

**CITY OF TIGARD, OREGON
TIGARD CITY COUNCIL
RESOLUTION NO. 10- 71**

A RESOLUTION TO ADOPT WATER SYSTEM DEVELOPMENT CHARGE METHODOLOGY

WHEREAS, Tigard Municipal code chapter 3.24 defines the authority and process for imposing Water System Development Charges (SDCs); and

WHEREAS, the City of Tigard is the managing authority and water provider for the Tigard Water Service Area (TWSA). The TWSA includes the residents of Durham, King City, two-thirds of Tigard, and the Tigard Water District; and

WHEREAS, the Intergovernmental Agreements for Delivery of Water Service, Sections 8.B., state that the Tigard City Council has the authority to modify, alter or repeal the Rules, Rates and Regulations for Water Service within the Tigard Water Service Area; and

WHEREAS, on September 8, 2010, the Intergovernmental Water Board recommended approval of the water SDC methodology; and

WHEREAS, the City of Tigard's water SDCs were last updated in 2000 in Resolution No. 00-66; and

WHEREAS, this resolution provides a uniform and equitable methodology for assessing SDCs to recover some of the cost of the additional infrastructure needed to serve new development; and

WHEREAS, the 2010 Water System Master Plan calls for the City's water distribution system, storage facilities and supply source to be increased to satisfy future water demands; and

WHEREAS, on August 6, 2008, following extensive analysis of various long-term water supply options, the City Council entered into the Lake Oswego-Tigard Water Partnership whereby the cities would jointly develop a shared water system; and

WHEREAS, SDC methodology needs to be updated on a regular basis to ensure fees accurately reflect infrastructure building costs and changing water system priorities, such as the capital improvements listed in the 2010 Water Master Plan and projects related to the Lake Oswego-Tigard Water Partnership; and

WHEREAS, the City's consultant completed a comprehensive water financial plan which included a Water Rate Study and Water System Development Charge Update. The findings are contained in Exhibit A, a memorandum titled, "Tigard Water System Development Charge Methodology," dated October 26, 2010; and

WHEREAS, the City has duly noticed the public hearing of December 14, 2010, and has heard testimony and comments regarding the water SDC methodology; and

NOW, THEREFORE, BE IT RESOLVED by the Tigard City Council that:

SECTION 1: The City Council hereby adopts the SDC methodology described in Exhibit A, a memorandum titled, "Tigard Water System Development Methodology," dated October 26, 2010.

SECTION 2: All previous water SDC methodology, including Resolution No. 00-66, is hereby repealed.

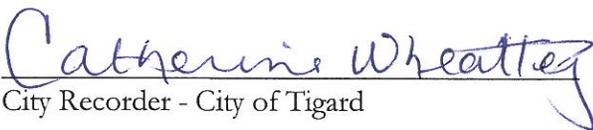
SECTION 3: This resolution is effective immediately upon passage.

PASSED: This 14th day of December 2010.



Mayor - City of Tigard

ATTEST:



City Recorder - City of Tigard

**MEMORANDUM**

To: John Goodrich, City of Tigard **Date:** October 26, 2010

From: Joe Healy, Red Oak Consulting
Paul Matthews, Red Oak Consulting

Re: **Tigard Water System Development Charge Methodology**

Introduction

Like many municipal water suppliers in Oregon, the City of Tigard (City) is faced with increasing costs for the expansion of its water system's capacity to serve growth. To mitigate this cost of growth in its water system, the City has historically assessed system development charges (SDCs) to new customers. As part of its routine business practices, the City has engaged Red Oak Consulting (Red Oak) to review its SDCs to ensure these charges are:

- Fair and Equitable, and
- Avoid subsidizing either new or existing customers.

Water System Development Charge Methodology

The proposed SDC methodology is based on historical investments and future capital improvements as identified by the City. The identified capital improvements are based on the existing water master plans and knowledge of the system.

Reimbursement Fee

The reimbursement fee is based on the capacity buy-in approach, and requires three steps:

1. Fixed asset valuation,
2. Capacity definition, and
3. Assessment schedule.

The following is a description of each step.

Fixed Asset Valuation

Under the proposed methodology, the value of the City's fixed assets is based on an estimate of the water system's reproduction cost new (RCN). An estimate of the value of assets contributed by developers was excluded from the SDC calculation.

