City of Coburg

SYSTEM DEVELOPMENT CHARGE UPDATE

DRAFT REPORT
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Section I. INTRODUCTION

This section describes the policy context and project scope upon which the body of this report is based.

I.A. SYSTEM DEVELOPMENT CHARGES

Oregon Revised Statutes (ORS) 223.297 to 223.314 authorize local governments to establish system development charges (SDCs), one-time fees on new development paid at the time of development. SDCs are intended to recover a fair share of the cost of existing and planned facilities that provide capacity to serve future growth.

ORS 223.299 defines two types of SDCs:

- A reimbursement fee designed to recover "costs associated with capital improvements already constructed, or under construction when the fee is established, for which the local government determines that capacity exists"
- An improvement fee designed to recover "costs associated with capital improvements to be constructed"

ORS 223.304(1) states, in part, that a reimbursement fee must be based on "the value of unused capacity available to future system users or the cost of existing facilities" and must account for prior contributions by existing users and any gifted or grant-funded facilities. The calculation must "promote the objective of future system users contributing no more than an equitable share to the cost of existing facilities." A reimbursement fee may be spent on any capital improvement related to the system for which it is being charged (whether cash-financed or debt-financed) and on the costs of compliance with Oregon's SDC law.

ORS 223.304(2) states, in part, that an improvement fee must be calculated to include only the cost of projected capital improvements needed to increase system capacity for future users. In other words, the cost 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. An improvement fee may be spent only on capital improvements (or portions thereof) that increase the capacity of the system for which it is being charged (whether cash-financed or debt-financed) and on the costs of compliance with Oregon's SDC law.

I.B. UPDATING THE SDCS

The City of Coburg (City) contracted with FCS GROUP to develop an SDC methodology and recommend fees for four of the facility types listed in ORS 223.299(1)(a): water, wastewater, transportation, and parks. We conducted the study using the following general approach:

- **Policy Framework for Charges**. In this step, we worked with City staff to identify and agree on the approach to be used and the components to be included in the analysis.
- **Technical Analysis**. In this step, we worked with City staff to isolate the recoverable portion of facility costs and calculate SDC rates.
- **Methodology Report Preparation**. In this step, we documented our calculations and recommendations in this report.

I.C. CALCULATION OVERVIEW

In general, SDCs are calculated by adding a reimbursement fee component and an improvement fee component—both with potential adjustments. Each component is calculated by dividing the eligible cost by growth in units of demand. The unit of demand becomes the basis of the charge. **Table 1** shows this calculation in equation format:

Table 1. SDC Equation

Eligible costs of available capacity in existing facilities / Units of growth in demand	+	Eligible costs of capacity-increasing capital improvements / Units of growth in demand	+	Pro-rata share of costs of complying with Oregon SDC law	=	SDC per unit of growth in demand

I.C.1. Reimbursement Fee

The reimbursement fee is the cost of available capacity per unit of growth that such available capacity will serve. In order for a reimbursement fee to be calculated, unused capacity must be available to serve future growth. For facility types that do not have available capacity, no reimbursement fee may be calculated.

I.C.2. Improvement Fee

The improvement fee is the cost of planned capacity-increasing capital projects per unit of growth that those projects will serve. The unit of growth becomes the basis of the fee. In reality, the capacity added by many projects serves a dual purpose of both meeting existing demand and serving future growth. To compute a compliant improvement fee, growth-related costs must be isolated, and costs related to current demand must be excluded.

We have used the capacity approach to allocate costs to the improvement fee basis.[1] Under this approach, the cost of a given project is allocated to growth by the portion of total project capacity that represents capacity for future users. That portion, referred to as the improvement fee eligibility percentage, is multiplied by the total project cost for inclusion in the improvement fee cost basis.

[1] Two alternatives to the capacity approach are the incremental approach and the causation approach. The incremental requires the computation of hypothetical project costs to serve existing users. Only the incremental cost of the actual project is included in the improvement fee cost basis. The causation approach, which allocates 100 percent of all growth-related projects to growth, is vulnerable to legal challenge.

I.C.3. Adjustments

Two cost basis adjustments are applicable to the SDC calculation: fund balance and compliance costs.

I.C.3.a Fund Balance

All accumulated SDC revenue currently available in fund balance is also deducted from its corresponding cost basis. This practice prevents a jurisdiction from double-charging for projects that were in the previous methodology's improvement fee cost basis but have not yet been constructed.

I.C.3.b Compliance Costs

ORS 223.307(5) authorizes the expenditure of SDCs for "the costs of complying with the provisions of ORS 223.297 to 223.314, including the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures." To avoid spending monies for compliance that might otherwise have been spent on growth-related projects, this report includes an estimate of compliance costs in the SDC calculation.

I.C.4. Growth Calculation

The growth calculation is the basis by which an SDC is charged. Growth for each system is measured in units that most directly reflect the source of demand. For example, in a parks SDC the most applicable and administratively feasible unit of growth is households since the general population uses the parks system.

Section II. WATER

This section provides detailed calculations of the recommended SDC for water facilities.

II.A. GROWTH

For water SDCs, the most applicable and administratively feasible unit of growth is the meter capacity equivalent (MCE). For the City, one MCE equals the flow capacity of a 5/8" x 3/4" water meter. According to the City's water master plan, the water utility had 397 customer accounts in 2016 with a combined flow capacity of 694 MCEs, as shown in **Table 2**:

Table 2. Water Customer Data

	Accounts	Flow Factor	Meter Equivalent
5/8" x 3/4" Meter	350	1.0	350
1" Meter	16	2.5	40
1.5" Meter	8	5.0	40
2" Meter	18	8.0	144
3" Meter	3	15.0	45
4" Meter	1	25.0	25
6" Meter	1	50.0	50
Total	397		694

Source: Coburg Water Master Plan, April 2016. Flow factors based on AWWA.

