

RESOLUTION NO. 922

A RESOLUTION AMENDING THE CITY OF STAYTON'S SYSTEM DEVELOPMENT CHARGES FOR WATER.

WHEREAS, Stayton Municipal Code (SMC) Chapter 13.12 provides for the establishment of Systems Development Charges (SDCs) upon completion of an analysis of the City's current investment in its water system and the projected capital improvements to be constructed and for the adoption of a methodology explaining how the SDCs are calculated;

WHEREAS, the SMC Chapter 13.12.220 (2) specifies that such charges shall be set by separate Resolution of the Stayton City Council following a public hearing;

WHEREAS, the Oregon Revised Statutes (ORS) provide the framework for establishing an SDC, and for notification and public hearing of the City of Stayton's intent to impose SDCs;

WHEREAS, the Stayton City Council adopted a Water Master Plan in 2006 which included updated capital improvement plans which affect SDCs;

WHEREAS, the Stayton City Council adopted a Water SDC Methodology in 2007 based on the capital improvement plans in the 2006 Water Master Plan;

WHEREAS, the 2007 Water SDC Methodology was based on 2005 estimates of improvement costs that have not been updated for inflation since that time;

WHEREAS, since 2007, the City has implemented many of the recommended water system improvements in the 2006 Water Master Plan;

WHEREAS, the City's Planning and Development Department and Public Works Department worked together to update the SDC for Transportation;

WHEREAS, the City staff issued its report *Water System Development Charge Update*, dated December 1, 2014, with the methodology;

WHEREAS, the City Council held a public hearing on December 1, 2014 on the proposed Water SDC methodology; and

WHEREAS, the Stayton City Council has determined that the methodology and rates hereinafter specified and established are just, reasonable and necessary.

NOW THEREFORE, BE IT RESOLVED that:

SECTION 1: AMENDMENT AND UPDATING OF SYSTEM DEVELOPMENT CHARGES

In accordance with SMC Chapter 13.12, this Resolution amends, updates, and establishes the methodology and provides the basis for the SDCs on those activities which create the demand for capital improvements used for Water.

SECTION 2: SCOPE

The SDCs established by this Resolution are separate from, and in addition to, any other applicable taxes, fees, assessments, or charges, including but not limited to SDCs, which may be required by the City of Stayton or represent a condition of a land use or development approval.

SECTION 3: METHODOGY

The methodology produced by the City of Stayton Planning and Development Department and Public Works Department to update the SDC is described in the attached reports and, by this reference, hereby made a part of this Resolution.

SECTION 4: FEE

The City amends and updates its SDCs as follows:

A **Water System Development Charge** shall be assessed based upon the size water meter(s) installed at the development except for multiple housing units connected to a shared water meter. For housing on a shared water meter, the Water SDC shall be the greater of the number of housing units multiplied by \$2,347 or the Water SDC for the meter size.

The Water SDC collected in accordance with Chapter 13.12 of the Stayton Municipal Code shall be:

Meter Size	Reimbursement Fee	Improvement Fee	Total Water SDC
3/4"	989	1,945	2,934
1"	1,651	3,248	4,899
1 1/2"	3,294	6,476	9,770
2"	5,272	10,367	15,639
3"	10,552	20,753	31,305
4"	16,486	32,423	48,909
6"	32,964	64,826	97,790
8"	52,744	103,726	156,470
Multiple Family Dwellings (per unit)	791	1,556	2,347

SECTION 5: EFFECTIVE DATE

This Resolution shall become effective upon its adoption by the Stayton City Council.

SECTION 6: REVIEW

This Resolution shall be reviewed annually during the month of June and the rates amended as appropriate for the next fiscal year. Consideration shall be given to the rate of inflation for construction as reported in the Engineering News Record, published by the McGraw-Hill companies, as the 20-City Average Construction Cost Index for the period June of the preceding year through May of the current year.

ADOPTED BY THE STAYTON CITY COUNCIL this First day of December 2014.

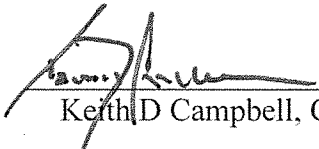
Signed: 12-1, 2014.

CITY OF STAYTON

By:


A. Scott Vigil, Mayor

Signed: 12-2, 2014.

Attest: 
Keith D Campbell, City Administrator

APPROVED AS TO FORM:


David A. Rhoten, City Attorney

City of Stayton

**WATER SYSTEM DEVELOPMENT CHARGE
UPDATE**

December 1, 2014 Draft for City Council Public Hearing

Prepared by the City of Stayton
Public Works Department and Planning & Development Department

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SUMMARY

The City of Stayton adopted its water systems development charge (Water SDC) in April 2007, following the adoption of the *City of Stayton Water Master Plan* (Keller Associates, January 2006). The 2007 SDC Update was prepared by Ray Bartlett, Economic and Financial Analysis, Inc.

The *Water Master Plan* recommends the City correct deficiencies in the existing water system and also recommends the City invest in improvements to the water supply, water treatment facilities, storage reservoirs and distribution system to serve the needs of the City that will result from future residential, commercial and industrial growth in Stayton's Urban Growth Boundary.