The City's system is designed to meet the needs of its customers and provide safe and reliable water service throughout its service area. The system consists of many individual components that serve specific functions. To estimate the value of assets related to each

function, the value of each asset is allocated to one or more of 10 functions. The City's functions are:

1. Groundwater/ ASR
2. PWB Supply
3. L.O.-Tigard System
4. Bonita Pump Station
5. Water Storage
6. Pump Stations
7. 550-530 Intertie
8. Transmission & Distribution
9. Administrative Facilities
10. Field Operations
11. Future Willamette Supply¹

Many assets used in the distribution system are typically contributed by developers and thus excluded from the calculation of the reimbursement fee. To explicitly show the value of the excluded assets, they were assigned to an additional category labeled *Exclude from SDC*. Table 1 summarizes the asset values attributed to each function. Based on the analysis, the total value of the City's water system assets for SDC purposes in fiscal year ending 2010 (FY2010) is \$155 million. Of the total value, \$23 million is excluded from the SDC to account for assets that are considered contributed or obsolete assets. Thus, for the purpose of establishing a reimbursement SDC, the City's water system is valued at approximately \$132 million.

Capacity Definition

The next step in determining the reimbursement fee under the capacity buy-in approach is to define the system capacity. Specifically, under the capacity buy-in approach the system capacity is based on the unused capacity of the system for each function identified above. The City provided data used for this analysis.

Table 2 lists the current capacities of each function. Table 3 presents an estimate of the capacity in the existing system that is available for growth. Underlying the numbers shown in this table is the assumption that one equivalent dwelling unit (EDU) consumes 475.5 gallons of water per day on a peak-day basis.² This estimate is based on the City's most recent estimates and an assumption that the system currently serves 28,785 EDUs. The amount of storage required per EDU is 556 gallons. This value is also derived from the City's analysis of its system and projections. Using these assumptions and the capacities for each function summarized in Table 3, the number of EDUs that can be served by each function is calculated. Subtracting the number of EDUs currently served

¹ Currently the City has no infrastructure related to Future Willamette Supply. This was included only as a placeholder for future SDC updates.

² Much of the City's water system is sized to meet the peak-day demands of its customers. Therefore, peak-day demands are used to estimate the requirements for most of the City's infrastructure.

by the utility generates the number of EDUs available for growth. A description of how the number of EDUs currently served by the City is estimated follows below.

Assessment Schedule Development

Table 4 provides an inventory of the number of EDUs by meter size. The number of EDUs is based on the number of meters by size and the associated equivalency factors. The equivalency factors are calculated based on an analysis of the City's customer billing data for the last five years. Based on the number of meters served by the City and the equivalency schedule presented in Table 4, the total number of EDUs served by the City is estimated to be 28,785.

For connections to the water system with meters larger than 2-inches, the City will forecast the demands on an average-day, peak-day, and peak-hour basis. The number of EDUs associated with the demands will be determined by the following:

$$EDUs = \left(\frac{ADD * 0.400}{226.4} \right) + \left(\frac{(PDD - ADD) * 0.343}{249.1} \right) + \left(\frac{(PHD - PDD) * 0.257}{90.6} \right)$$

Where:

- ADD is the projected average-day demand of the new user in gallons per day, and
- PDD is the projected peak-day demand of the new user in gallons per day, and
- PHD is the projected peak-hour demand of the new user in gallons per day, and

The constants used in the above formula are:

- 0.400 equals the proportion of the City's water facilities allocated to the average-day function.
- 226.4 equals the estimated gallons per day on an average-day basis demanded by an EDU.
- 0.343 equals the proportion of the City's water facilities allocated to the max-day extra-capacity function.
- 249.1 equals the estimated gallons per day of max-day extra-capacity demanded by an EDU.
- 0.257 equals the proportion of the City's water facilities allocated to the max-hour extra-capacity function.
- 90.6 equals the estimated gallons per day of max-hour extra-capacity demanded by an EDU.

The City may update the values in the formula above as its system changes to recognize the changing costs imposed by new large customers.

The proposed equivalency schedule is presented in Table 4. Based on the number of meters served by the City and the equivalency schedule presented in Table 4, the total number of EDUs served by the City is estimated to be 28,785. It should be noted here

that the equivalency factors shown in this table will be used for calculating SDCs for connections to the water system with meters 2-inches and smaller. As described previously, the City will forecast the number of EDUs for connections with meters larger than 2-inches using the above formula.