The water master plan provided a demand growth forecast for the utility through the end of the planning period in 2036. Assuming that water demand increases in proportion to population growth (as projected in the water master plan), MEs will grow at a rate of 4.73 percent annually until reaching 1,745 MCE in 2036. The growth from 694 MCE in 2016 to 1,745 MCE in 2036 (i.e., 1,051 MCE) is the denominator in the SDC equation (**Table 3**).

Table 3. Water Customer Growth

	2016	2036	2016 - 2036 Growth	Growth Share	CAGR
Meter Capacity Equivalents	694	1,745	1,051	60.23%	4.73%

Source: Coburg Water Master Plan.
Abbreviations: CAGR - Compound Annual Growth Rate

II.B. ELIGIBLE COSTS

Below we calculate the eligible cost bases for the SDC including any applicable adjustments.

II.B.1. Reimbursement Fee Cost Basis

The reimbursement fee cost basis is the cost of capacity available in the existing system. Calculation of the reimbursement fee begins with the historical cost of assets or recently completed projects that

have unused capacity to serve future users. For each asset or project, the historical cost is adjusted by that portion of the asset or project that is available to serve future users.

To avoid charging future development for facilities provided at no cost to the City or its ratepayers, the reimbursement fee cost basis must be reduced by any grants or contributions used to fund the assets or projects included in the cost basis. Furthermore, unless a reimbursement fee will be specifically used to pay debt service, the reimbursement fee cost basis should be reduced by any outstanding debt related to the assets or projects included in the cost basis to avoid double charging for assets paid for by other means.

After discussions with City staff and review of the Coburg Water Master Plan, there is no capacity in the system available to serve future users. Therefore, no reimbursement fee cost basis is calculated.

II.B.2. Improvement Fee Cost Basis

The improvement fee cost basis is based on a specific list of planned capacity-increasing capital improvements. The portion of each project that can be included in the improvement fee cost basis is determined by the extent to which each new project creates capacity for future users. **Table 4** shows how a total project cost of $9,995,513 reduces to an eligible cost of $6,054,480.

Table 4. Water Improvement Fee Cost Basis

Project Number	Project	Total Costs (2017)[1]	Non-City Funded Portion	Costs Borne by City	SDC Eligible Percent	SDC Eligible Costs	Timeline
CIP 1	Engineering (Water Master Plan Projects) - Capital Debt	$20,000	$0	$20,000	0.00%	$0	0-5 years
CIP 2	Eastside Water Line/Test Well	400,000	0	400,000	60.23%	240,933	0-5 years
CIP 3	Production Well on Roberts Road	1,275,000	0	1,275,000	100.00%	1,275,000	0-5 years
CIP 4	Reservoir Development	2,175,000	0	2,175,000	75.00%	1,631,250	0-5 years
CIP 5	Vehicle Purchase	35,000	0	35,000	0.00%	0	0-5 years
CIP 6	Hand Held/Meter Replacement	90,000	0	90,000	0.00%	0	0-5 years
PI: 1A	Purchase 2 Acres of property and drill test well at Roberts Road site	[redacted]	0	0	100.00%	0	0-5 years
PI: 1B	400-500 GPM Production well at Roberts Road site (1 or 2 wells)	[redacted]	0	0	100.00%	0	0-5 years
PI: 1C	Pump station at Roberts Road site	[redacted]	0	0	100.00%	0	0-5 years
PI: 2	Install pump control valves at Wells #1 and #2 and install surge anticipator valve at Well #1	36,067	0	36,067	100.00%	36,067	0-5 years
PI: 3	I-5 bore and 12" transmission line	749,913	0	749,913	100.00%	749,913	0-5 years
PI: 4	Remove segments of 6" and 12" AC pipe from distribution system and perform burst and crush tests to determine condition	20,808	0	20,808	0.00%	0	0-5 years
PI: 5	Perform well rehabilitation and maintenance procedures on Wells #1 and #2	49,939	0	49,939	100.00%	49,939	0-5 years
PII: 1	3,750' of 12" transmission line to reservoir site	[redacted]	0	0	75.00%	0	6-10 years
PII: 2	New 750,000 gallon reservoir at city property east of I-5	[redacted]	0	0	75.00%	0	6-10 years
PII: 3	Upgrade of SCADA controls	242,758	0	242,758	75.00%	182,068	6-10 years
PII: 4	12" intertie waterline at Coburg Industrial	108,339	0	108,339	75.00%	81,254	6-10 years
PII: 5	12" intertie waterline at Van Duyn Street	129,251	0	129,251	75.00%	96,938	6-10 years
PII: 6	12" intertie waterline at Vintage Street	323,318	0	323,318	75.00%	242,489	6-10 years
PIII: 1	Replace and demo (2) 500,000 gallon ground level reservoirs with new 1,000,000 gallon reservoir at existing booster pump station site	1,025,824	0	1,025,824	0.00%	0	11-20 years
PIII: 2	I-5 bore and connection to 12" transmission line	604,882	0	604,882	100.00%	604,882	11-20 years
PIII: 3	6" pipeline replacement projects		0	0	0.00%	0	11-20 years
PIII: 3A	Harrison and Macy Streets - 1,045'	111,148	0	111,148	0.00%	0	11-20 years
PIII: 3B	Christian Way - 320'	56,597	0	56,597	0.00%	0	11-20 years
PIII: 3C	Coleman Street (from Mill Street to north end of line) - 540'	74,991	0	74,991	0.00%	0	11-20 years
PIII: 3D	Coleman Street (between Lincoln and Thomas) - 1,408'	137,956	0	137,956	0.00%	0	11-20 years
PIII: 3E	Thomas Street (Coleman to east end of line) - 234'	50,216	0	50,216	0.00%	0	11-20 years
PIII: 3F	East Dixon Street (Diamond Street to east end of line) - 994'	107,542	0	107,542	0.00%	0	11-20 years
PIII: 3G	Delaney Street (between Willamette and Stuart) - 2,226'	200,213	0	200,213	0.00%	0	11-20 years
PIII: 3H	East of Coburg Industrial - 395'	62,257	0	62,257	0.00%	0	11-20 years
PIII: 3I	Maple Street (Coleman to east end of line) - 558'	74,284	0	74,284	0.00%	0	11-20 years
	Well #1 Rebuild	1,834,211	0	1,834,211	47.09%	863,747	0-5 years
	Total	**$9,995,513**	**$0**	**$9,995,513**		**$6,054,480**	

