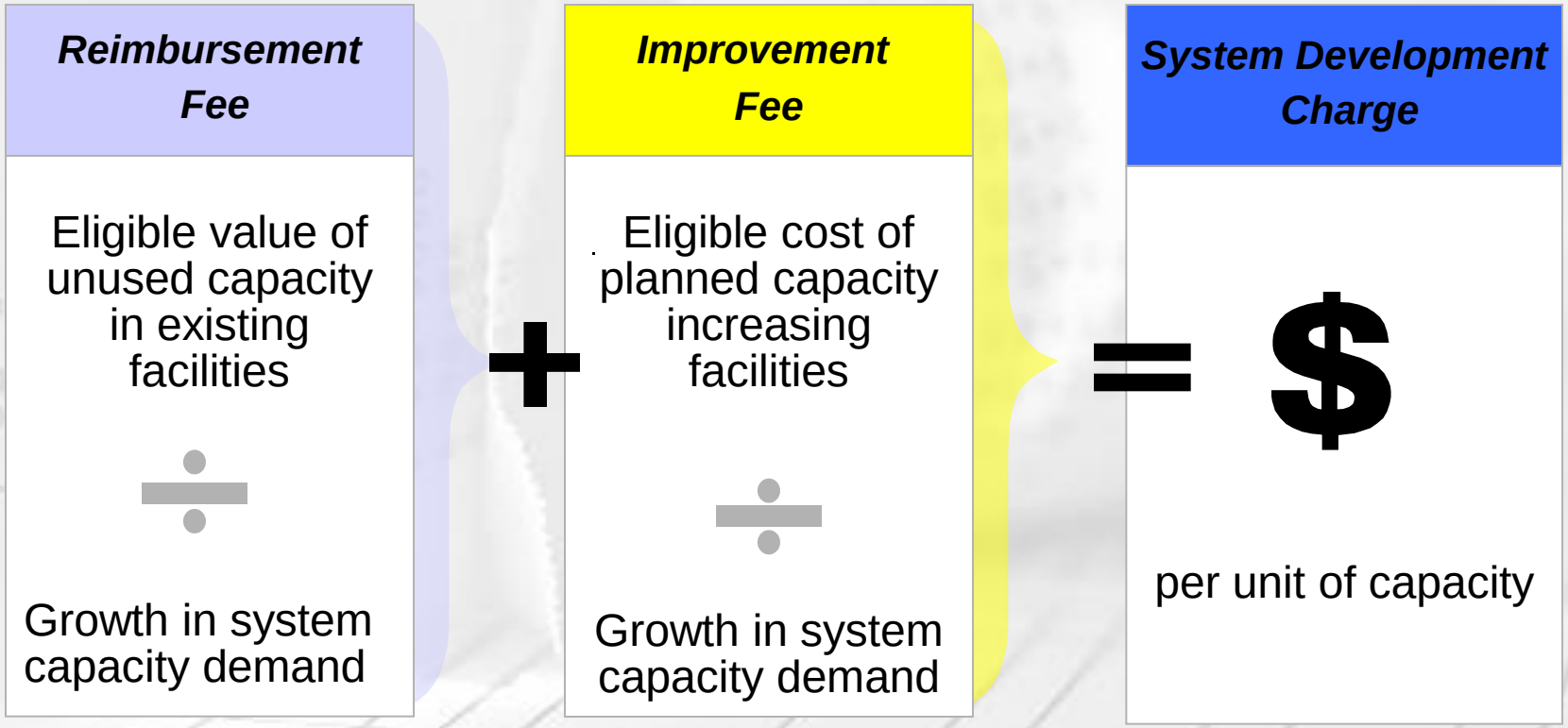
SDC Background



Key Characteristics

1. SDCs are one-time charges, not ongoing rates.
2. SDCs are for capital only, in both their calculation and in their use.
3. Properties which are already developed do not pay SDCs unless they "redevelop".
4. SDCs include both future and existing cost components.
5. SDCs are for general facilities, not "local" facilities.