Fee Calculation

The total costs to be recovered from the reimbursement fee SDC are based on the percentage of remaining capacities by functions calculated in Table 3 and the total system asset values shown in Table 1. Table 5 presents the total reimbursement amount by function. The total amount attributable to the reimbursement fee is approximately \$40 million. Table 6 calculates the reimbursement fee per EDU for each of the functions. The total reimbursement fee per EDU is \$2,936.

Improvement Fee

The improvement fee is based on the City's adopted capital improvement program (CIP). Table 7 presents an overview of the City's CIP. To calculate an improvement fee based on the incremental cost approach, the following three tasks must be completed:

1. Multi-purpose project allocations,
2. Capacity definitions, and
3. Assessment schedule development.

Multi-Purpose Project Allocations

Allocating the costs of multi-purpose projects is an integral part of calculating an improvement fee. A multi-purpose project is an improvement that will serve both growth and address existing needs. Few projects are designed and built exclusively to serve growth or solve an existing deficiency. Rather, projects are often designed to maximize economies of scale in design and construction. Therefore, projects serving both growth and rehabilitation/upgrade (i.e., multi-purpose projects) are allocated to growth and non-growth.

The value of each capital project is allocated to one or more of the system functions described previously. Table 8 summarizes the allocation of capital projects to functions. Tables 9 through 20 show the cost of new capacity for each project within each system function. Based on this information, Table 21 summarizes the percent of capacities available for growth and the resulting value of growth-related improvements attributable to each system function. The total amount of capital improvements costs used to calculate the improvement fee is approximately \$54 million.

Capacity Definition

Table 22 summarizes the system capacities added by function. Similarly, Table 23 presents the estimated number of EDUs available for growth by function.

Assessment Schedule

As with the reimbursement fee, the improvement fee portion of the City's proposed SDC will be based on meter size. Table 4 presents the number of EDUs for each meter size.

Fee Calculation

The improvement fee is calculated based on the cost of the growth-related capital projects and the additional capacities estimated by these projects. Table 24 summarizes the improvement fee by system function. Based on the CIP developed by the City, the improvement fee per EDU is \$3,538.

Results and Recommendations

As shown in Tables 6 and 24, the total reimbursement and improvement fees are calculated to be \$2,936 and \$3,538 respectively, for a total SDC of \$6,474 per EDU. Table 25 presents the resulting schedule of SDCs by meter size.

Supplemental Water SDC

The City will charge a Supplemental Water SDC for any areas outside of the 2010 Service Boundary based on a supplemental adopted CIP list. The Supplemental Water SDC will be additional to the updated Water SDCs adopted by City Council.

Table 1: Net Fixed Asset Valuation - RCN	
Description	FY2010 Assets
Groundwater/ ASR	\$3,756,934
PWB Supply	0
LO-Tigard	0
Bonita Pump Station	0
Water Storage	22,640,803
Pump Stations	1,516,807
550-530 Intertie	0
Transmission & Distribution	99,266,414
Administrative Facilities	2,346,745
Field Ops.	2,519,602
Future Willamette Supply	0
Exclude from SDC	22,969,208
Total	\$155,016,513

Table 2: Capacity by Function

System Component	Capacities	Units
Groundwater/ ASR	4.1	MGD
PWB Supply	6.8	MGD
LO-Tigard	0.5	MGD
Bonita Pump Station	0.5	MGD
Water Storage	24.5	MG
Pump Stations	13,600.0	gpm
550-530 Intertie	3,131.6	gpm
Transmission & Distribution	41,338.4	EDU
Administrative Facilities	41,338.4	EDU
Field Ops.	41,338.4	EDU
Future Willamette Supply	0.0	MGD
Exclude from SDC	0.0	0