Source: Coburg Water Master Plan and Capital Projects List
1 Costs escalated to 2017 based on Engineering News Record Construction Cost Index for Seattle

The improvement fee cost basis must be reduced by any improvement fee revenue (for the same facility type) currently held by the City. The City currently has a balance of $111,909 in water improvement fees. Reducing the gross improvement fee cost basis of $6,054,480 by this amount results in a net improvement fee cost basis of cost of $5,942,572.

II.B.3. Compliance Costs

As noted in **Section I**, compliance costs are the sum of SDC methodology updates and annual administrative costs. In consultation with City staff, we estimate compliance costs at five percent of the combined reimbursement and improvement cost bases.

II.C. CALCULATED SDC

Dividing the sum of the net cost bases by the projected growth results in the calculated SDC per MCE, as shown in **Table 5**:

Table 5. Water SDC per MCE

Water SDC		Total	SDC-Eligible	Units
Reimbursement Fee				
Excess Capacity of Infrastructure		$ 4,519,082	$ -	
Less: Pro-Rated Debt Principal		(1,069,603)	-	
Reimbursement Fee Cost Basis		$ 3,449,479	$ -	
Growth to End of Planning Period			1,051	MCE
Reimbursement Fee			**$ -**	per MCE
Improvement Fee				
Capacity Expanding CIP		$ 9,995,513	$ 6,054,480	
Less: Fund Balance		(111,909)	(111,909)	
Improvement Fee Cost Basis		$ 9,883,604	$ 5,942,572	
Growth to End of Planning Period			1,051	MCE
Improvement Fee			**$ 5,653**	per MCE
Total System Development Charge				
Reimbursement Fee			**$ -**	per MCE
Improvement Fee			**$ 5,653**	per MCE
Compliance Fee	5%		**$ 283**	per MCE
Total SDC per			**$ 5,936**	per MCE

II.D. SCHEDULE OF SDCS

In order to impose water SDCs on an individual property, the number of MCEs is determined by the size of the property's water meter. The MCE calculation used is based on AWWA flow factors as shown in **Table 6** where one ME is a 5/8" x 3/4" meter.

Table 6. Water SDC Schedule

	Flow Factor	SDC Fee
5/8" x 3/4" Meter	1.0	$5,936
1" Meter	2.5	$14,840
1.5" Meter	5.0	$29,679
2" Meter	8.0	$47,487
3" Meter	15.0	$89,038
4" Meter	25.0	$148,397
6" Meter	50.0	$296,795
8" Meter	80.0	$474,872
10" Meter	115.0	$682,628

Section III. WASTEWATER

This section provides detailed calculations of the recommended SDC for wastewater facilities.

III.A. GROWTH

For wastewater SDCs, a common unit of growth is the equivalent dwelling unit (EDU). For the City, one EDU equals the wastewater flow and loading of an average single-family residence ("210 gpd at residential strengths," according to the wastewater capital improvement plan). According to data provided by the City, the wastewater utility had 765 EDUs in 2014, the base year of the 20-year planning period.

Based on the wastewater capital improvement plan, EDUs will grow at a rate of 2.43 percent annually until reaching 1,235 EDUs in 2034. The growth from 765 EDUs in 2014 to 1,235 EDUs in 2034 (i.e., 471 EDUs) is the denominator in the SDC equation (**Table 7**).

Table 7. Wastewater Customer Growth

	2014	2034	2014 - 2034 Growth	Growth Share	CAGR
Equivalent Residential Units	765	1,235	471	38.11%	2.43%

Source: City of Coburg Wastewater Capital Improvement Plan
Abbreviations: CAGR - Compound Annual Growth Rate

III.B. ELIGIBLE COSTS

Below we calculate the eligible cost bases for the SDC including any applicable adjustments.

III.B.1. Reimbursement Fee Cost Basis

The reimbursement fee cost basis is the cost of capacity available in the existing system. Calculation of the reimbursement fee begins with the historical cost of assets or recently completed projects that have unused capacity to serve future users. For each asset or project, the historical cost is adjusted by that portion of the asset or project that is available to serve future users. As shown in **Table 8,** the wastewater utility has available capacity in both collection and treatment:

Table 8. Wastewater Gross Reimbursement Cost Basis

	Construction Costs	Proptional Share of Non-Construction Improvements	Total Original Cost	Percent Capacity Available for Future Users	SDC-Eligible Costs
Collection	$ 3,395,666	$ 1,755,227.62	$ 5,150,894	38.11%	$ 1,962,922
Treatment	9,166,075	4,737,965	13,904,040	26.98%	3,750,931
Septic Tank Effluent Pumping (STEP) System (Private System)	4,926,840	2,546,695	7,473,535	0.00%	-
Other Contributions (Grants & City Payments)[1]			(8,690,401)	21.54%	(1,871,788)
Total	$ 17,488,581	$ 9,039,888	$ 17,838,068		$ 3,842,065

Source: City of Coburg
1 Contributions allocated as all other assets.

