CITY OF SWEET HOME
CITY COUNCIL
AGENDA

February 09, 2021, 5:30 PM
Sweet Home City Hall, 3225 Main Street
Sweet Home, OR 97386

WIFI Passcode: guestwifi

PLEASE silence all cell phones – Anyone who wishes to speak, please sign in.

Mission Statement

The City of Sweet Home will work to build an economically strong community with an efficient and effective local government that will provide infrastructure and essential services to the citizens we serve. As efficient stewards of the valuable assets available, we will be responsive to the community while planning and preparing for the future.

Meeting Information

The City Council will hold a Special City Council meeting at 5:30 p.m. in the City Council Chambers at City Hall, 3225 Main Street. In order to protect residents, staff, and elected officials due to the novel COVID-19 virus, the frequency and length of public meetings, including the City Council, boards and commissions, will be minimized. Non-urgent and non-essential City business with expected public feedback will be postponed whenever possible. Individuals attending public meetings in person will be limited to the first six people, required to maintain appropriate social distancing, (6-ft.) and be free of symptoms related to COVID-19. The City of Sweet Home City Council is streaming the meeting via the Microsoft Teams platform and asks the public to consider this option. There will be opportunity for public input via the live stream. To view the City Council meeting live, online visit **live.sweethomeor.gov**. If you don't have access to the internet you can call in to 541-367-5128 and you'll be asked to choose option #1 to be logged in to the call. Conference ID: 629 947 780#

This video stream and call in options are allowed under Council Rules, meet the requirements for Oregon public meeting law, and has been approved by the Mayor as Chairperson of the meeting. All votes will be conducted by Roll Call Vote.

Call to Order

Roll Call

New Business:

a) Public Hearing to Consider Modifications and Adoption of a Methodology for Calculating System Development Charges

Adjournment

The location of the meeting is accessible to the disabled. If you have a disability that requires accommodation, advanced notice is requested by notifying the City Manager's Office at 541-367-8969.

DRAFT Methodology Report

Wastewater, Water, Transportation, Stormwater and Park System Development Charges

Prepared for CITY OF SWEET HOME | December 9, 2020

murraysmith

GALARDI ROTHSTEIN GROUP

Table of Contents

SECTION 1 INTRODUCTION 1-1
SDC Legislation in Oregon 1-1
SDC Structure 1-1
Credits 1-2
Update and Review 1-2
Other Provisions 1-2

SECTION 2 WASTEWATER SDC METHODOLOGY 2-4
Determine Capacity Needs 2-4
Capacity Analysis 2-5
Develop Cost Basis 2-5
Reimbursement Fee 2-5
Improvement Fee 2-6
Develop Unit Costs 2-7
Compliance Costs 2-7
SDC Schedule 2-8
Inflationary Adjustments 2-9

SECTION 3 WATER SDC METHODOLOGY 3-1
Determine Capacity Needs 3-1
Available Capacity 3-2
Develop Cost Basis 3-2
Reimbursement Fee 3-2
Improvement Fee 3-3
Develop Unit Costs 3-4
Compliance Costs 3-4
SDC Schedule 3-4
Inflationary Adjustments 3-5

SECTION 4 TRANSPORTATION SDC METHODOLOGY 4-1
Determine Capacity Needs 4-1
Develop Cost Basis 4-1
Improvement Fee Cost Basis 4-1
Develop Unit Costs 4-4
Compliance Charge 4-4
SDC Schedule 4-4
Trip Generation Rates 4-8
Trip Rate Adjustments 4-8
Inflationary Adjustments 4-8

SECTION 5 STORMWATER SDC METHODOLOGY 5-1
Determine Capacity Needs 5-1
Develop Cost Basis 5-2
Reimbursement Fee 5-2
Improvement Fee 5-2
Develop Unit Costs 5-4
Compliance Costs 5-4
SDC Schedule 5-4
Inflationary Adjustments 5-5

SECTION 6 PARK SDC METHODOLOGY 6-1
Determine Capacity Needs 6-1
Develop Cost Basis 6-2

Reimbursement Fee 6-2
Improvement Fee 6-2
Develop Unit Costs 6-5
Compliance Costs 6-5
SDC Schedule 6-6
Inflationary Adjustments 6-7

APPENDIX A – TRIP GENERATION ANALYSIS 1

APPENDIX B – PARKS RESIDENTIAL EQUIVALENCY 1

Tables

2-1 WASTEWATER SYSTEM PLANNING ASSUMPTIONS 2-4
2-2 WASTEWATER SYSTEM CAPACITY EXPANSION ANALYSIS1 2-5
2-3 WASTEWATER REIMBURSEMENT FEE COST BASIS 2-6
2-4 WASTEWATER SDC IMPROVEMENT FEE COST BASIS AND PROJECT LIST 2-7
2-5 WASTEWATER UNIT COST CALCULATION 2-7
2-6 WASTEWATER COMPLIANCE CHARGE 2-8
2-7 WASTEWATER SDC SCHEDULE 2-8
3-1 WATER SYSTEM PLANNING ASSUMPTIONS 3-1
3-2 WATER SYSTEM CAPACITY ANALYSIS1 3-2
3-3 WATER REIMBURSEMENT FEE COST BASIS 3-3
3-4 WATER SDC IMPROVEMENT FEE COST BASIS (PROJECT LIST) 3-3
3-5 WATER UNIT COST CALCULATION 3-4
3-6 WATER COMPLIANCE CHARGE 3-4
3-7 WATER SDC SCHEDULE 3-5
4-1 ESTIMATED VEHICLE TRIP GENERATION (AVERAGE DAILY TRIPS)1 4-1
4-2 TRANSPORTATION SDC IMPROVEMENT FEE COST BASIS AND PROJECT LIST (1000'S) 4-2
4-3 EXISTING AND FUTURE BIKE AND PEDESTRIAN FACILITIES 1 4-3
4-4 EXISTING AND FUTURE LEVEL OF SERVICE 4-3
4-5 TRANSPORTATION SDC UNIT COST CALCULATION 4-4
4-6 TRANSPORTATION COMPLIANCE CHARGE 4-4
4-7 TRANSPORTATION SDC SCHEDULE1 4-5
5-1 STORMWATER SYSTEM PLANNING ASSUMPTIONS 5-1
5-2 STORMWATER REIMBURSEMENT FEE COST BASIS 5-2
5-3 STORMWATER SDC IMPROVEMENT FEE COST BASIS (PROJECT LIST) 5-3
5-4 STORMWATER UNIT COST CALCULATION 5-4
5-5 STORMWATER COMPLIANCE CHARGE 5-4
5-6 STORMWATER SDC SCHEDULE 5-5
6-1 PARK SDC POPULATION AND EMPLOYMENT DATA 6-1
6-2 PARK SDC EQUIVALENT POPULATION ALLOCATION 6-2
6-3 PARK REIMBURSEMENT FEE COST BASIS 6-2
6-4 PARK SDC IMPROVEMENT FEE COST BASIS (PROJECT LIST) 6-3
6-5 PARK SDC UNIT COST CALCULATION 6-5
6-6 PARK COMPLIANCE CHARGE 6-6
6-7 PARKS SDC SCHEDULE 6-6

Section 1

Introduction

Oregon legislation establishes guidelines for the calculation of system development charges (SDCs). Within these guidelines, local governments have latitude in selecting technical approaches and establishing policies related to the development and administration of SDCs. A discussion of this legislation follows.

In conformance with state law and industry standard practices, the recommended SDC methodologies for the City of Sweet Home's wastewater, water, transportation, stormwater, and park SDCs for are presented in subsequent sections of this report.

SDC Legislation in Oregon

In the 1989 Oregon state legislative session, a bill was passed that created a uniform framework for the imposition of SDCs statewide. This legislation (Oregon Revised Statute [ORS] 223.297-223.314), which became effective on July 1, 1991, (with subsequent amendments), authorizes local governments to assess SDCs for the following types of capital improvements:

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

The legislation provides guidelines on the calculation and modification of SDCs, accounting requirements to track SDC revenues and expenditures, and the adoption of administrative review procedures.

SDC Structure

SDCs can be developed around two concepts: (1) a reimbursement fee, and (2) an improvement fee, or a combination of the two. The **reimbursement fee** is based on the costs of capital improvements *already constructed or under construction*. The legislation requires the reimbursement fee to be established or modified by an ordinance or resolution setting forth the methodology used to calculate the charge. This methodology must consider the cost of existing facilities, prior contributions by existing users, gifts or grants from federal or state government or private persons, the value of unused capacity available for future system users, rate-making principles employed to finance the capital improvements, and other relevant factors. The objective of the methodology must be that future system users contribute no more than an equitable share of the capital costs of *existing* facilities. Use of reimbursement fee revenues are restricted only to capital expenditures for the specific system which they are assessed, including debt service.

The methodology for establishing or modifying an **improvement fee** must be specified in an ordinance or resolution that demonstrates consideration of the *projected costs of capital improvements identified in an adopted plan and list*, that are needed to increase capacity in the system to meet the demands of new or expanded development. Use of revenues generated through improvement fees are dedicated to capacity-increasing capital improvements or the repayment of debt on such improvements. An increase in capacity is established if an improvement increases the level of service provided by existing facilities or provides new facilities.