Table 3: Available Capacities of Existing System

System Component	Requirements per EDU	Units	EDU Available	Subscribed Capacity (EDUs)	Available Capacity (EDUs)	Remaining Capacity
Groundwater/ ASR	171.0	gpd	23,975	28,785	0	0.00%
PWB Supply	283.6	gpd	23,975	28,785	0	0.00%
LO-Tigard	20.9	gpd	23,975	28,785	0	0.00%
Bonita Pump Station	20.9	gpd	23,975	28,785	0	0.00%
Water Storage	556.4	gallons	44,034	28,785	15,249	34.63%
Pump Stations	473.7	gpd	41,338	28,785	12,553	30.37%
550-530 Intertie	0.1	gpm	41,338	28,785	12,553	30.37%
Transmission & Distribution	1.0	EDU	41,338	28,785	12,553	30.37%
Administrative Facilities	1.0	EDU	41,338	28,785	12,553	30.37%
Field Ops.	1.0	EDU	41,338	28,785	12,553	30.37%
Future Willamette Supply	0.0	gpd	0	28,785	0	0.00%
Exclude from SDC	0.0	0	0	0	0	0.00%

Table 4: Inventory of EDUs for FY2010

Meter Size or Service Line Size	Number of Meters	Equivalency Factor	EDUs
5/8 x 3/4 Inch	15,635	1.00	15,635
1 Inch	1,604	2.67	4,279
1.5 Inch	375	8.00	2,999
2 Inch	320	12.99	4,156
3 Inch	24	22.90	550
4 Inch	11	46.97	517
6 Inch	5	50.00	250
8 Inch	5	80.00	400
10 Inch	0	156.30	0
12 Inch	0	225.07	0
Total	17,979		28,785

Table 5: Calculation of Reimbursement Totals

System Component	Capacity Available for Growth	Reimbursement Total
Groundwater/ ASR	0.00%	\$0
PWB Supply	0.00%	0
LO-Tigard	0.00%	0
Bonita Pump Station	0.00%	0
Water Storage	34.63%	7,840,480
Pump Stations	30.37%	460,603
550-530 Intertie	30.37%	0
Transmission & Distribution	30.37%	30,143,834
Administrative Facilities	30.37%	712,627
Field Ops.	30.37%	765,118
Future Willamette Supply	0.00%	0
Exclude from SDC	0.00%	0
Total		\$39,922,662

Table 6: Reimbursement Fee per EDU	
System Component	Proposed Reimbursement SDC
Groundwater/ ASR	\$0
PWB Supply	0
LO-Tigard	0
Bonita Pump Station	0
Water Storage	380
Pump Stations	37
550-530 Intertie	0
Transmission & Distribution	2,401
Administrative Facilities	57
Field Ops.	61
Future Willamette Supply	0
Exclude from SDC	0
Total	\$2,936

Table 7: Overview of CIP Projects	
Description	Total Project Cost
ASR Well 3 – Design & Equip	\$2,609,963
New Pump Station - Siting Study	50,000
New Pump Station - Design	255,000
New Pump Station - Construction Year 1 (67%)	963,000
New Pump Station - Construction Year 2 (33%)	481,000
New PRV from 550G to 410 Zone	105,000
Pipeline connecting 550G and 530 Zones - Design	197,000
Pipeline connecting 550G and 530 Zones - Construction	1,770,000
Annual Fire Flow Improvement Allocation	3,300,000
Pipeline for installing PRV 550G-4	17,000
Pipeline in Main St. & Tigard Ave.	101,000
Water Master Plan Update	140,000
Willamette Sherwood Pipeline	0
550-6270-755545 - ASR3	463,755
550-6270-755545 -	287,066
550-6270-755827 - 550' Zone 10Mil	3,952,087
550-6270-755828 - 550' Zone Res#2	5,082,407
550-6270-755828 -	1,080,352
550-6270-755951 - Water Res Seismic Upgrade	52,270
550-6270-755970 -	7,052
550-6270-757012 - Menlor Tank Recirc	39,132
Joint Water Supply Projects	89,299,160
Total	\$110,252,244