To avoid charging future development for facilities provided at no cost to the City or its ratepayers, the reimbursement fee cost basis must be reduced by any grants or contributions used to fund the assets or projects included in the cost basis. As shown in **Table 8**, when historical contributions of $8,690,401 are adjusted by the overall percentage of available capacity, the reduction to the reimbursement fee cost basis is $1,871,788. The result is a gross reimbursable cost of $3,842,065.

Unless a reimbursement fee will be specifically used to pay debt service, the reimbursement fee cost basis should be reduced by any outstanding debt related to the assets or projects included in the cost basis to avoid double charging for assets paid for by other means. For the wastewater utility, outstanding debt represents 63.17 percent of the original cost of infrastructure. Reducing the gross reimbursement fee cost basis by $2,427,143 results in a net reimbursable cost of $1,414,922.

The reimbursement fee cost basis must also be reduced by any reimbursement fee revenue (for the same facility type) currently held by the City. The City currently has no fund balance of wastewater reimbursement fees.

III.B.2. Improvement Fee Cost Basis

The improvement fee cost basis is based on a specific list of planned capacity-increasing capital improvements. The portion of each project that can be included in the improvement fee cost basis is determined by the extent to which each new project creates capacity for future users. **Table 9** shows how a total project cost of $2,072,969 reduces to an eligible cost of $1,801,138.

Table 9. Wastewater Improvement Fee Cost Basis

Project Number	Project	Total Costs (2013)	Total Costs (2017)[1]	Non-City Funded Portion	Costs Borne by City	SDC Eligible Percent	SDC Eligible Costs	Timeline
CIP 1	Vehicle Purchase		$28,000	$0	$28,000	0%	$0	0-6 years
1	Headworks Structure	86,000	97,922	0	97,922	38%	37,316	0-20 years
2	Additional MBR Filters	520,000	592,085	0	592,085	100%	592,085	6-10 years
3	Additional Treatment Basin	735,000	836,889	0	836,889	100%	836,889	10-20 years
4	Bridge Crane	140,000	159,407	0	159,407	38%	60,748	0-20 years
5	Effluent Storage Pond	195,000	222,032	0	222,032	100%	222,032	6-10 years
6	Additional Cooling	120,000	136,635	0	136,635	38%	52,069	0-20 years
	Total	**$1,796,000**	**$2,072,969**	**$0**	**$2,072,969**		**$1,801,138**	

Source: City of Coburg Wastewater Capital Improvement Plan
1 Costs escalated to 2017 based on Engineering News Record Construction Cost Index for Seattle

The improvement fee cost basis must be reduced by any improvement fee revenue (for the same facility type) currently held by the City. The City currently has a balance of $189,802 in wastewater improvement fees. Reducing the gross improvement fee cost basis of $1,801,138 by this amount results in a net improvement fee cost basis of cost of $1,611,336.

III.B.3. Compliance Costs

As noted in **Section I**, compliance costs are the sum of SDC methodology updates and annual administrative costs. In consultation with City staff, we estimate compliance costs at five percent of the combined reimbursement and improvement cost bases.

III.C. CALCULATED SDC

Dividing the sum of the net cost bases by the projected growth results in the calculated SDC per EDU, as shown in **Table 10**:

Table 10. Wastewater SDC per EDU

Wastewater SDC		Total	SDC-Eligible	Units
Reimbursement Fee				
Excess Capacity of Infrastructure		$26,528,469	$ 3,842,065	
Less: Pro-Rated Debt Principal		(16,137,447)	(2,427,143)	
Reimbursement Fee Cost Basis		$10,391,022	$ 1,414,922	
Growth to End of Planning Period			471	EDU
Reimbursement Fee			**$ 3,006**	per EDU
Improvement Fee				
Capacity Expanding CIP		$ 2,072,969	$ 1,801,138	
Less: Fund Balance		(189,802)	(189,802)	
Improvement Fee Cost Basis		$ 1,883,167	$ 1,611,336	
Growth to End of Planning Period			471	EDU
Improvement Fee			**$ 3,423**	per EDU
Total System Development Charge				
Reimbursement Fee			**$ 3,006**	per EDU
Improvement Fee			**$ 3,423**	per EDU
Compliance Fee	5%		**$ 321**	per EDU
Total SDC per			**$ 6,750**	per EDU

Section IV. TRANSPORTATION

This section provides detailed calculations of the recommended SDC for transportation facilities.

IV.A. GROWTH

For transportation SDCs, a common unit of growth is the average daily person trip (ADPT). For the City, one ADPT equals one person departing from or arriving at a particular property. Based on the household and employment data we analyzed, we estimate that, in 2018, existing development within Coburg generates 19,161 ADPTs.

Assuming that transportation demand increases in proportion to population growth (as projected in the coordinated population forecast for Lane County), ADPTs will grow at a rate of 1.13 percent annually until reaching 23,997 ADPTs in 2038. The growth from 19,161 ADPTs in 2018 to 23,997 ADPTs in 2038 (i.e., 4,836 ADPTs) is the denominator in the SDC equation (**Table 11**).

Table 11. Transportation Demand Growth

	2018	2038	2018 - 2038 Growth	Growth Share	CAGR
Average Daily Person Trips	19,161	23,997	4,836	20.15%	1.13%

Source: U.S. Census, ITE Handbook 9th Edition, the National Household Travel Survey, and Coordinated Population Forecast for Lane County, its Urban Growth Boundaries (UGB), and Area Outside the UGBs, Portland State Population Research Center.

Abbreviations: CAGR - Compound Annual Growth Rate

IV.B. ELIGIBLE COSTS

Below we calculate the eligible cost bases for the SDC including any applicable adjustments.