In many systems, growth needs will be met through a combination of existing available capacity and future capacity-enhancing improvements. Therefore, the law provides for a **combined fee** (reimbursement plus improvement component).

Credits

The legislation requires that a credit be provided against the improvement fee for the construction of "qualified public improvements" by a developer or other private party. Qualified public improvements are improvements that are required as a condition of development approval, identified in the system's capital improvement program, and either (1) not located on or contiguous to the property being developed, or (2) located in whole or in part, on or contiguous to, property that is the subject of development approval and required to be built larger or with greater capacity than is necessary for the particular development project to which the improvement fee is related.

Update and Review

The methodology for establishing or modifying improvement or reimbursement fees shall be available for public inspection. The local government must maintain a list of persons who have made a written request for notification prior to the adoption or amendment of such fees. The legislation includes provisions regarding notification of hearings and filing for reviews. "Periodic application of an adopted specific cost index or… modification to any of the factors related to the rate that are incorporated in the established methodology" are not considered "modifications" to the SDC methodology. As such, the local government is not required to adhere to the notification provisions under these circumstances. The criteria for making adjustments to the SDC rate, which do not constitute a change in the methodology, are further defined as follows:

- "Factors related to the rate" are limited to changes to costs in materials, labor, or real property as applied to projects in the required project list.
- The cost index must consider average change in costs in materials, labor, or real property and must be an index published for purposes other than SDC rate setting.

The notification requirements for changes to the fees that *do* represent a modification to the methodology are 90-day written notice prior to first public hearing, with the SDC methodology available for review 60 days prior to public hearing.

Other Provisions

Other provisions of the legislation require:

- Preparation of a capital improvement program or comparable plan (prior to the establishment of an SDC), that includes a list of the improvements that the jurisdiction intends to fund in whole or in part with SDC revenues and the estimated timing, cost, and eligible portion of each improvement.
- Deposit of SDC revenues into dedicated accounts and annual accounting of revenues and expenditures, including a list of the amount spent on each project funded, in whole or in part, by SDC revenues.
- Creation of an administrative appeals procedure, in accordance with the legislation, whereby a citizen or other interested party may challenge an expenditure of SDC revenues.

The methodology presented in the following sections has been prepared in accordance with Oregon SDC requirements.

Note: The calculations contained in this report were produced using numbers that extend beyond the decimal places shown in the tables presented, so slight variations exist due to rounding. These variations are not material.

Section 2

Wastewater SDC Methodology

The general methodology used to calculate wastewater SDCs begins with an analysis of system planning and design criteria to determine growth's capacity needs, and how those needs will be met through existing system available capacity and capacity expansion. Then, the capacity to serve growth is valued to determine the "cost basis" for the SDCs, which is then divided by the total growth capacity units to determine the system-wide unit costs of capacity. The final step is to determine the SDC schedule, which identifies how different users of the system will be charged, based on their estimated capacity requirements.

Determine Capacity Needs

The primary relevant design criteria for the wastewater system include the following:

- **Average Annual Flow (AAF)**: the average flow at the Wastewater Treatment Plant (WWTP) during the year.
- **Peak Flow (PF)**: peak flow includes base wastewater flow, groundwater infiltration, and rainfall derived infiltration and inflow. Peak flow is used to evaluate the capacity needs of most unit processes at the WWTP.

Table 2-1 summarizes flows under existing and future conditions. The difference between the future and existing flow is the projected growth over the planning period. Table 2-1 also shows projected growth in population and equivalent meters. Equivalent meters are the number of water meters of different sizes stated in terms of the hydraulic equivalency of a standard residential customer.

Table 2-1
City of Sweet Home Wastewater SDC Analysis
Wastewater System Planning Assumptions

	Existing	Future	Growth Amount	%
Population[1]	9,340	12,259	2,919	24%
Meter Equivalents	4,268	5,602	1,334	24%
WWTP Flow (mgd)[2]				
Avg. Annual Flow (AAF)	4.09	4.63	0.54	12%
Peak Flow (PF)	9.45	12.4	2.95	24%

[1]Current PSU Certified estimate July 1, 2019; future based on Wastewater Facility Plan

[2]Murraysmith estimates based on DMR data between 2010 and May 2018

Capacity Analysis

The existing WWTP is generally operating at or above its current regulatory capacity; therefore, the needs of growth will be met primarily through future WWTP expansion. Expansion will come in the form of both incremental facility additions (e.g., additional clarifiers) and some full process replacement (e.g., new headworks and disinfection system).

Table 2-2 provides a summary of the planned capacity expansion by treatment function and the portion needed to address existing capacity needs as well as future growth. Improvements that include full process replacement have a lower percent attributable to growth due to the need to replace capacity for existing development.

Table 2-2

City of Sweet Home Wastewater SDC Analysis

Wastewater System Capacity Expansion Analysis[1]

	Design Basis	Planned Expansion	Existing Requirements	Growth	
				Amount	%
Influent pump station	PF	6.40	3.45	2.95	46%
Headworks	PF	12.40	9.45	2.95	24%
Aeration Basin	PF	5.40	2.45	2.95	55%
Secondary Clarifiers	PF	5.10	2.15	2.95	58%
Tertiary	PF	8.40	6.40	2.00	24%
Disinfection	PF	12.40	9.45	2.95	24%
General	PF	12.40	9.45	2.95	24%

[1]Murraysmith based on Table 2-1 and Wastewater Facilities Plan information.

Develop Cost Basis

The value of capacity needed to serve growth in aggregate within the planning period, is referred to as the "cost basis."

Reimbursement Fee

The reimbursement fee is based on the costs of capital improvements already constructed or under construction. In developing the cost basis, the methodology must consider the cost of existing facilities, prior contributions by existing users, gifts or grants from federal or state government or private persons, the value of unused capacity available for future system users, and other relevant factors.

As discussed previously and shown in **Table 2-3** (next page), there is little available capacity in existing WWTP facilities. A small amount (12 percent) of capacity is available for growth in existing aerobic digestors and support facilities (generator building).

As shown in Table 2-3, the reimbursement cost basis is $144,239.

Table 2-3
City of Sweet Home Wastewater SDC Analysis
Wastewater Reimbursement Fee Cost Basis

Description	Cash Value	Growth Share %	Growth Share $
Treatment			
Sludge Handling Building	$366,390	0%	$0
IPS	$422,070	0%	$0
RAS/WAS Building and Pumps	$346,660	0%	$0
Aerobic Digester	$927,950	12%	$108,227
Secondary Treatment	$2,171,480	0%	$0
Aeration	$1,099,560	0%	$0
Tertiary Filters	$997,630	0%	$0
Chlorine Contact Tank	$468,330	0%	$0
Process Piping	$749,730	0%	$0
Lime Silo	$281,000		
Subtotal	$7,830,800		$108,227
Other			
Generator Building	$308,770	12%	$36,012
Admin/control building	$478,380	0%	$0
Backwash/storage	$246,290	0%	$0
Bio Filter	$169,100	0%	$0
Waste Backwash Storage	$145,390	0%	$0
Subtotal	$1,347,930		$36,012
Total	**$9,178,730**		**$144,239**

Source: Appraisal Report November 30, 2019

Improvement Fee

The cost of future capacity-increasing improvements (the improvement fee cost basis) is presented in **Table 2-4** (next page). Each improvement was reviewed to determine the portion of costs that expand capacity for growth versus remedy an existing deficiency or replacement existing capacity. The total improvement costs for growth are approximately $7.4 million.

Table 2-4
City of Sweet Home Wastewater SDC Analysis
Wastewater SDC Improvement Fee Cost Basis and Project List

Project Description	Time Period	Total Project Cost	SDC-Eligible %	SDC-Eligible $
Treatment				
Solids				
Sludge handling building	2024	$889,380	12%	$103,729
RAS/WAS building	2024	$2,320,440	12%	$270,634
Aerobic Digester (new secondary digester)	2024	$775,920	12%	$90,496
NEW Sludge Thickening	2024	$808,860	12%	$94,338
NEW Dewatering equipment	2024	$1,194,990	12%	$139,372
NEW Anaerobic Digester	2024	$1,152,900	12%	$134,463
NEW Dewatered Sludge Storage Building	2024	$4,311,480	12%	$502,851
Liquids	2024			
Influent Pump Station	2024	$1,866,600	46%	$861,137
NEW Headworks	2024	$2,658,990	24%	$633,134
NEW Primary Clarifier	2024	$1,571,970	46%	$725,212
NEW Secondary Clarifier #4	2024	$2,206,980	58%	$1,277,700
Aeration Basin	2024	$3,435,585	55%	$1,878,485
NEW Tertiary Filters	2024	$1,626,870	24%	$387,375
NEW UV System (replacing chlorine disinfection)	2024	$1,169,370	24%	$278,440
NEW Utility Water	2024	$296,460	24%	$70,590
Total		**$26,286,795**	**28%**	**$7,447,957**

Develop Unit Costs

System-wide unit costs of capacity are determined by dividing the reimbursement fee and improvement fee cost bases by the aggregate growth in equivalent meters from Table 2-1, as shown in **Table 2-5**.