SDC Methodology



Calculation of Water SDC

Reimbursement Fee		Cost Basis	Unit Basis: Meter Equivalents	Unit Basis: Fixture Units
Original Cost of Plant-in-Service		$ 19,637,644		
Unused Capacity		27.2%		
Cost of Unused Capacity		$ 5,347,080		
less: Outstanding Debt Principal	(11,241,850)	(3,061,012)		
Net Reimbursement Fee Cost Basis		**$ 2,286,068**		
Growth to End of Planning Period			1,463	44,655
Reimbursement Fee			**$ 1,563**	**$ 51**
Improvement Fee				
Total Capital Improvement Projects		$ 18,486,746		
less: Cost of Existing Deficiencies		(10,700,436)		
Capacity Expanding CIP		$ 7,786,309		
less: Existing SDC Fund Balance		(80,118)		
Net Cost Basis for Improvement Fee		**$ 7,706,191**		
Growth to End of Planning Period (20 years; 2008-2027)			1,463	44,655
Improvement Fee			**$ 5,267**	**$ 173**
Total System Development Charge				
Reimbursement Fee			$ 1,563	$ 51
Improvement Fee (Base)			$ 5,267	$ 173
SDC Subtotal			$ 6,830	$ 224
plus: Administrative Cost Recovery		1.61%	$ 110	$ 4
Total Base SDC			**$6,940** per Meter Equivalent	**$228** per Fixture Unit

Existing water SDC is $30.39 per fixture unit.

Calculated Water SDCs by Meter Size

Meter Size	Flow Factors	SDC
3/4" x 5/8"	1	$ 6,940
1"	2.5	17,350
1-1/2"	5	34,700
2"	8	55,520
3"	16	111,040
4"	25	173,500
6"	50	347,000
8"	80	555,200
10"	125	867,500

Calculation of Wastewater SDCs

Reimbursement Fee		Cost Basis	Unit Basis: Meter Equivalents	Unit Basis: Fixture Units
Original Cost of Plant-in-Service		$ 15,667,906		
Unused Capacity		17.4%		
Cost of Unused Capacity		$ 2,729,486		
less: Outstanding Debt Principal	(10,386,741)	(1,809,461)		
Net Reimbursement Fee Cost Basis		**$ 920,025**		
Growth to End of Planning Period			1,337	32,910
Reimbursement Fee			**$ 688**	**$ 28**
Improvement Fee				
Total Capital Improvement Projects		$ 6,323,087		
less: Cost of Existing Deficiencies		(5,406,028)		
Capacity Expanding CIP		$ 917,059		
less: Existing SDC Fund Balance		(343,340)		
Net Cost Basis for Improvement Fee		**$ 573,719**		
Growth to End of Planning Period (20 years; 2008-2027)			1,337	32,910
Improvement Fee			**$ 429**	**$ 17**
Total System Development Charge				
Reimbursement Fee			$ 688	$ 28
Improvement Fee			$ 429	$ 17
SDC Subtotal			$ 1,117	$ 45
plus: Administrative Cost Recovery		1.61%	$ 18	$ 1
Total SDC			**$1,135** per Meter Equivalent	**$46** per Fixture Unit

Existing wastewater SDC is $45.61 per fixture unit.

Calculated Wastewater SDCs by Meter Size

Meter Size	Flow Factors	SDC
3/4" x 5/8"	1	$ 1,135
1"	2.5	2,838
1-1/2"	5	5,675
2"	8	9,080
3"	16	18,160
4"	25	28,375
6"	50	56,750
8"	80	90,800
10"	125	141,875