Table 8: Allocation of CIP to System Functions													
Description	Groundwater/ ASR	PWB Supply	LO-Tygrad	Bonita Pump Station	Water Storage	Pump Stations	550-530 Inertic	Transmission & Distribution	Administrative Facilities	Field Ops.	Future Willamette Supply	Exclude from SDC	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
ASR Well 3 - Design & Equip	\$2,609,963	0	0	0	0	0	0	0	0	0	0	0	\$2,609,963
New Pump Station - Siting Study	0	0	0	0	0	50,000	0	0	0	0	0	0	50,000
New Pump Station - Design	0	0	0	0	0	255,000	0	0	0	0	0	0	255,000
New Pump Station - Construction Year 1 (67%)	0	0	0	0	0	963,000	0	0	0	0	0	0	963,000
New Pump Station - Construction Year 2 (33%)	0	0	0	0	0	481,000	0	0	0	0	0	0	481,000
New PRV from 550G to 410 Zone	105,000	0	0	0	0	0	0	0	0	0	0	0	105,000
Pipeline connecting 550G and 530 Zones - Design	0	0	0	0	0	0	197,000	0	0	0	0	0	197,000
Pipeline connecting 550G and 530 Zones - Constructi-	0	0	0	0	0	0	1,770,000	0	0	0	0	0	1,770,000
Annual Fire Flow Improvement Allocation	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline for installing PRV 550G-4	0	0	0	0	0	0	0	17,000	0	0	0	0	17,000
Pipeline in Main St. & Tygrad Ave.	0	0	0	0	0	0	0	101,000	0	0	0	0	101,000
Water Master Plan Update	0	0	0	0	0	0	0	0	0	0	0	0	0
Willamette Sherwood Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0
550-6270-75545 - ASR3	463,755	0	0	0	0	0	0	0	0	0	0	0	463,755
550-6270-75545 - ASR3	287,066	0	0	0	0	0	0	0	0	0	0	0	287,066
550-6270-755827 - 550 Zone 10Mtl	0	0	0	0	0	0	0	0	0	0	0	0	0
550-6270-755828 - 550 Zone Res#2	0	0	0	0	3,952,087	0	0	0	0	0	0	0	3,952,087
550-6270-755828 - 550 Zone Res#2	0	0	0	0	5,082,407	0	0	0	0	0	0	0	5,082,407
550-6270-755828 - 550 Zone Res#2	0	0	0	0	1,080,352	0	0	0	0	0	0	0	1,080,352
550-6270-755951 - Water Res Seismic Upgrade	0	0	0	0	0	0	0	0	0	0	0	0	0
550-6270-755970 -	0	0	0	0	52,270	0	0	0	0	0	0	0	52,270
550-6270-757012 - Mentor Tank Reice	0	0	0	0	39,132	0	0	0	0	0	0	7,052	46,184
Joint Water Supply Projects	0	0	89,299,160	0	0	0	0	0	0	0	0	0	89,299,160
Total	\$3,465,784	\$0	\$89,299,160	\$0	\$10,206,348	\$1,749,000	\$1,967,000	\$118,000	\$0	\$0	\$0	\$7,052	\$106,812,244

Table 9: Allocation of Groundwater/ ASR Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
ASR Well 3 – Design & Equip	\$2,609,963	1.90	0.00	MGD	0.00%	\$0	1	0.00
New PRV from 550G to 410 Zone	105,000	1.90	0.00	MGD	0.00%	0	1	0.00
550-6270-755545 - ASR3	463,755	0.00	0.00	MGD	0.00%	0	1	0.00
550-6270-755545 -	287,066	0.00	0.00	MGD	0.00%	0	1	0.00
Total	\$3,465,784					\$0		0.00

Table 10: Allocation of PWB Supply Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
Total	\$0					\$0		0.00

Table 11: Allocation of LO-Tigard Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
Joint Water Supply Projects	89,299,160	14.00	6.80	MGD	48.57%	43,373,878		6.80
Total	\$89,299,160					\$43,373,878		6.80

Table 12: Allocation of Bonita Pump Station Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
Total	\$0					\$0		0.00

Table 13: Allocation of Water Storage Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
550-6270-755827 - 550' Zone 10Mtl	3,952,087	3.00	3.00	MG	100.00%	3,952,087	1	3.00
550-6270-755828 - 550' Zone Res#2	5,082,407	3.00	3.00	MG	100.00%	5,082,407	1	0.00
550-6270-755828 -	1,080,352	3.00	3.00	MG	100.00%	1,080,352	1	0.00
550-6270-755951 - Water Res Seismic Upgrade	52,270	0.00	0.00	MG	0.00%	0		0.00
550-6270-757012 - Menlor Tank Rectrc	39,132	0.00	0.00	MG	0.00%	0		0.00
Total	\$10,206,248					\$10,114,846		3.00

Table 14: Allocation of Pump Stations Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
New Pump Station - Siting Study	50,000	3,800.00	0.00	gpm	0.00%	0	1	0.00
New Pump Station - Design	255,000	3,800.00	0.00	gpm	0.00%	0	1	0.00
New Pump Station - Construction Year 1 (67%)	963,000	3,800.00	0.00	gpm	0.00%	0	1	0.00
New Pump Station - Construction Year 2 (33%)	481,000	3,800.00	0.00	gpm	0.00%	0	1	0.00
Total	\$1,749,000					\$0		0.00