IV.B.1. Reimbursement Fee Cost Basis

The reimbursement fee cost basis is the cost of capacity available in the existing system. Calculation of the reimbursement fee begins with the historical cost of assets or recently completed projects that have unused capacity to serve future users. For each asset or project, the historical cost is adjusted by that portion of the asset or project that is available to serve future users. As shown in **Table 12,** the transportation system has available capacity in the recently developed Coburg Loop Path:

Table 12. Transportation Gross Reimbursement Cost Basis

	Original Cost	Percent Capacity Available for Future Users	SDC-Eligible Costs
Develop the Coburg Loop Path - Implement the Coburg Loop Path system to provide a low-stress route for pedestrians and cyclists	$ 3,300,000	20.15%	$ 665,077
Assumed Non-City Funded Portion of Project	(2,310,000)	20.15%	(465,554)
Asset Value in Park Inventory	(152,568)	20.15%	(30,748)
Total	$ 837,432		$ 168,775

Source: City of Coburg

To avoid charging future development for facilities provided at no cost to the City or its ratepayers, the reimbursement fee cost basis must be reduced by any grants or contributions used to fund the assets or projects included in the cost basis. As shown in **Table 12**, we make two adjustments. The first adjustment is for the portion of the project funded by an agency other than the City. The second adjustment is for the portion of the project that is listed in the assets of the parks system. The result is a gross reimbursable cost of $168,775.

Unless a reimbursement fee will be specifically used to pay debt service, the reimbursement fee cost basis should be reduced by any outstanding debt related to the assets or projects included in the cost basis to avoid double charging for assets paid for by other means. However, there is transportation-related debt outstanding.

The reimbursement fee cost basis must also be reduced by any reimbursement fee revenue (for the same facility type) currently held by the City. The City currently has a balance of $9,171 in transportation reimbursement fees.

IV.B.2. Improvement Fee Cost Basis

The improvement fee cost basis is based on a specific list of planned capacity-increasing capital improvements. The portion of each project that can be included in the improvement fee cost basis is determined by the extent to which each new project creates capacity for future users. **Table 13** shows how a total project cost of $13,239,149 reduces to an eligible cost of $2,077,504.

Table 13. Transportation Improvement Fee Cost Basis

Project Number	Project	Total Costs (2013)	Total Costs (2017)[1]	Non-City Funded Portion[2]	Costs Borne by City	SDC Eligible Percent	SDC Eligible Costs	Timeline	Jurisdiction
CIP 1	E Mill and Harrison Streets (capital debt)		$300,000	$0	$300,000	20.15%	$60,462	0-6 years	Coburg
CIP 2	Vehicle purchase		25,000	0	25,000	0.00%	0	0-6 years	Coburg
1	Channelization at intersection of Pearl and Coleman Streets	700,000	774,913	542,439	232,474	20.15%	46,852	16-20 years	Lane County
2	Intersection controls at Dixon and Willamette Streets	1,000,000	1,107,019	774,913	332,106	20.15%	66,932	16-20 years	Lane County
3	Intersection of Van Duyn Street, Coburg Bottom Loop Road and Coburg Road								
3a	Reconstruct intersection with pedestrian improvements	140,000	154,983	108,488	46,495	20.15%	9,370	0-5 years	Lane County
3b	Construct gateway	Varies	0	0	0	20.15%	0	6-10 years	Lane County
3c	Reconstruct intersection with new curb radii	82,000	90,776	63,543	27,233	20.15%	5,488	6-10 years	Lane County
3d	Add striping as traffic calming	14,000	15,498	10,849	4,649	20.15%	937	6-10 years	Lane County
4	Few pedestrian crossings on Willamette and Pearl Streets								
4a	Construct marked 'ladder' crossings and signage at key intersections	26,000	28,782	20,148	8,635	20.15%	1,740	6-10 years	Lane County
4b	Add pedestrian refuge islands, street illumination & flexible delineators in addition to marked 'ladder' crossings	Varies	0	0	0	20.15%	0	6-10 years	Lane County
4c	Construct traffic calming measures, like durable pavement markings, or curb bulb-outs	Varies	0	0	0	20.15%	0	6-10 years	Lane County
5	Potential conflicts between bicyclists and cars on Willamette Street - construct buffered bike lanes on Willamette and Van Duyn Streets	92,000	101,846	71,292	30,554	20.15%	6,158	11-15 years	Lane County
6	Pedestrian access and connectivity in neighborhoods								
6a	Maintain existing alleys to increase the number of routes available to pedestrians	Varies	0	0	0	0.00%	0	0-5 years	Coburg
6b	Implement an alleyway beautification program	Varies	0	0	0	0.00%	0	6-10 years	Coburg
6c	Create policies requiring pedestrian connections in new neighborhoods	N/A	0	0	0	0.00%	0	0-5 years	Coburg
8	Bicycle visibility at Pearl and Willamette Streets intersection								
8a	Paint shared right-of-way markings ("sharrows") on Pearl Street	5,000	5,535	3,875	1,661	20.15%	335	6-10 years	Lane County
8b	Continue the westbound bike lane to the intersection of Pearl and Willamette Streets	Varies	0	0	0	20.15%	0	6-10 years	Lane County
9	Develop a bicycle boulevard system - construct bicycle boulevards on low-volume, low-traffic neighborhood streets to provide a less stressful route for bicyclists and pedestrians	43,000	47,602	0	47,602	20.15%	9,594	0-6 years	Coburg
10	Intersection of Willamette and Van Duyn Streets								
10a	Phase 1: Block north and east legs of intersection; emphasize through movement with signage	600,000	664,211	464,948	199,263	20.15%	40,159	6-10 years	Lane County/Coburg
10b	Phase 2: Realign each leg of the intersection to "soften" through route turning angle	1,000,000	1,107,019	774,913	332,106	20.15%	66,932	11-15 years	Lane County/Coburg
11	Emergency access in the west side of town - construct emergency access road from the end of Abby Road west to intersect with Coburg Bottom Loop Road	200,000	221,404	0	221,404	20.15%	44,621	6-10 years	Coburg
12	East-west connectivity in town - construct new east-west Collector street from the east end of Van Duyn Road to Sarah lane through to Coburg Industrial Way	7,700,000	8,524,045	0	8,524,045	20.15%	1,717,923	11-15 years	Coburg
13	Roadside stormwater facility education								
13a	Place signage at stormwater facilities	500	554	0	554	0.00%	0	0-5 years	Coburg
13b	Create a "green streets" retrofit demonstration project that highlights stormwater facilities	62,500	69,189	0	69,189	0.00%	0	6-10 years	Coburg
14	Parking in neighborhoods								
14a	Paint red striping near fire hydrants to discourage parking too close to hydrants	200	221	0	221	0.00%	0	0-5 years	Coburg
14b	Post "No Parking Here to Corner" or similar signs to discourage parking too close to intersections	500	554	0	554	0.00%	0	0-5 years	Coburg
14c	Increase parking enforcement	Varies	0	0	0	0.00%	0	0-5 years	Coburg
	Total	**$11,665,700**	**$13,239,149**	**$2,835,407**	**$10,403,742**		**$2,077,504**		