Calculation of Stormwater SDC

Reimbursement Fee		Cost Basis	Unit Basis ESUs
Original Cost of Plant-in-Service		$ 1,999,261	
Unused Capacity		16.4%	
Cost of Unused Capacity		$ 328,207	
less: Outstanding Debt Principal	(195,236)	(32,051)	
Net Reimbursement Fee Cost Basis		**$ 296,156**	
Growth to End of Planning Period			2,672
Reimbursement Fee			**$ 110.8511**
Improvement Fee			
Total Capital Improvement Projects		$ 15,418,682	
less: Cost of Existing Deficiencies		(13,549,238)	
Capacity Expanding CIP		$ 1,869,444	
less: Existing SDC Fund Balance		(408,575)	
Net Cost Basis for Improvement Fee		**$ 1,460,869**	
Growth to End of Planning Period (20 years)			2,672
Improvement Fee			$ 546.80
Total System Development Charge			
Reimbursement Fee			$ 110.85
Improvement Fee			$ 546.80
SDC Subtotal			$ 657.65
plus: Administrative Cost Recovery		1.61%	$10.58
Total Base SDC			**$668.23 per ESU**

Existing stormwater SDCs:

- Single family dwelling unit $1,254.96
- All Others $10,458.10 per acre (roughly $636 per ESU)

Equivalent Service Unit (ESU):

- One single family dwelling unit equals one ESU.
- For all other customers, one ESU is 2,650 sq. ft. of impervious surface area.

Calculation of Transportation SDCs

Reimbursement Fee

Improvement Fee Expenditures		$ 741,264	
Unused Capacity		93.0%	
Cost of Net Unused Capacity		$ 689,014	
Growth to End of Planning Period		7,481	PM Peak Hour Trips (PHT)
Reimbursement Fee		**$ 92.10**	**per PHT**

Improvement Fee

Total Capital Improvement Projects		$ 12,915,000	
less: Cost of Existing Deficiencies		(1,819,650)	
Capacity Expanding CIP		$ 11,095,350	
Growth to End of Planning Period		7,481	PM Peak Hour Trips (PHT)
Improvement Fee		**$ 1,483**	**per PHT**

Total System Development Charge

Reimbursement Fee		$ 92.10	per PHT
Improvement Fee		$ 1,483.14	per PHT
SDC Subtotal		$ 1,575.24	per PHT
plus: Administrative Cost Recovery	1.57%	$24.80	per PHT
Total SDC		**$1,600**	**per PHT**

Existing transportation SDC is $775.45 per peak hour trip.

Transportation SDC: Application Examples

Customer Type	Estimated Daily Trips [1]	SDC	Basis
1 SFR	1.01 per DU	$ 1,616	per DU
2 Apartments	0.62 per DU	$ 992	per DU
3 General Office Bldg.	1.49 per 1,000 sq. ft.	$ 2,384	per 1,000 sq. ft.
4 Specialty Retail	2.71 per 1,000 sq. ft.	$ 4,336	per 1,000 sq. ft.
5 Supermarket	6.69 per 1,000 sq. ft.	$ 10,704	per 1,000 sq. ft.
6 Light Industry	0.98 per 1,000 sq. ft.	$ 1,568	per 1,000 sq. ft.

[1] Source: Institute of Transportation Engineers, Trip Generation, Seventh Edition.

Partial list only

Calculation of Parks SDC

Improvement Fee-Eligible Costs		Total
Neighborhood Park Land (acres)	$	-
Neighborhood Park Development (acres)	$	2,494,386
Community Park Land (acres)	$	3,700,000
Community Park Development (acres)	$	3,700,000
Natural Resource Area Land (acres)	$	770,000
Natural Resource Area Development (acres)	$	38,500
Greenway/Nodal Parks Land (acres)	$	100,000
Greenway/Nodal Parks Development (acres)	$	100,000
Total Growth Costs	$	10,902,886
Total All Costs (including non-growth costs)	*$*	*12,158,500*
Growth Costs as Percentage of Total Costs		*89.67%*

Total System Development Charge		
Compliance Costs (avg. $18,571.41 per year)	$	761,428
Total Growth and Compliance Costs	$	11,664,314
Population Increase		8,034
Cost Per Person	$	1,452

Existing parks SDC:

- $238.60 per single family dwelling unit

NOTE: Planning period is 42 years; 2008 through 2050.