Table 2-5
City of Sweet Home Wastewater SDC Analysis
Wastewater Unit Cost Calculation

Item	Improvement	Reimbursement
Cost Basis	$7,447,957	$144,239
Growth Equivalent Meters	1,334	1,334
Cost per Unit	**$5,584**	**$108**

Compliance Costs

Local governments are entitled to expend SDC revenue on the costs of complying with the SDC statutes. Compliance costs generally include costs associated with developing the SDC methodology and project list (i.e., a portion of master planning costs), as well as annual accounting costs.

Table 2-6 shows the calculation of the compliance charge per equivalent meter. SDC study and accounting costs are 100 percent related to new growth, and master planning costs are allocated in proportion to the growth share of future meter equivalents (24 percent). Growth costs are annualized by dividing the estimated cost for each item by the estimated number of years before update. (5 years for SDC study, 10 years master planning, and 1 year for auditing/accounting). The total annual costs are then divided by the estimated annual number of new equivalent meters which yields a fee of approximately $66 per equivalent meter.

Table 2-6
City of Sweet Home Wastewater SDC Analysis
Wastewater Compliance Charge

Component	Years	Total	Growth	Annualized
SDC Study	5	$5,000	100%	$1,000
Master Planning	10	$100,000	24%	$2,381
Auditing/Accounting	1	$1,000	100%	$1,000
Total Annual Costs		$106,000		$4,381
Estimated Annual EDUs				67
Compliance Charge/EDU				**$66**

SDC Schedule

The combined SDCs per EDU are show in **Table 2-7.** The total SDC per EDU is $5,758, including the reimbursement and improvement fees ($108 and $5,584, respectively) and the compliance charge of $66. The SDCs for larger meter sizes are scaled up based on hydraulic equivalencies relative to a 5/8-inch meter (the typical size for a single-family residential dwelling.

Table 2-7
City of Sweet Home Wastewater SDC Analysis
Wastewater SDC Schedule

Meter Size	SDCr	SDCi	Compliance	Total	Meter Equivalency[1]
5/8 X 3/4"	$108	$5,584	$66	$5,758	1
1"	$270	$13,959	$164	$14,394	2.5
1 1/2"	$541	$27,919	$328	$28,788	5
2"	$865	$44,670	$526	$46,061	8
3"	$1,730	$89,340	$1,051	$92,121	16
4"	$2,703	$139,594	$1,642	$143,939	25
6"	$5,407	$279,187	$3,285	$287,879	50
8"	$8,651	$446,700	$5,255	$460,606	80

[1]Equivalencies reflect the hydraulic capacity of each meter size relative to a 5/8" X ¾" meter (the smallest meter size used to serve residential customers). The City's current standard meter size is ¾"; however, residential water use is not materially different between 5/8" X ¾" and ¾" meters.

Inflationary Adjustments

In accordance with Oregon statutes, the SDCs will be adjusted annually based on a standard inflationary index. Specifically, the City plans to use the Engineering News Record (ENR) Seattle Construction Cost Index (CCI) as the basis for adjusting the SDCs annually.

Section 3

Water SDC Methodology

This section presents the updated water system development charge (SDC) methodology, and calculations. The general methodology begins with an analysis of system planning and design criteria to determine growth's capacity needs, and how those needs will be met through existing system available capacity and capacity expansion. Then, the existing and future facilities needed to serve growth over the planning period are valued to determine the "cost basis" for the SDCs. The cost basis is then spread over the total growth capacity to determine the system wide unit costs of capacity. The final step is to determine the SDC schedule, which identifies how different developments will be charged, based on their estimated capacity requirements.

Determine Capacity Needs

Table 3-1 shows the relevant planning assumptions for the water system. Capacity requirements are generally evaluated based on the following system design criteria:

- **Average Day Demand (ADD) –** Total annual water volume used system-wide divided by 365 days per year.
- **Maximum Day Demand (MDD) --** The highest daily recorded rate of water production in a year. Used for allocating source, pumping and delivery facilities.
- **Storage Requirements –** Stored water capacity used for operational (or equalization) and emergency and fire protection needs. Used for allocating storage facility costs.

Table 3-1
City of Sweet Home Water SDC Analysis
Water System Planning Assumptions

	Existing	Future	Growth Amount	%
Population[1]	9,340	12,259	2,919	24%
Meter Equivalents[2]	4,268	5,602	1,334	24%
Average Day Demand (mgd)[3]	1.1	1.5	0.34	24%
Max Day Demand (mgd)[3]	3.0	3.9	0.9	24%
Storage	3.7	4.6	0.9	21%

[1]Current PSU certified population estimate July 1, 2019; future based on Wastewater Facility Plan.
[2]The number of meters of various sizes stated in terms of the relative hydraulic capacity of a 5/8" X ¾" meter (the smallest meter size used to serve residential customers).
[3]From Water System Master Plan

As shown in Table 3-1, system ADD is currently about 1.1 million gallons per day (mgd), and MDD is about 3.0 mgd. Future ADD and MDD are projected to be about 1.5 mgd and 3.9 mgd, respectively over the 20-year period. Storage requirements are currently 3.7 million gallons (mg) and are projected to increase to 4.6 mg over the planning period.

Available Capacity

The capacity needs of growth will be met primarily by existing system available capacity, with some limited future capacity expansion. **Table 3-2** provides a summary of the existing capacities by major function and compares the capacity to existing demands to determine the portion of available capacity by component and facility type.

Table 3-2
City of Sweet Home Water SDC Methodology
Water System Capacity Analysis[1]

	Existing		Future	Growth	
	Capacity	Requirements	Capacity	Amount	%
Supply	6.00	3.03		2.97	50%
Storage - Existing	4.31	3.66		0.65	15%
Future Reservoir			0.75	0.29	39%

[1]Water System Master Plan

Develop Cost Basis

The value of capacity needed to serve growth in aggregate within the planning period is referred to as the "cost basis".

Reimbursement Fee

Table 3-3 (next page) shows the reimbursement fee cost basis calculations based on the available capacity assumptions presented in Table 3-2

As show in Table 3-3, the total reimbursement fee cost basis is almost $3.9 million.

Table 3-3
Water System Development Charge Analysis
Water Reimbursement Fee Cost Basis

Description	Cash Value[1]	Growth Share %	Growth Share $
Supply & Treatment			
Water Treatment Plant	$7,659,900	50%	$3,796,552
Backwash Basin	$2,245,500	50%	$1,112,959
Intake Screen	$2,102,320	50%	$1,041,994
Influent (RW) Pump Station	$572,400	50%	$283,704
Process Piping	$1,187,100	50%	$588,374
Subtotal	$13,767,220		$6,823,584
Storage			
Reservoir 1[2]	$768,900	0%	$0
Reservoir 2	$447,000	15%	$67,811
Reservoir 3	$1,253,120	15%	$190,102
Reservoir 4: 49th Avenue Reservoir	$1,886,250	15%	$286,150
Reservoir 5: Nandina Street Reservoir	$195,160	15%	$29,606
Subtotal	$4,550,430		$573,669
Total	**$18,317,650**		**$7,397,253**

[1]Source: Appraisal Report November 30, 2019
[2]Will be taken out of service.

Improvement Fee

Table 3-4 shows the improvement fee cost basis. The future capacity-increasing improvements are based on projects identified in the Master Plan and the City's Capital Improvement Plan. Each improvement was reviewed to determine the portion of costs that expand capacity for growth, versus replacing existing capacity or providing a higher level of service for existing customers. As shown in Table 3-4, the improvement fee cost basis is almost $2.3 million.

Table 3-4
City of Sweet Home Water SDC Analysis
Water SDC Improvement Fee Cost Basis (Project List)

Project Description	Time Period	Project Cost	SDC-Eligible %	SDC-Eligible $
Storage				
Additional reservoir at WTP (0.75 mg)[1]	2024 & 2025	$2,800,000	39%	$1,078,936
Distribution				
Northern Transmission Main (Phase 1)	+5 years	$780,000	100%	$780,000
Northern Transmission Main (Phase 2)	+5 years	$1,650,000	24%	$391,959
Total		**$5,230,000**	**43%**	**$2,250,895**

[1]Project costs include distribution modeling and reservoir design

Develop Unit Costs

The unit costs of capacity are determined by dividing the respective cost bases by the MDD growth requirements presented in Table 3-1. The system-wide unit costs are then multiplied by the capacity requirements per equivalent dwelling unit (EDU) to yield the SDCs per EDU. Based on the City's existing MDD and number of equivalent meters shown in Table 3-1, the capacity requirements per EDU are estimated to be 709 gallons per day (0.000709 mgd).

As showing in **Table 3-5,** reimbursement and improvement costs per EDU are $5,563 and $1,693, respectively, for a total of $7,256.

Table 3-5
City of Sweet Home Water SDC Analysis
Water Unit Cost Calculation

Item	Improvement	Reimbursement
Cost Basis	$2,250,895	$7,397,253
Growth (mgd)	0.94	0.94
Cost per mgd)	$2,387,356	$7,845,712
Capacity Requirements per Unit	0.000709	0.000709
Cost per Unit	**$1,693**	**$5,563**

Compliance Costs

Local governments are entitled to include in the SDCs, a charge to recover costs associated with complying with the SDC statutes. Compliance costs include costs related to developing the SDC methodology and project list (i.e., a portion of master planning costs), and annual accounting. As shown in **Table 3-6**, the estimated compliance cost per EDU is $66.