Source: Coburg Transportation System Plan and Capital Projects List

1 Costs escalated to 2017 based on Engineering News Record Construction Cost Index for Seattle

2 Non-City funded portion of projects assumes all projects with a jurisdiction that includes Lane County will be funded 70% by Lane County. Percentage is based on Oregon Department of Transportation Connect Oregon Program which requires a 30% cash match from local governments.

The improvement fee cost basis must be reduced by any improvement fee revenue (for the same facility type) currently held by the City. The City currently has a balance of $307,687 in transportation improvement fees. Reducing the gross improvement fee cost basis of $2,077,504 by this amount results in a net improvement fee cost basis of cost of $1,769,816.

IV.B.3. Compliance Costs

As noted in **Section I**, compliance costs are the sum of SDC methodology updates and annual administrative costs. In consultation with City staff, we estimate compliance costs at five percent of the combined reimbursement and improvement cost bases.

IV.C. CALCULATED SDC

Dividing the sum of the net cost bases by the projected growth results in the calculated SDC per ADPT, as shown in **Table 14**:

Table 14. Transportation SDC per ADPT

Transportation SDC		Total	SDC-Eligible	Units
Reimbursement Fee				
Excess Capacity of Infrastructure		$ 1,286,199	$ 168,775	
Less: Fund Balance		(9,171)	(9,171)	
Reimbursement Fee Cost Basis		$ 1,277,028	$ 159,604	
Growth to End of Planning Period			4,836	ADPT
Reimbursement Fee			**$ 33**	per ADPT
Improvement Fee				
Capacity Expanding CIP		$13,239,149	$ 2,077,504	
Less: Fund Balance		(307,687)	(307,687)	
Improvement Fee Cost Basis		$12,931,462	$ 1,769,816	
Growth to End of Planning Period			4,836	ADPT
Improvement Fee			**$ 366**	per ADPT
Total System Development Charge				
Reimbursement Fee			**$ 33**	per ADPT
Improvement Fee			**$ 366**	per ADPT
Compliance Fee	5%		**$ 20**	per ADPT
Total SDC per			**$ 419**	per ADPT

IV.D. SCHEDULE OF SDCS

In order to impose transportation SDCs on an individual property, the number of ADPTs is determined by the land use of the property, as shown in **Table 15**.