Table 15: Allocation of 550-530 Inertie Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
Pipeline connecting 550G and 530 Zones - Design	197,000	3,136.00	442.80	gpm	14.12%	27,816	I	442.80
Pipeline connecting 550G and 530 Zones - Constructio	1,770,000	3,136.00	442.80	gpm	14.12%	249,924	I	0.00
Total	\$1,967,000					\$277,740		442.80

Table 16: Allocation of Transmission & Distribution Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
Pipeline for installing PRV 550G-4	17,000	0.00	0.00	EDU	0.00%	0		0.00
Pipeline in Main St. & Tigard Ave.	101,000	0.00	0.00	EDU	0.00%	0		0.00
Total	\$118,000					\$0		0.00

Table 17: Allocation of Administrative Facilities Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
Total	\$0					\$0		0.00

Table 18: Allocation of Field Ops. Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
Total	\$0					\$0		0.00

Table 19: Allocation of Future Willamette Supply Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
Total	\$0					\$0		0.00

Table 20: Allocation of Exclude from SDC Expansion Costs

Description	Tigard Costs (\$)	Total Project Capacity	Expansion Capacity	Capacity Units	Percent Cost for Expansion Capacity	Cost of Expansion Capacity	Project Group	Added Capacity
550-6270-755970 -	7,052	0.00	0.00	0	0.00%	0		0.00
Total	\$7,052					\$0		0.00

Table 21: Calculation of Improvement Fee Totals		
System Component	Capacity Available for Growth	Improvement Fee Total
Groundwater/ ASR	0.0%	\$0
PWB Supply	0.0%	0
LO-Tigard	100.0%	43,373,878
Bonita Pump Station	0.0%	0
Water Storage	26.1%	10,114,846
Pump Stations	0.0%	0
550-530 Intertie	31.8%	277,740
Transmission & Distribution	0.0%	0
Administrative Facilities	0.0%	0
Field Ops.	0.0%	0
Future Willamette Supply	0.0%	0
Exclude from SDC	0.0%	0
Total		\$53,766,464

Table 22: System Capacities for System Improvements

System Component	Additional Capacity from Improvements	Units
Groundwater/ ASR	0.0	MGD
PWB Supply	0.0	MGD
LO-Tigard	6.8	MGD
Bonita Pump Station	0.0	MGD
Water Storage	3.0	MG
Pump Stations	0.0	gpm
550-530 Intertie	442.8	gpm
Transmission & Distribution	0.0	EDU
Administrative Facilities	0.0	EDU
Field Ops.	0.0	EDU
Future Willamette Supply	0.0	MGD
Exclude from SDC	0.0	0

Table 23: New Capacity Available for Growth

System Component	Requirements per EDU	Units	Additional EDUs Available
Groundwater/ ASR	0.0	gpd	0
PWB Supply	0.0	gpd	0
LO-Tigard	475.5	gpd	14,301
Bonita Pump Station	475.5	gpd	0
Water Storage	556.4	gallons	5,392
Pump Stations	473.7	gpd	0
550-530 Intertie	0.1	gpm	5,845
Transmission & Distribution	1.0	EDU	0
Administrative Facilities	1.0	EDU	0
Field Ops.	1.0	EDU	0
Future Willamette Supply	0.0	gpd	0
Exclude from SDC	0.0	0	0

Table 24: Improvement Fee per EDU	
System Component	Proposed Improvement SDC
Groundwater/ ASR	\$0
PWB Supply	0
LO-Tigard	3,033
Bonita Pump Station	0
Water Storage	490
Pump Stations	0
550-530 Intertie	15
Transmission & Distribution	0
Administrative Facilities	0
Field Ops.	0
Future Willamette Supply	0
Exclude from SDC	0
Total	\$3,538

Table 25: Proposed SDC by Meter or Service Line Size			
Meter or Service Line Size	Reimbursement	Improvement	Total
5/8 x 3/4 Inch (1 EDU)	\$2,936	\$3,538	\$6,474
1 Inch	7,831	9,438	17,269
1.5 Inch	23,479	28,298	51,777
2 Inch	38,126	45,950	84,076