Table 3-6
City of Sweet Home Water SDC Analysis
Water Compliance Charge

Component	Years	Total	Growth	Annualized
SDC Study	5	$5,000	100%	$1,000
Master Planning	10	$100,000	24%	$2,376
Auditing/Accounting	1	$1,000	100	$1,000
Total Annual Costs		$106,000		$4,376
Estimated Annual EDUs				66
Compliance Charge/EDU				**$66**

SDC Schedule

The combined SDCs per EDU are show in **Table 3-7.** The total SDC per EDU is $7,321. The SDCs for larger meter sizes are scaled up based on hydraulic equivalencies relative to a 5/8-inch meter (the smallest size for a single-family residential dwelling).

Table 3-7
City of Sweet Home Water SDC Analysis
Water SDC Schedule

Meter Size	SDCr	SDCi	Compliance	Total	Meter Equivalency[1]
3/4"	$5,563	$1,693	$66	$7,321	1
1"	$13,907	$4,232	$165	$18,304	2.5
1 1/2"	$27,814	$8,464	$329	$36,607	5
2"	$44,503	$13,542	$526	$58,571	8
3"	$89,006	$27,083	$1,053	$117,143	16
4"	$139,072	$42,318	$1,645	$183,035	25
6"	$278,144	$84,636	$3,290	$366,071	50
8"	$445,031	$135,417	$5,265	$585,713	80

[1]Equivalencies reflect the hydraulic capacity of each meter size relative to a 5/8" X ¾" meter (the smallest meter size used to serve residential customers). The City's current standard meter size is ¾"; however, residential water use is not materially different between 5/8" X ¾" and ¾" meters.

Inflationary Adjustments

In accordance with Oregon statutes, the SDCs will be adjusted annually based on a standard inflationary index. Specifically, the City plans to use the ENR Seattle CCI as the basis for adjusting the SDCs annually.

Section 4

Transportation SDC Methodology

The updated transportation SDC methodology is structured as an improvement SDC only. The cost per trip is calculated by dividing the future growth-related capacity costs by the growth in future trips. The transportation SDC for a particular development is then determined by multiplying the cost per trip by the number of trips associated with the development.

Determine Capacity Needs

Capacity needs for the transportation system are stated in terms of average daily vehicle trips. Regional population and employment data were utilized in conjunction with trip rates from the Institute of Traffic Engineers (ITE) *Trip Generation Manual* to approximate the existing and future number of vehicle trips generated by households and businesses in the City. **Table 4-1** shows a summary of the estimated current and projected future year average daily trip (ADT) ends based on this analysis. The detailed trip generation assumptions are presented in Tables A-1 through A-3 in Appendix A.

As shown in Table 4-1, the growth in trip ends over the 20-year planning period is 18,909, which is 21 percent of total future trips.

Table 4-1
City of Sweet Home Transportation SDC Methodology
Estimated Vehicle Trip Generation (Average Daily Trips)[1]

	Current	Future	Growth
Residential	33,668	44,190	10,522
Nonresidential	35,845	44,232	8,387
Total	**69,513**	**88,422**	**18,909**

[1]See Appendix A for detailed assumptions.

Develop Cost Basis

The value of capacity needed to serve growth in aggregate within the planning period is referred to as the "cost basis". The transportation SDC cost basis is limited to future improvement costs.

Improvement Fee Cost Basis

The cost of future capacity-increasing improvements (the improvement fee cost basis) is based on the SDC project list presented in **Table 4-2** (next page). The improvements are based on the City's capital improvement plan. The growth share is determined based on the type of improvement, as described in subsequent sections.

Table 4-2
Transportation SDC Methodology
Transportation SDC Improvement Fee Cost Basis and Project List (1000's)

Street	Description	Year	Total Cost	Capacity Portion	Other Funding (City)[1]	Grant Funding[2]	Developer Funding[3]	Net Capacity Portion	Growth Share of Capacity	SDC Cost
Hwy 20/54th to Riggs Hill	City matching funds for ODOT STIP project (sidewalks from 54th Avenue to Riggs Hill Rd.)	2021	$300	$300	$0	$0	$0	$0	100%	$0
Harding St	Full street overlay and half street improvement on south side of Harding Street including sidewalk, curb, gutter, and catch basins.	2026	$450	$140	$80	$0	$0	$60	100%	$60
11th Ave & Redwood	Identify & install road drainage, connect sidewalk from Northside Park to 12th Ave, and pave street in poor condition.	5+ Years	$300	$160	$40	$0	$0	$120	100%	$120
46th Ave; Airport Lane to Main St; Airport Lane; 46th to 47th	Sidewalk both sides of local street	5+ Years	$300	$82	$70	$0	$0	$12	100%	$12
Clark Mill Rd; Long St to Main St	Sidewalk and bike lane both sides of street	5+ Years	$0	$0	$0	$0	$0	$0		$0
Clark Mill Rd; Main St to Zelkova St	Sidewalk and bike lane both sides of street	5+ Years	$2,300	$2,300	$32	$1,840	$0	$428	77%	$328
Mtn View Rd; Ames Creek Rd to Long St	Sidewalk both sides of street	5+ Years	$1,800	$1,800	$12	$1,440	$0	$348	100%	$348
Long St; 35th Ave to 43rd Ave	Sidewalk both sides of street	5+ Years	$500	$500	$50	$0	$0	$450	100%	$450
44th Ave; Main St to Airport Rd	Sidewalk both sides of street	5+ Years	$400	$400	$70	$0	$0	$330	100%	$330
Tamarack St; 12th Ave to 18th Ave	Sidewalk both sides of street	5+ Years	$1,400	$1,400	$70	$0	$0	$1,330	100%	$1,330
43rd Ave; Main St to Osage St	Sidewalk both sides of street	5+ Years	$350	$350	$0	$0	$0	$350	100%	$350
18th Ave; Mtn View Rd to bus barn	Sidewalk infill both sides of street	5+ Years	$60	$60	$30	$0	$0	$30	100%	$30
18th Ave; Main St to Tamarack, Tamarack to Yucca	Sidewalk both sides of street	5+ Years	$320	$320	$25	$0	$0	$295	100%	$295
Hwy 228; Oak Terrace to Long St	Sidewalk one side of street	5+ Years	$130	$130	$0	$0	$0	$130	100%	$130
24th Ave; Main St to railroad	Widen street (add a lane)	5+ Years	$1,100	$1,100	$0	$0	$0	$1,100	100%	$1,100
New street development for Mill Property	Main St to Quarry Park, 18th Ave to Clark Mill Rd; new sidewalk on Yucca, Ulex, Tamarack. New streets 24th Ave, Mill Pond Dr, etc.	5+ Years	$7,500	$7,500	$863	$0	$3,750	$2,888	100%	$2,888
			$17,210	**$16,542**	**$1,342**	**$3,280**	**$3,750**	**$7,871**	**$0**	**$7,770**

[1]Includes stormwater and water and sewer infrastructure
[2]Assumes grant funding of 80% for Clark Mill and Mountain View roads
[3]Assumes developer funding 50% of total project costs:

Roadway Improvements

The projects shown in Table 4-2 include upgrades to existing facilities (i.e., widening and extensions). The project costs are reduced by non-capacity project elements (e.g., existing street overlays), utility improvements (e.g., water and stormwater costs), and local capacity costs estimated to be funded directly by developers.

Multimodal Facilities

Growth capacity needs for bike and pedestrian facilities are evaluated based on a planned level of service (LOS) basis. The planned LOS is defined as the quantity of future facilities per capita served.

The following equation shows the calculation of the planned LOS:

$$\frac{Existing\,Q + Planned\,Q}{Future\,Population\,Served} = Planned\,LOS$$

Where:

Q = quantity (miles of bike or pedestrian facilities), and
Future Population Served = 12,259

The existing and planned future miles of bike and pedestrian facilities are shown in **Table 4-3**.

Table 4-3
City of Sweet Home Transportation SDC Methodology
Existing and Future Bike and Pedestrian Facilities [1]

Facility Type	Current (Miles)	Planned (Miles)	Future (Miles)
Bike Lanes	1.5	1.2	2.6
Sidewalks	45.5	10.9	56.3

[1] Source: City of Sweet Home.

Table 4-4 presents the existing and planned LOS for bike and pedestrian facilities, based on the existing and planned future facilities presented in Table 4-3 divided by the estimated existing and projected population (in 1,000s). The future LOS for bike and sidewalk facilities is lower than the existing LOS, so there are no existing deficiencies and 100 percent of the planned future bike and sidewalk improvements are SDC-eligible.

Table 4-4
City of Sweet Home Transportation SDC Methodology
Existing and Future Level of Service

	Miles/1,000 Pop[1]	
Facility Type	Current	Future
Bike Lanes	0.16	0.21
Sidewalks	4.87	4.59

[1] Current population = 9,340; future population =12,259.