Table 15. Transportation SDC Schedule

ITE Code	Land Use	Unit	Average Daily Person Trips	Total
21	Commercial Airport	CFD	206.83	$86,640
30	Intermodal Truck Terminal	Acre	105.02	$43,991
110	General Light Industrial	1,000 SFGFA	8.84	$3,705
130	Industrial Park	1,000 SFGFA	8.97	$3,757
140	Manufacturing	1,000 SFGFA	5.09	$2,132
151	Mini-Warehouse	1,000 SFGFA	3.99	$1,670
160	Data Center	1,000 SFGFA	1.66	$697
210	Single-Family Detached Housing	Dwelling uni	15.87	$6,648
220	Apartment	Dwelling uni	10.92	$4,574
230	Residential Condominium/Townhouse	Dwelling uni	9.49	$3,977
240	Mobile Home Park	ODU	8.23	$3,449
254	Assisted Living	Bed	4.31	$1,804
310	Hotel	Room	13.20	$5,528
411	City Park	Acre	10.30	$4,316
417	Regional Park	Acre	8.39	$3,513
430	Golf Course	Acre	8.86	$3,710
444	Movie Theater with Matinee	Movie screer	650.21	$272,369
492	Health/Fitness Club	1,000 SFGFA	50.94	$21,338
495	Recreational Community Center	1,000 SFGFA	46.03	$19,282
520	Elementary School	1,000 SFGFA	11.97	$5,014
522	Middle School/Junior High School	1,000 SFGFA	10.69	$4,477
530	High School	1,000 SFGFA	10.00	$4,188
540	Junior/Community College	1,000 SFGFA	35.97	$15,069
560	Church	1,000 SFGFA	22.21	$9,304
565	Day Care Center	1,000 SFGFA	30.28	$12,685
590	Library	1,000 SFGFA	84.78	$35,513
610	Hospital	1,000 SFGFA	20.45	$8,564
620	Nursing Home	1,000 SFGFA	12.12	$5,075
710	General Office Building	1,000 SFGFA	14.08	$5,897
720	Medical-Dental Office Building	1,000 SFGFA	45.88	$19,218
731	State Motor Vehicles Department	1,000 SFGFA	203.11	$85,082
732	United States Post Office	1,000 SFGFA	148.43	$62,175
750	Office Park	1,000 SFGFA	14.28	$5,982
760	Research and Development Center	1,000 SFGFA	10.45	$4,379
770	Business Park	1,000 SFGFA	15.85	$6,640
812	Building Materials and Lumber Store	1,000 SFGFA	72.46	$30,351
813	Free-Standing Discount Superstore	1,000 SFGFA	64.62	$27,067
814	Variety Store	1,000 SFGFA	51.36	$21,516
815	Free-Standing Discount Store	1,000 SFGFA	47.40	$19,856
816	Hardware/Paint Store	1,000 SFGFA	43.53	$18,236
817	Nursery (Garden Center)	1,000 SFGFA	139.20	$58,311
820	Shopping Center	1,000 SFGLA	34.74	$14,553
826	Specialty Retail Center	1,000 SFGLA	68.18	$28,559
841	Automobile Sales	1,000 SFGFA	49.17	$20,595
843	Automobile Parts Sales	1,000 SFGFA	45.76	$19,170
848	Tire Store	1,000 SFGFA	28.69	$12,018
850	Supermarket	1,000 SFGFA	79.54	$33,317
851	Convenience Market (Open 24 Hours)	1,000 SFGFA	414.63	$173,686
857	Discount Club	1,000 SFGFA	71.14	$29,800
862	Home Improvement Superstore	1,000 SFGFA	28.11	$11,776
880	Pharmacy/Drugstore without Drive-Through	1,000 SFGFA	64.05	$26,830
881	Pharmacy/Drugstore with Drive-Through	1,000 SFGFA	61.87	$25,916
890	Furniture Store	1,000 SFGFA	3.07	$1,286
911	Walk-in Bank	1,000 SFGFA	0.00	$0
912	Drive-in Bank	1,000 SFGFA	56.35	$23,604
925	Drinking Place	1,000 SFGFA	0.00	$0
931	Quality Restaurant	1,000 SFGFA	62.86	$26,331
932	High-Turnover (Sit-Down) Restaurant	1,000 SFGFA	88.34	$37,003
933	Fast-Food Restaurant without Drive-Through	1,000 SFGFA	455.63	$190,860
934	Fast-Food Restaurant with Drive-Through	1,000 SFGFA	368.04	$154,170
937	Coffee/Donut Shop with Drive-Through	1,000 SFGFA	563.07	$235,867
938	Coffee/Donut Kiosk	1,000 SFGFA	514.08	$215,344
944	Gasoline/Service Station	VFP	99.11	$41,518
945	Gasoline/Service Station with Convenience	VFP	34.94	$14,638
946	Gasoline/Service Station with Car Wash	VFP	61.34	$25,695

Source: ITE Handbook 9th Edition, and the National Household Travel Survey.

Abbreviations

CFD commercial flights per day
ODU occupied dwelling unit
SFGFA square feet of gross floor area
SFGLA square feet of gross leasable area
VFP vehicle fueling position

Section V. PARKS

This section provides detailed calculations of the recommended SDC for parks facilities.

V.A. GROWTH

For parks SDCs, the most applicable and administratively feasible unit of growth is the resident. Because the City charges parks SDCs to non-residential development—and because such charges are based on an estimated number of employees—the unit of growth must accommodate employees. We therefore use the residential equivalent, where each employee is counted as 0.40 resident.

The parks and open space master plan provided a demand growth forecast for the utility through the end of the planning period in 2016. Although the planning period has now passed, the forecasted growth is still relevant because it still represents the growth to be served by the projects in the project list. As shown in **Table 16**, total growth during the planning period was projected to be 792 residential equivalents.

Table 16. Parks Customer Growth

	2005	2016	2005 - 2016 Growth	Growth Share	CAGR
Population	1,136	1,753	617		4.02%
Employees	*3,061*	*3,493*	*432*		
Employee RPEs[1]	1,236	1,411	175		1.21%
Residential Equivalents	**2,373**	**3,164**	**792**	25.02%	2.65%

Source: Parks and Open Space Master Plan and Census On the Map.
1 Residential Population Equivalents (RPEs) equal to .40 people per job.
Abbreviations: CAGR - Compound Annual Growth Rate

V.B. ELIGIBLE COSTS

Below we calculate the eligible cost bases for the SDC including any applicable adjustments.

V.B.1. Reimbursement Fee Cost Basis

Assuming completion of the planned projects and the materialization of expected growth, the City parks system will have a future level of service of 30.20 acres per 1,000 residents for facilities measured in acres and 8,213.48 linear feet per 1,000 residents for facilities measured in linear feet. At present (i.e., prior to project completion and prior to expected growth), the City's park facilities do not meet this level of service. Therefore, there is no "unused" reimbursable capacity in the parks system.

V.B.2. Improvement Fee Cost Basis

The improvement fee cost basis is based on a specific list of planned capacity-increasing capital improvements. The portion of each project that can be included in the improvement fee cost basis is

determined by the extent to which each new project creates capacity for future users. **Table 17** shows how a total project cost of $3,487,000 reduces to an eligible cost of $1,738,141.

Table 17. Parks Improvement Fee Cost Basis

Project Number	Project	Park Type	Costs Borne by City	Percent Eligible for Improvement Fee	Improvement Fee Eligible Costs
CIP 1	Park Restroom Updates		$15,000	0.00%	$0
CIP 2	Unidentified Park Project (Park Masterplan)		60,000	0.00%	0
CIP 3	Coburg Loop Segment 4	Linear	35,000	68.71%	24,049
MP 1	Southside Neighborhood Park	Neighborhood	332,500	68.71%	228,461
MP 2	Northside Neighborhood Park	Neighborhood	332,500	68.71%	228,461
MP 3	Community Park	Community	855,000	68.71%	587,471
MP 4	Mill Slough Linear Park	Linear Feet	127,000	35.20%	44,698
MP 5	Muddy Creek Linear Park	Linear Feet	1,155,000	35.20%	406,504
MP 6	Westside Mini Park	Mini	94,000	68.71%	64,587
MP 7	Wetland Park	Natural Area	150,000	0.00%	0
MP 8	Pfeiffer Park	Neighborhood	70,000	0.00%	0
MP 9	Moody Park	Mini	21,000	0.00%	0
MP 10	Coburg Estates Linear Park	Linear	2,000	0.00%	0
MP 11	Pavillion Park	Mini	14,000	0.00%	0
MP 12	Southwest Mini Park	Mini	124,500	68.71%	85,544
MP 13	Future Employee Mini Park	Mini	99,500	68.71%	68,367
	Total		$3,487,000		$1,738,141

Source: Parks and Open Space Master Plan and Coburg CIP.