Preliminary SDC Rates	Persons/Unit	Gross SDC Rate	Tax Credit	Net SDC Rate
Single Family Dwelling Unit	2.71	$ 3,935	$ (275)	**$ 3,659**
Multi-Family Dwelling Unit	1.87	$ 2,715	$ (71)	**$ 2,644**
Manufactured Housing Unit	1.34	$ 1,946	$ (57)	**$ 1,889**

SDC Comparison

Jurisdiction	Water	Wastewater	Stormwater	Parks	Transportation	TOTAL
Silverton	$ 4,130	$ 4,505	$ 1,462	$ 4,156	$ 3,908	$ 18,161
Springfield / Springfield UB [2]	3,171	4,938	991	3,468	2,250	14,818
Prineville	2,587	7,238	-	1,887	2,925	14,637
Cottage Grove - Proposed	**6,940**	**1,135**	**668**	**3,659**	**1,616**	**14,018**
Saint Helens [3]	2,530	3,738	689	1,362	3,847	12,166
Veneta [4]	1,937	4,754	145	3,283	1,738	11,858
Creswell [3]	5,026	4,520	-	1,539	597	11,682
Eugene [5]	3,251	2,015	539	3,935	1,732	11,471
Independence [6]	2,357	3,445	793	1,678	3,115	11,388
Stayton	2,670	3,528	-	2,305	2,562	11,065
Florence	3,353	4,200	1,932	-	815	10,300
Junction City [3]	1,100	6,849	-	1,090	1,116	10,155
Lowell [7]	5,344	1,313	568	985	625	8,835
Monmouth [8]	1,413	2,753	201	1,484	394	6,245
Coburg [9]	1,239	-	-	2,600	850	4,688
Cottage Grove - Existing	**775**	**692**	**1,255**	**234**	**776**	**3,732**
North Bend [10]	3,585	-	-	-	-	3,585
Sweet Home	1,215	624	-	-	-	1,839
La Grande [11]	-	-	-	525	-	525
Astoria [12]	-	-	-	-	-	-
Baker City [12]	-	-	-	-	-	-

[1] Stormwater SDC is $260 per 1,000 sq. ft. of impervious surface. The charge is calculated based on 2,650 sq. ft. impervious surface.

[2] Springfield Utility Board provides the water service. Water SDC represents the Level One SDC which is the minimum. Depending on the zone and elevation, the charge may go up as high as $7,756. Wastewater SDC included City's sanitary sewer SDC (based on 20 fixture units) and MWMC regional SDC ($1,117.07). Stormwater SDC is $0.374 per sq. ft. and the charge is based on 2,650 sq. ft. impervious surface area. The City of Springfield also charges an additional 5% administrative fee. Parks SDC is collected by the City of Springfield for the Willamalane Parks & Recreation District.

[3] There is an additional 5% administrative charge.

[4] There is an additional 4% administrative charge. Stormwater, Parks, and Transportaion SDCs are scheduled to increase annually Jan. 1st by 20-City ENR index.

[5] Water service is provided by Eugene Water and Electric Board. Sewer SDC includes City of Eugene and Metropolitan Wastewater Management Commission (MWMC) charges. City's SDC is calculated based on 2,000 sq. ft. living area. Stormwater SDC represents medium residential user category which assumes building footprint greater than 1,000 sq. ft. and less that 3,000 sq. ft. The City of Eugene charges an additional 9% (minimum of $80) administrative fee.

[6] City of Independence adjusts its SDC in May based on Seattle cost of living index.

[7] There is an additional 3% administrative charge.

[8] Stormwater SDC is $0.076 per sq. ft. of impervious area. The charge shown is based on 2,650 sq. ft. impervious surface.

[9] City of Coburg SDCs have only increased a few dollars due to inflation over the last couple years.

[10] Water service is provided by the Coos Bay - North Bend Water Board. The City does not charge any SDC for the other services.

[11] City of La Grande has only parks SDC.

[12] City does not charge SDCs.

Questions