Develop Unit Costs

Based on the growth trips and SDC cost basis summarized previously, the total cost per growth trip is equal to $413, as shown in **Table 4-5**

Table 4-5
City of Sweet Home Transportation SDC Methodology
Transportation SDC Unit Cost Calculation

	Growth $ [1]	Growth Trips [2]	$/Trip
Improvement	$7,770,379	18,909	$410.94
Compliance			$2.87
Total	**$7,770,379**		**$413.81**

[1] From Table 4-2
[2] From Table 4-1

Compliance Charge

Local governments are entitled to include in the SDCs, a charge to recover costs associated with complying with the SDC statutes. Compliance costs include costs related to developing and administering the SDC methodology and credit system, as well as annual accounting and other City administration costs. The City's Transportation System Plan will be partially funded by a grant, so compliance costs include only the non-grant funded portion and the SDC methodology and annual administrative costs.

Table 4-6 shows the calculation of the compliance charge per trip, which is $2.87 per trip.

Table 4-6
City of Sweet Home Transportation SDC Methodology
Transportation Compliance Charge

	Total $	Amortize (Years)	Annual $	Growth %	Growth $
SDC Study	$5,000	5	$1,000	100%	$1,000
TSP	$30,000	10	$3,000	24%	$714
Accounting, Legal, Planning	$1,000	1	$1,000	100%	$1,000
			Total Cost		$2,714
			Annual ADT		945
			Compliance $/Trip		**$2.87**

SDC Schedule

The SDC for an individual development is based on the cost per trip and the number of trips (average daily) attributable to a particular development. The number of development trips is computed as follows:

Number of Development Trips = Trip Generation Rate X Adjustment Factors X Development Units

Table 4-7 (next page) includes the transportation SDC rates and traffic impact assumptions for typical land use categories.

Table 4-7
City of Sweet Home Transportation SDC Methodology
Transportation SDC Schedule1

ITE Code	Description	Unit of Measure	Avg. Daily Trip Rate	Diverted Trip Adj.	Pass-by Adj.	Total Adj. Factor [1]	Adj. Daily Trip Rate	SDC per Unit[2]
110	General Light Industrial	1,000 Gross SF	4.96	0%	0%	1.00	4.96	$2,053
130	Industrial Park	1,000 Gross SF	3.37	0%	0%	1.00	3.37	$1,395
140	Manufacturing	1,000 Gross SF	3.93	0%	0%	1.00	3.93	$1,626
150	Warehousing	1,000 Gross SF	1.74	0%	0%	1.00	1.74	$720
151	Mini Warehouse	1,000 Gross SF	1.51	0%	0%	1.00	1.51	$625
170	Utilities	1,000 Gross SF	13.24	0%	0%	1.00	13.24	$5,479
210	Single Family Dwelling/Townhome	PER DU	9.44	0%	0%	1.00	9.44	$3,906
220	Apartments/Condos	PER DU	7.32	0%	0%	1.00	7.32	$3,029
240	Manufactured Housing	PER DU	5.00	0%	0%	1.00	5.00	$2,069
251	Senior Housing Detached	PER DU	4.27	0%	0%	1.00	4.27	$1,767
252	Senior Housing Attached	PER DU	3.70	0%	0%	1.00	3.70	$1,531
253	Congregate Care Facility	PER DU	2.02	0%	0%	1.00	2.02	$836
254	Assisted Living	BEDS	2.60	0%	0%	1.00	2.60	$1,076
255	Continuing Care	UNITS	2.40	0%	0%	1.00	2.40	$993
310	Hotel/Motel	PER ROOM	8.36	0%	0%	1.00	8.36	$3,459
411	Public Park	PER ACRE	2.19	0%	0%	1.00	2.19	$906
430	Golf Course	HOLES	30.38	0%	0%	1.00	30.38	$12,572
491	Tennis	PER COURT	27.71	0%	0%	1.00	27.71	$11,467
495	Community Center	1,000 Gross SF	28.82	0%	0%	1.00	28.82	$11,926
520	Elementary School	PER STUDENT	1.89	0%	0%	1.00	1.89	$782
536	Private School (K-12)	PER STUDENT	2.48	0%	0%	1.00	2.48	$1,026
522	Middle School/Junior High School	PER STUDENT	2.13	0%	0%	1.00	2.13	$881
530	High School	PER STUDENT	2.03	0%	0%	1.00	2.03	$840
540	Junior/Community College	PER STUDENT	1.15	0%	0%	1.00	1.15	$476

ITE Code	Description	Unit of Measure	Avg. Daily Trip Rate	Diverted Trip Adj.	Pass-by Adj.	Total Adj. Factor [1]	Adj. Daily Trip Rate	SDC per Unit[2]
550	University/College	PER STUDENT	1.56	0%	0%	1.00	1.56	$646
560	Place of Worship	1,000 Gross SF PER TGSF	6.95	0%	0%	1.00	6.95	$2,876
565	Day Care Center	PER STUDENT	4.09	56%	0%	0.44	1.80	$745
590	Library	1,000 Gross SF PER TGSF	72.05	0%	0%	1.00	72.05	$29,815
610	Hospital	1,000 Gross SF PER TGSF	10.72	0%	0%	1.00	10.72	$4,436
620	Nursing Home	PER BED	3.06	0%	0%	1.00	3.06	$1,266
630	Clinic	1,000 Gross SF	38.16	0%	0%	1.00	38.16	$15,791
710	General Office Building	1,000 Gross SF	9.74	0%	0%	1.00	9.74	$4,031
720	Medical-Dental Office	1,000 Gross SF	34.8	0%	0%	1.00	34.80	$14,401
730	Government Office	1,000 Gross SF	22.59	0%	0%	1.00	22.59	$9,348
732	Us Post Office	1,000 Gross SF	103.94	0%	0%	1.00	103.94	$43,012
760	Research & Development Center	1,000 Gross SF	11.26	0%	0%	1.00	11.26	$4,660
770	Business Park	1,000 Gross SF	12.44	0%	0%	1.00	12.44	$5,148
812	Building Materials & Lumber Store	1,000 Gross SF	18.05	0%	0%	1.00	18.05	$7,469
813	Free-Standing Discount Superstore	1,000 Gross SF	50.7	0%	29%	0.71	36.00	$14,896
816	Hardware/Paint Store	1,000 Gross SF	9.14	0%	26%	0.74	6.76	$2,799
817	Nursery (Garden Center)	1,000 Gross SF	68.1	0%	0%	1.00	68.10	$28,181
820	Shopping Center/Retail	1,000 Gross SF Leasable Area	37.75	26%	34%	0.40	15.10	$6,249
841	Automobile Sales	1,000 Gross SF	27.84	0%	0%	1.00	27.84	$11,521
843	Automobile Parts Sales	1,000 Gross SF	55.34	0%	43%	0.57	31.54	$13,053
850	Supermarket	1,000 Gross SF	106.78	38%	36%	0.26	27.76	$11,489
851	Convenience Market	1,000 Gross SF	762.28	16%	66%	0.18	137.21	$56,779
854	Discount Supermarket	1,000 Gross SF	90.87	28%	21%	0.51	46.34	$19,178
857	Discount Club	1,000 Gross SF	41.8	0%	37%	0.63	26.33	$10,897
862	Home Improvement Superstore	1,000 Gross SF	30.74	0%	42%	0.58	17.83	$7,378
863	Electronics Superstore	1,000 Gross SF	41.05	0%	40%	0.60	24.63	$10,192

ITE Code	Description	Unit of Measure	Avg. Daily Trip Rate	Diverted Trip Adj.	Pass-by Adj.	Total Adj. Factor [1]	Adj. Daily Trip Rate	SDC per Unit[2]
880	Pharmacy/Drugstore W/Out Drive Thru Window	1,000 Gross SF	90.08	14%	53%	0.33	29.73	$12,301
881	Pharmacy/Drugstore with Drive Thru Window	1,000 Gross SF	109.16	13%	49%	0.38	41.48	$17,165
890	Furniture Store	1,000 Gross SF	6.3	0%	53%	0.47	2.96	$1,225
912	Drive-In Bank	1,000 Gross SF	100.03	22%	35%	0.43	43.01	$17,799
931	Quality Restaurant	1,000 Gross SF	83.84	27%	44%	0.29	24.31	$10,061
932	High Turnover Restaurant	1,000 Gross SF	112.18	26%	43%	0.31	34.78	$14,391
934	Fast Food Restaurant with Drive-Thru	1,000 Gross SF	470.95	23%	50%	0.27	127.16	$52,619
937	Coffee/Donut with Drive-Through	1,000 Gross SF	820.38	0%	89%	0.11	90.24	$37,343
941	Quick Lubrication Vehicle Shop	SERVICE STALL	40.00	0%	0%	1.00	40.00	$16,553
944	Gasoline/Service Station	PER VEH.FUEL.POS.	172.01	35%	42%	0.23	39.56	$16,371
945	Gas/Service Station W/Convenience Mkt	PER VEH.FUEL.POS.	205.36	31%	56%	0.13	26.70	$11,047

[1] Discounted for pass-by and diverted link trips.

[2] Based on cost per new trip: $413.81.

Source: Trip Generation, Institute of Transportation Engineers, 10th Edition

SF = Square Feet
DU = Dwelling Unit
VEH. FUEL POS. = Vehicle Fueling Position

Trip Generation Rates

Transportation SDCs are based on the number of trips a development is likely to generate, specifically the "average daily" trip generation. The City will use the ITE average daily trip generation rates to determine the SDCs for individual developments. Use of ITE trip generation data is standard in the transportation industry. ITE trip rates by land use are based on studies from around the country, and in the absence of local data, represent the best available source of trip data for specific land uses.