The improvement fee cost basis must be reduced by any improvement fee revenue (for the same facility type) currently held by the City. The City currently has a balance of $80,846 in parks improvement fees. Reducing the gross improvement fee cost basis of $1,738,141 by this amount results in a net improvement fee cost basis of cost of $1,657,296.

V.B.3. Compliance Costs

As noted in **Section I**, compliance costs are the sum of SDC methodology updates and annual administrative costs. In consultation with City staff, we estimate compliance costs at five percent of the combined reimbursement and improvement cost bases.

V.C. CALCULATED SDC

Dividing the sum of the net cost bases by the projected growth results in the calculated SDC per residential equivalent, as shown in **Table 18**:

Table 18. Parks SDC per Residential Equivalent

Parks SDC		Total	SDC-Eligible	Units
Reimbursement Fee				
Excess Capacity of Infrastructure		$ 250,966	$ -	
Less: Pro-Rated Debt Principal		(45,622)	-	
Reimbursement Fee Cost Basis		$ 205,344	$ -	
Growth to End of Planning Period			792	RPE
Reimbursement Fee			**$ -**	per RPE
Improvement Fee				
Capacity Expanding CIP		$ 3,487,000	$ 1,738,141	
Less: Fund Balance		(80,846)	(80,846)	
Improvement Fee Cost Basis		$ 3,406,154	$ 1,657,296	
Growth to End of Planning Period			792	RPE
Improvement Fee			**$ 2,094**	per RPE
Total System Development Charge				
Reimbursement Fee			**$ -**	per RPE
Improvement Fee			**$ 2,094**	per RPE
Compliance Fee	5%		**$ 105**	per RPE
Total SDC per			**$ 2,198**	per RPE

V.D. SCHEDULE OF SDCS

In order to impose parks SDCs on an individual property, the number of residential equivalents must be estimated for individual housing types and non-residential land uses, as shown in **Table 19**.

Table 19. Parks SDC Schedule

	People per Unit	SDC - Special Realized LOS
Residential	2.67	$5,875
Multi-Family	2.57	$5,659
Accessory Dwelling Unit	1.45	$3,188
Non-Residential Charge	**RPEs per 1,000 SF**	
Ag., Fish and Forest Services; Constr; Mining	0.68	$1,505
Food and Kindred Products	0.64	$1,410
Textile and Apparel	0.43	$955
Lumber and Wood	0.63	$1,388
Furniture; Clay, Stone & Glass; Misc.	0.53	$1,169
Paper and Allied	0.25	$555
Printing, Publishing and Allied	0.90	$1,974
Chemicals, Petroleum, Rubber, Leather	0.56	$1,234
Primary and Fabricated Metals	0.96	$2,115
Machinery Equipment	1.35	$2,960
Electrical Machinery, Equipment	1.01	$2,220
Transportation Equipment	0.58	$1,269
TCPU - Transportation and Warehousing	0.12	$270
TCPU - Communications and Public Utilities	0.88	$1,931
Wholesale Trade	0.29	$639
Retail Trade	0.86	$1,890
Finance, Insurance and Real Estate	1.09	$2,400
Non-Health Services	0.52	$1,153
Health Services	1.15	$2,537
Educational, Social, Membership Services	0.55	$1,200
Government	0.76	$1,676

Source: US Census (American Community Survey 2011-2015) and the Department of Environmental Quality.

Section VI. Conclusion

VI.A. Recommended SDCs

Table 20 summarizes the recommended SDCs for a single family residence and compares them to existing SDCs.

Table 20. SDC Summary and Comparison

	Water	Transportation	Park	Wastewater	Total
Current - without Credits	$4,696	$1,054	$3,323	$14,982	**$24,055**
Current - with Credits	$3,300	$1,054	$3,323	$5,907	**$13,584**
Proposed	$5,936	$6,648	$5,875	$6,750	**$25,209**

VI.B. Credits, Exemptions, and Waivers

The City will continue to establish local policies for issuing credits, exemptions, and other administrative procedures.

VI.B.1. Credits

A credit is a reduction in the amount of the SDC for a specific development. ORS 223.304 requires that SDC credits be issued for the construction of a qualified public improvement which is: required as a condition of development approval; identified in the City's adopted SDC project list; and either "not located on or contiguous to property that is the subject of development approval," or located "on or contiguous to such property and is required to be built larger or with greater capacity than is necessary for the particular development project . . ."

Additionally, a credit must be granted "only for the cost of that portion of an improvement which exceeds the minimum standard facility size or capacity needed to serve" the particular project up to the amount of the improvement fee. For multi-phase projects, any "excess credit may be applied against SDCs that accrue in subsequent phases of the original development project."

VI.B.2. Exemptions and Waivers

The City may exempt or waive specific classifications of development from the requirement to pay transportation SDCs. However, to do so it must have a cost or demand-based justification. The City may not arbitrarily exempt customers or customer types from SDCs.

VI.C. Indexing

Oregon law (ORS 223.304) also allows for the periodic indexing of SDCs 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 index its charges to the *Engineering News Record* Construction Cost Index for the City of Seattle and adjust its charges annually. There is no comparable Oregon-specific index.