Table 4-7 provides trip rate assumptions for sample land uses based on the ITE Trip Generation Manual 10th Edition. In the future, the City will use the most current version of the ITE Trip Generation Manual that is available. Furthermore, for land uses that are not explicitly identified in Table 4-7, City staff will determine the appropriate SDC rate, based on the specific use.

Trip Rate Adjustments

The SDC methodology and Table 4-7 include pass-by and diverted linked trip adjustments to trip generation rates.

Pass-by Trips

Pass-by trips refer to trips that occur when a motorist is already on the roadway, as in the case of a traveler stopping by a fast-food restaurant on the way home from work. In this case, the motorist making a stop while "passing by" is counted as a trip generated by the restaurant, but it does not represent a new (or primary) trip on the roadway. Pass-by trip adjustments in the updated methodology are based on published data by land use from the ITE.

Diverted Link Trips

Diverted link trips are another type of non-primary trip. In this case, the motorist will divert from a primary route to access a nearby use (e.g., a vehicle may turn off a major roadway onto an intersecting street to access a land use), and then return to the original route to complete the trip. As with the pass-by trip adjustments, the diverted link trip adjustments included in the SDC methodology are based on reported ITE data.

Inflationary Adjustments

In accordance with Oregon statutes, the SDCs will be adjusted annually based on a standard inflationary index. Specifically, the City plans to use the ENR Seattle construction cost index as the basis for adjusting the SDCs annually.

Section 5

Stormwater SDC Methodology

This section presents the stormwater system development charge (SDC) methodology and calculations. The general methodology begins with an analysis of system planning and design criteria to determine growth's capacity needs, and how they will be met through existing system available capacity and capacity expansion. Then, the existing and future facilities needed to serve growth over the planning period are valued to determine the "cost basis" for the SDCs. The cost basis is then spread over the total growth capacity to determine the system wide unit costs of capacity. The final step is to determine the SDC schedule, which identifies how different developments will be charged, based on their estimated capacity requirements.

Determine Capacity Needs

Impervious surface area is the most common method of measuring the volume of runoff or demand placed on a stormwater system by its users. Impervious areas are hard surfaces including (but not limited to) rooftops, driveways, walkways, parking lots, and concrete surface, asphalt paving, or compacted gravel that cause more runoff from an area than existed prior to the development. The greater the amount of impervious area on a developed lot, the greater the amount of runoff generated from that development. While other factors can influence the amount of runoff, the amount of impervious surface area is generally considered the primary determinant of the volume of runoff and the primary cause of any increase in the rate of runoff.

A typical residential lot is estimated to have 3,200 square feet of impervious area and is used to determine the number of equivalent dwelling units (EDUs) for the system. The current number of EDUs is available from the City's stormwater utility billing data. **Table 5-1** shows current and projected future EDUs.

Table 5-1

City of Sweet Home Stormwater SDC Analysis

Stormwater System Planning Assumptions

			Growth	
	Current	**Future**	**Amount**	**%**
Population[1]	9,340	12,259	2,919	24%
EDUs[2]	5,066	6,650	1,583	24%

[1]Current PSU Certified estimate July 1, 2019; future based on Wastewater Facility Plan

[2]Existing from City of Sweet Home billing system; future based on population growth.

Develop Cost Basis

The stormwater SDC methodology is based on a combined reimbursement and improvement fee.

Reimbursement Fee

The reimbursement fee is based on the costs of capital improvements already constructed, as estimated from the City's inventory of conveyance system assets. Existing conveyance pipe value is assumed to serve existing and future development in proportion to the number of EDUs. As shown in Table 5-2, the reimbursement cost basis is $1.2 million (24 percent of the estimated value of the existing conveyance system).

Table 5-2
City of Sweet Home Stormwater SDC Analysis
Stormwater Reimbursement Fee Cost Basis

Description	Estimated Value	Growth Share %	Growth Share $
Conveyance	$5,181,400	24%	$1,233,747
			$0
Total	**$5,181,400**		**$1,233,747**

Source: Murraysmith based on existing pipe inventory

Improvement Fee

Table 5-3 (next page) shows the improvement fee cost basis which is limited to stormwater facilities to be constructed as part of road improvements identified in the Transportation SDC project list (Table 4-2). As shown in Table 5-3, the improvement fee cost basis is about $741,500.

Table 5-3
City of Sweet Home Stormwater SDC Analysis
Stormwater SDC Improvement Fee Cost Basis (Project List)

Project Description	Year	Total Stormwater Cost[1]	Capacity Portion	Grant Funding[2]	Developer Funding[3]	Net Capacity Portion	Growth Capacity Share %	Growth Capacity Share $
Road Related Infrastructure								
Harding St	2026	$80,000	$80,000			$80,000	100%	$80,000
11th Ave & Redwood	+5 Yrs	$40,000	$40,000			$40,000	100%	$40,000
46th Ave from Airport Lane to Main St, and Airport Lane from 46th to 47th	+5 Yrs	$70,000	$70,000			$70,000	100%	$70,000
Clark Mill Rd from Main St to Zelkova St	+5 Yrs	$160,000	$160,000	$128,000		$32,000	100%	$32,000
Mountain View Rd from Ames Creek Rd to Long St	+5 Yrs	$60,000	$60,000	$48,000		$12,000	100%	$12,000
Long St from 35th Ave to 43rd Ave	+5 Yrs	$50,000	$50,000			$50,000	100%	$50,000
44th Ave from Main St to Airport Rd	+5 Yrs	$70,000	$70,000			$70,000	100%	$70,000
Tamarack St from 12th Ave to 18th Ave	+5 Yrs	$70,000	$70,000			$70,000	100%	$70,000
43rd Ave from Main St to Osage St	+5 Yrs		$0			$0	100%	$0
18th Ave from Mountain View Rd to bus barn	+5 Yrs	$30,000	$30,000			$30,000	100%	$30,000
18th Ave from Main St to Tamarack (one side) and from Tamarack to Yucca (both sides)	+5 Yrs	$25,000	$25,000			$25,000	100%	$25,000
Hwy 228 from Oak Terrace to Long St	+5 Yrs		$0			$0	100%	$0
24th Ave from Main St to railroad	+5 Yrs		$0			$0	100%	$0
Main St to Quarry Park, and 18th Ave to Clark Mill Rd; includes new sidewalk on Yucca, Ulex, Tamarack. New streets 24th Ave, Mill Pond Dr, etc.	+5 Yrs	$525,000	$525,000		$262,500	$262,500	100%	$262,500
								$0
Total		**$1,180,000**	**$1,180,000**	**$176,000**	**$262,500**	**$741,500**	**63%**	**$741,500**

[1]Includes stormwater improvement costs only
[2]Assumes grant funding of 80% for Clark Mill and Mountain View roads
[3]Assumes developer funding 50% of total project costs:

Develop Unit Costs

The unit cost of capacity is determined by dividing the cost basis by the growth in EDUs presented in Table 5-1. **Table 5-4** shows this calculation.

Table 5-4
City of Sweet Home Stormwater SDC Analysis
Stormwater Unit Cost Calculation

Item	Improvement	Reimbursement
Cost Basis	$741,500	$1,233,747
Growth (EDUs)	1,583	1,583
Cost per EDU	$468	$779
Capacity Requirements per Unit	1.00	1.00
Cost per Unit	**$468**	**$779**

Compliance Costs

Compliance costs include costs related to developing the SDC methodology and project list (i.e., a portion of master planning costs), and annual accounting and budgeting. The estimated compliance cost per EDU is $55, as shown in **Table 5-5.**

Table 5-5
City of Sweet Home Stormwater SDC Analysis
Stormwater Compliance Charge

Component	Years	Total	Growth %	Annualized $
SDC Study	5	$5,000	100%	$1,000
Master Planning	10	$100,000	24%	$2,381
Auditing/Accounting	1	$1,000	100	$1,000
Total Annual Costs		$106,000		$4,381
Estimated Annual EDUs				79
Compliance Charge/EDU				**$55**

SDC Schedule

As shown in **Table 5-6**, the total cost per EDU is equal to $1,303. As discussed previously, an EDU is equal to 3,200 square feet of impervious area. Single family residential dwellings will be charged uniformly based on the number of dwelling units and the cost per EDU ($1,303). Other development will be assessed SDCs based on the calculated number of EDUs (total measured impervious area for the development divided by 3,200 square feet.)

Table 5-6
City of Sweet Home Stormwater SDC Analysis
Stormwater SDC Schedule

Meter Size	SDCr	SDCi	Compliance	Total
Single Family Residential ($/Dwelling Unit)	$779	$468	$55	$1,303
Nonresidential ($/EDU)[1]	$779	$468	$55	$1,303

[1]Equivalent Dwelling Unit = 3,200 SQ FT impervious area

Inflationary Adjustments

In accordance with Oregon statutes, the SDCs will be adjusted annually based on a standard inflationary index. Specifically, the City plans to use the ENR Seattle construction cost index as the basis for adjusting the SDCs annually.

Section 6

Park SDC Methodology

The methodology used to calculate parks SDCs begins with determination of the "cost basis" (the costs in aggregate associated with meeting the capacity needs of growth). Then, growth costs are divided by the projected growth units (population and employees) to determine the system-wide unit costs of capacity. Finally, the SDC schedule is developed which identifies how the system-wide costs will be assessed to individual development types.

Determine Capacity Needs

Park capacity is measured in terms of people served – resident population and nonresident employees. **Table 6-1** provides population and employment data derived from the United States census and other sources.

Table 6-1
City of Sweet Home Parks SDC Analysis
Park SDC Population and Employment Data

Year	Population	Employment	Equivalent Population
Current[1]	9,340	2,355	9,763
2040[2]	12,259	2,939	12,787
Future Growth	**2,919**	**584**	**3,024**
% of 2040			*23.6%*

[1]PSU Certified estimate July 1, 2019
[2] Wastewater Facilities Plan

The concept of *equivalent population* is used to recognize different utilization levels of parks by the general population (to estimate residential development needs) and employees (to estimate nonresidential development needs). Employees are assumed to have an equivalency factor significantly less than residents, owing to the limited number of hours available outside of work for park use. Equivalent population assumptions are shown in **Table 6-2** (next page) based on more detailed calculation shown in Appendix B.

Table 6-2
City of Sweet Home Parks SDC Analysis
Park SDC Equivalent Population Allocation

	Growth Units	Equivalency Factors[1]	Residential Equivalents[2]	% Total
Population	2,919	1.00	2,919	96.5%
Employment	584	0.18	105	3.5%
Total	**3,503**		**3,024**	**100%**

[1] Based on hours available for park use and portion of workers from outside City (See analysis in Appendix B)
[2] Growth units X equivalency factor

Develop Cost Basis

The parks SDC methodology is based on a combined reimbursement and improvement fee.

Reimbursement Fee

The reimbursement fee is based on the costs of park facilities included in the City's 2019 Appraisal Report. Existing facility value is assumed to serve future development in proportion to growth's share of the projected future equivalent population (23.6 percent). As shown in **Table 6-3**, the reimbursement cost basis is $1.2 million.

Table 6-3
City of Sweet Home Parks SDC Analysis
Park Reimbursement Fee Cost Basis

	Cash Value	Reimbursement %	Reimbursement $
Community Center	$4,676,130	23.6%	$1,105,835
Sankey Park	$505,500	23.6%	$119,543
	$5,181,630		$1,225,378

[1]Source: Appraisal Report November 30, 2019

Improvement Fee

Table 6-4 (next page) provides the parks SDC project list based on the City's Capital Improvement Plan. Improvements to existing parks will benefit both existing and future development through enhanced levels of performance of park and recreation facilities. Therefore, the costs for these improvements (net of grant funding) are all allocated between existing and future development in proportion to each group's share of the total future equivalent population (23.6 percent for growth, as shown in Table 6-4). Similarly, new special facilities provide new types of recreation opportunities for both existing and future development and are therefore allocated proportionately. As shown in Table 6-4, the total improvement fee cost basis is $602,362.

Table 6-4
City of Sweet Home Park SDC Analysis
Park SDC Improvement Fee Cost Basis (Project List)

	Fiscal Year	Total Cost	Other Funding	Net Cost	Future Growth %	Future Growth $
Name						
Ashbrook						
Design and construct curb & sidewalk and pave parking lane on Juniper St	2022-23	$20,000		$20,000	23.6%	$4,730
Subtotal		$20,000	$0	$20,000		$4,730
Clover Memorial						
Design & construct play structure, gardens, trees and creek plants, drainage, trash cans, pet stations, BBQ, picnic tables and benches. Remove portion of Fountain Hill to improve visibility	5+ Years	$50,000		$50,000	23.6%	$11,824
Subtotal		$50,000	$0	$50,000		$11,824
Hobart Natural Area						
Design & construct parking area primary loop. Add signage, trash cans, pet stations, BBQ, picnic tables and benches	5+ Years	$60,000		$60,000	23.6%	$14,189
Design & construct approach roadway from 35th Ave. Add gardens, trees and creek plants	5+ Years	$20,000		$20,000	23.6%	$4,730
Design & construct parking area secondary loop and parking area off Foothills Dr	2023-24	$25,000		$25,000	23.6%	$5,912
Subtotal		$105,000	$0	$105,000		$24,831
Northside						
Design & construct playground and river access trail. Install ramp/stairs/railing, signage, tables, benches, pet stations, trash cans, BBQ, gardens, trees and creek plants	2023-2025	$55,000		$55,000	23.6%	$13,007
Subtotal		$55,000	$0	$55,000		$13,007
Sankey						
Construct plaza, paths, lighting, playground improvements, bike racks, tables, benches	2020-21	$440,000	$278,200	$161,800	23.6%	$104,053
Construct bathroom, tables & benches	2021-2023	$40,000		$40,000	23.6%	$9,459
Design & construct path connection to 16th Ave & Fir St.	2022-23	$60,000		$60,000	23.6%	$14,189
Design & construct pedestrian bridge or route from Sankey Park to the Jim Riggs Community Center	2023-24	$200,000		$200,000	23.6%	$47,297
Subtotal		$740,000	$278,200	$461,800		$174,999
Strawberry Hills						
Design & construct loop trail Phase 2 and either pavilion or second play structure	2022-23	$65,000		$65,000	23.6%	$15,372
Design & construct parking lot, loop trail and restroom; upgrade irrigation system; add garden space, trees and creek plants	2020-21	$159,000		$159,000	23.6%	$37,601
Subtotal		$224,000	$0	$224,000		$52,973

	Fiscal Year	Total Cost	Other Funding	Net Cost	Future Growth %	Future Growth $
Quarry Park						
Trails		$332,111		$332,111	23.6%	$78,539
Pavilions/Structures		$560,000		$560,000	23.6%	$132,432
Activity Fields		$241,037		$241,037	23.6%	$57,002
Environmental & Design		$220,000		$220,000	23.6%	$52,027
Subtotal		$1,353,148	$0	$1,353,148		$319,999
Total		**$2,547,148**	**$278,200**	**$2,268,948**		**$602,362**

Develop Unit Costs

To determine the SDC schedule, the system-wide unit costs of capacity are first determined, as shown in **Table 6-5**.

The unit cost calculations begin with allocation of the cost basis between residential and nonresidential development based on each group's share of future equivalent population. As shown in Tables 6-1 and 6-2, total growth in equivalent population is estimated to be 3,024, including 2,919 new residents (96.5 percent) and 105 nonresidential equivalents (3.5 percent). Based on these allocations, residential development is allocated almost $1.8 million in project costs, and nonresidential is allocated $63,364.

Table 6-5
City of Sweet Home Parks SDC Analysis
Park SDC Unit Cost Calculation

	Growth $	Units	$/Unit
Improvement Fee			
Growth Costs			
Residential	$581,480	2,919	$199
Nonresidential	$20,883	584	$36
Total	$602,362		
Reimbursement Fee			
Growth Costs			
Residential	$1,182,897	2,919	$405
Nonresidential	$42,481	584	$73
Total	$1,225,378		
Total			
Growth Costs			
Residential	$1,764,377	2,919	$604
Nonresidential	$63,364	584	$108
Total	$1,827,740		

The growth capacity units for both residential and nonresidential developments are people; in the case of residential it is total population, and in the case of nonresidential the unit of measure is employment. The growth in population and employment during the 20-year planning period is estimated to be 2,919 and 584, respectively. Dividing the residential cost by the total growth in population yields a unit cost per person of $604. Similarly, the unit cost for nonresidential is determined to be $108 per employee.

Compliance Costs

Compliance costs generally include costs associated with developing the SDC methodology and project list (i.e., a portion of parks planning costs). **Table 6-6** shows the calculation of the compliance charge per EDU. SDC methodology updates and annual accounting costs are 100 percent related to new growth, while the parks planning costs are allocated in proportion to equivalent population. Total compliance costs are estimated to be $63,649 during the planning period. Compliance costs are allocated to residential and nonresidential in proportion to the project costs.

Table 6-6
City of Sweet Home Parks SDC Analysis
Park Compliance Charge

	Growth %	Number	Total
Parks Plan Update	24%	1	$23,649
SDC Methodology Updates	100%	4	$20,000
Annual Accounting, Reporting	100%	20	$20,000
Total			$63,649
Residential Share			$61,442
Nonresidential Share			$2,207
Growth Units			
Residential			2,919
Nonresidential			584
Compliance Cost per Unit			
Residential			$21.05
Nonresidential			$3.78

SDC Schedule

SDCs are assessed to different development types based on average dwelling occupancy and employee density (employees per thousand square feet), as estimated by local or regional data. Data for the City from the American Community Survey were used to determine the average occupants per household. As shown in **Table 6-7**, single family dwellings are estimated to average 2.54 persons per household, compared to an average of 1.41 for multifamily and 2.34 for mobile homes. Based on these occupancy levels and the combined park unit cost and compliance charge of about $625 per person, the SDCs for residential dwellings range from $882 (for multifamily) to $1,591 for single family.

Table 6-7
City of Sweet Home Parks SDC Analysis
Parks SDC Schedule

Development Type	Units	SDCr	SDCi	Compliance	Total
Residential ($/dwell unit)	**pphh[1]**				
Single-Family	2.54	$1,031	$507	$54	$1,591
Multifamily	1.41	$571	$281	$30	$882
Mobile Home	2.34	$948	$466	$49	$1,463
Nonresidential ($/1,000 sf)	**emp/1000 sf[2]**				
Office	2.9	$208	$102	$11	$321
Retail	2.0	$145	$72	$8	$225
Industrial & Institutional	1.7	$121	$60	$6	$187
Warehousing	0.5	$39	$19	$2	$61

[1] PPHH = Persons per household; Source: 2017 American Community Survey 5-Year Estimates
[2] *Metro Urban Growth Report Appendix 6 (Rev. 10/2015); based on outer ring (lowest) densities*

For nonresidential development, the SDC is assessed based on estimated employment density and building size (measured in 1,000 gross square feet). Estimated employment per 1,000 square feet is based on Oregon data for low density communities. The SDC per 1,000 square feet for each nonresidential type is computed by multiplying the cost per employee ($112 including compliance charge) by the estimated employees per 1,000 square feet

(ranging from 0.5 to 2.9). The SDC per 1,000 square feet of building area ranges from $61 for warehouse to $321 for office developments.

Inflationary Adjustments

In accordance with Oregon statutes, it is recommended that the SDCs be adjusted annually based on a standard inflationary index. Specifically, the City uses the ENR Seattle Construction Cost index as the basis for adjusting the SDCs annually.

Appendix A – Trip Generation Analysis

Table A-1
City of Sweet Home Transportation SDC
Projected Average Daily Trip (ADT) Ends (Residential)

	ITE Information[1]		Number of Dwelling Units		ADT Trip Ends		
	Land Use Code	ADTs per unit	Current[2]	2040	Current	Future	Growth
Total housing units							
1-unit, detached	210	9.44	2,836	3,722	26,770	35,136	8,366
1-unit, attached	220	7.32	75	99	549	721	172
2 units	220	7.32	35	47	260	341	81
3 or 4 units	220	7.32	41	53	297	390	93
5 to 9 units	220	7.32	219	288	1,604	2,105	501
10 to 19 units	220	7.32	121	158	883	1,160	276
20 or more units	220	7.32	52	68	379	497	118
Mobile home	240	5.00	585	768	2,926	3,841	914
Boat, RV, van, etc.	240	5.00	-		-	-	-
			3,964	5,202	33,668	44,190	10,522

[1]Institute of Transportation Engineers Trip Generation Manual, 10th Edition
[2]Source: 2017 American Community Survey 5-Year Estimates (DP04), City of Sweet Home

Table A-2
City of Sweet Home Transportation SDC
Sweet Home Jobs by Industry Sector

Sector	Category	Current Employment[1]	ITE Information[2] Code	ADT/ Emp	ADT Trip Ends
Agriculture, Forestry, Fishing and Hunting	Industrial	112	110	3.05	342
Construction	Industrial	22	110	3.05	67
Manufacturing	Industrial	253	140	2.47	625
Wholesale Trade	Industrial	25	130	2.91	73
Retail Trade	Retail	376	815	30.69	11,539
Transportation and Warehousing	Industrial	28	150	5.05	141
Information	Office & Services	25	710	3.28	82
Finance and Insurance	Office & Services	49	912	25.63	1,256
Real Estate and Rental and Leasing	Office & Services	100	710	3.28	328
Professional, Scientific, and Technical Services	Office & Services	19	710	3.28	62
Administration & Support, Waste Management	Office & Services	44	710	16.11	709
Educational Services	Institutional	372	530	22.25	8,277
Health Care and Social Assistance	Office & Services	262	720	8.70	2,279
Accommodation and Food Services	Office & Services	277	320	25.17	6,972
Other Services (excluding Public Administration)	Office & Services	160	820	16.11	2,578
Public Administration	Institutional	157	710	3.28	515
	Total	2,281			35,845

[1] Economic Opportunities Analysis (Eco Northwest, 2014, Ex 40)
[2]Institute of Transportation Engineers Trip Generation Manual, 10th Edition

Table A-3

City of Sweet Home Transportation SDC
Current and Forecast New Nonresidential Trips

	New Trip	ADT Trip Ends		
Current and Forecast Employment	**Adjustment[1]**	Current	Future	**Growth**
Industrial	100.0%	1,248	1,687	440
Commercial (Retail)	66.0%	7,616	9,461	1,845
Office & Commercial Services	100.0%	18,190	23,663	5,474
Institutional	100.0%	8,792	9,420	628
Total		35,845	44,232	8,387

[1]Based on Institute of Transportation Engineers Trip Generation Manual, 10th Edition information

Appendix B – Parks Residential Equivalency

Introduction

Nonresidential development creates demand for parks through employees (living inside or outside the City) that use parks in conjunction with commuting, lunch or other breaks during the workday, company picnics, or other activities, and through overnight visitors that come to the area to recreate or otherwise participate in park-related activities in conjunction with their visit.

While the notion of a nexus between nonresidential development and park system capacity needs is broadly accepted, specific assumptions of how much park usage may be attributable to nonresidential development relative to residential development vary across jurisdictions and often reflect local policy considerations. The impact on parks from employees and visitors relative to residents is referred to as the "residential equivalency."

Hours of Opportunity Model

The SDC methodology determines the residential equivalency for employees based on an "hours of opportunity" model. This approach establishes estimated park usage based on the number of hours different types of users have available during the day to visit parks. It assumes that employees – both resident and nonresident – have opportunities to use parks during the weekdays for a limited time (generally right before or after work, and during breaks). In comparison, residents are assumed to have potential use of parks during non-work or school hours (for employed adults or school age children), or throughout the day (in the case of residents who are unemployed or otherwise not in the work force). Nonresident employees are generally assumed to have the lowest potential park use opportunity due to the need to travel from outside the service area.

Table B-1 provides the detailed assumptions related to hours of park use available to resident and nonresident groups. The assumptions shown in the table are identical to those used by many other agencies in Oregon. The calculated residential equivalency factors from an hours of opportunity approach vary based on the demographics of the specific service area, and whether the nonresidential development impact is assumed to include park usage from both workers living inside the service area and outside, or just outside the area (as in the case of the City's SDC methodology).

Table B-1
Sweet Home Parks SDC Analysis
Weighted Average Park Availability Hours by Class

	Residents				
Season/Period	Not-Employed Adult	Kids (5-17)	Employed Inside	Employed Outside	Non-Resident Employee
Summer (Jun-Sep)					
Weekday					
Before Work			1		1
Breaks			1		1
After Work			2		2
Other Leisure	12	12	2	2	0
Subtotal	12	12	6	2	4
Weekend					
Leisure	12	12	12	12	0
Subtotal	12	12	12	12	0
Hours/Day	***12.00***	***12.00***	***7.71***	***4.86***	***2.86***
Spring/Fall (Apr/May, Oct/Nov)					
Weekday					
Before Work			0.5		0.5
Breaks			1		1
After Work			1		1
Other Leisure	10	4	2	2	0
Subtotal	10	4	4.5	2	2.5
Weekend					
Leisure	10	10	10	10	0
Subtotal	10	10	10	10	0
Hours/Day	***10.00***	***5.71***	***6.07***	***4.29***	***1.79***
Winter (Dec-Mar)					
Weekday					
Before Work			0.5		0.5
Breaks			1		1
After Work			0.5		0.5
Other Leisure	8	2	1	1	0
Subtotal	8	2	3	1	2
Weekend					
Leisure	8	8	8	8	0
Subtotal	8	8	8	8	0
Hours/Day	***8.00***	***3.71***	***4.43***	***3.00***	***1.43***
Annual Average Weighted Hours	***10.00***	***7.14***	***6.07***	***4.05***	***2.02***

Application of Model to Sweet Home Demographic Data

Table B-2 provides the demographic data used to determine the seasonally weighted average number of hours available for park use per person per day for residents (7.35) and nonresident employees (2.02).

Table B-2
City of Sweet Home Parks SDC Analysis
Estimation of Potential Park Use

Category	Persons	Avg. Hours Per person/day	Person Hours/Day
Residents			
Kids (5-17) [2]	2,009	7.14	14,345
Non-Employed Adults [3]	3,853	10.00	38,526
	Employed Adults [1]		
Work in City	657	6.07	3,988
Work out of City	2,715	4.05	10,988
Subtotal	9,234	7.35	67,847
Nonresidents			
Employed Adults	1,230	2.02	2,489
Total in Jobs City	1,887		70,336

[1]U.S. Census 2017 On the Map Inflow Outflow analysis
[2]U.S. Census 2018 ACS 5-Year Estimates Table S0101
[3]U.S. Census 2018 ACS 5-Year Estimates Table S2301

Table B-3 shows the calculation of the residential equivalency per employee based on the assumptions in Table B-1 and B-2. The residential equivalency of 0.18 is the product of the nonresident employee usage factor (7.35/2.02 = 0.28) and the portion of employees that work in the area but live outside (65 percent).

Table B-3
City of Sweet Home Parks SDC Analysis
Residential Equivalency per Employee

Category	Value	Factor
Average Hours/person/day		
Resident weighted average	7.35	
Nonresident employee	2.02	0.28
Employees working in District [1]		
Living in District	657	
Living outside District	1,230	0.65
Total	1,887	
Residential Equivalency per Employee		**0.18**

[1]U.S. Census 2017 On the Map Inflow Outflow analysis