After completion and adoption of the *Water Master Plan*, the City obtained a \$5.3 million loan from the State of Oregon's Safe Drinking Water Revolving Loan Fund (SDWF) to pay for priority water treatment and distribution system projects. In addition to the SDWF loan funds, the City has used available water funds to make a total investment of more than \$6.8 million in water system improvements since 2007. In February 2012, Keller Associates updated the model of the Stayton's water distribution system and prepared a technical memorandum to update the recommended list of distribution system priorities.

The City adopted a Comprehensive Plan Update in 2013 that incorporated new population projections through 2030. At the time the *Water Master Plan* was developed in 2006, the City assumed Stayton would grow at a rate of 3.35% per year. Projects were identified and prioritized based on this assumed growth rate. Due to the Great Recession, housing growth in Oregon slowed dramatically. In 2009 Marion County prepared an updated coordinated 20-year population forecast for the unincorporated rural areas and the 20 cities in Marion County. The City and County planning departments revised Stayton's growth rate projections downward and adopted a 1.75% growth rate for the City of Stayton. This population forecast has been adopted in the Stayton Comprehensive Plan.

At the conclusion of the Comprehensive Plan update process, the City's Comprehensive Plan Update Committee recommended to the City Council that all of the City's systems development charges be reviewed to assure that they reflect recent investments in city infrastructure, properly account for planned improvements and adjust the timing of future projects to account for the new population projections.

The City has reassessed the timing for various water system improvements listed in the *Water Master Plan* (Plan) and the 2012 Technical Memorandum. Overall, these plans identify more than \$22 million in capital improvements, to replace existing facilities, and to expand water system facilities to build capacity for growth. This report uses the capital improvements list and other water system data to update the City's Water SDC.

The Water SDC is composed of a reimbursement fee and an improvement fee.

The water system operates with some excess capacity which is available to serve new growth. The value of this excess capacity, less depreciation, is used to calculate the reimbursement fee. Over the past five years, the Public Works and Planning Departments have updated the City's fixed asset list for the water system and entered all water distribution pipes into the City's Geographic Information System (GIS). The updated fixed asset list more accurately lists all water system facilities. The reimbursement fee assigns a value of the existing water system facilities to existing users; the value of the excess capacity is the basis of the reimbursement fee.

The improvement fee has also been updated. New projects from the 2012 Technical Report have been added and estimated project costs have been adjusted to account for inflation.

Table 1 shows the current and updated water SDC. Overall, the combined water SDC increases approximately 9.9%.

Table 1 – Current and Proposed Water SDC

Meter Size	Current	Proposed Water SDC Fee			Change	
	2007 Water SDC	Reimbursement Fee	Improvement Fee	Total	\$\$	%
¾	2,670	989	1,945	2,934	264	9.9%
1	4,459	1,651	3,248	4,899	440	9.9%
1 ½	8,891	3,294	6,476	9,770	879	9.9%
2	14,231	5,272	10,367	15,639	1,408	9.9%
3	28,289	10,552	20,753	31,305	3,016	9.9%
4	44,509	16,486	32,423	48,909	4,400	9.9%
6	88,991	32,964	64,826	97,790	8,799	9.9%
8	142,391	52,744	103,726	156,470	14,079	9.9%
Multi-Family Dwelling (per unit)	2,136	791	1,556	2,347	211	9.9%

INTRODUCTION

The City of Stayton staff updated the water system development charge methodology in May 2014. The City has reassessed the timing for various water system improvements listed in the *Water Master Plan* and a 2012 Technical Memorandum that updates the water distribution system priorities. Overall, these plans identify more than \$22 million in capital improvements, to replace existing facilities, and to expand water system facilities to build capacity for growth.

This report includes several elements:

1. An overview of Oregon's SDC laws and Stayton's SDC ordinance.
2. A review of water projects completed from 2007 to 2014.
3. Water Reimbursement Fee methodology
4. Water Improvement Fee methodology
5. An annual updating process to index the SDC to reflect construction cost inflation

OVERVIEW OF OREGON'S SDC LAW

Systems Development Charges are regulated by Oregon Revised Statutes Chapter 223. ORS 223 authorizes cities to assess systems development charges (SDC) on new real estate developments for water, wastewater, storm water, parks, and transportation.

ORS 223.299 provides definitions for the creation of systems development charges:

- (4)(a) "System development charge" means a reimbursement fee, an improvement fee or a combination thereof assessed or collected at the time of increased usage of a capital improvement or issuance of a development permit, building permit or connection to the capital improvement. "System development charge" includes that portion of a sewer or water system connection charge that is greater than the amount necessary to reimburse the local government for its average cost of inspecting and installing connections with water and sewer facilities.
- (4)(b) "System development charge" does not include any fees assessed or collected as part of a local improvement district or a charge in lieu of a local improvement district assessment, or the cost of complying with requirements or conditions imposed upon a land use decision, expedited land division or limited land use decision.

The SDC may consist of a reimbursement fee, an improvement fee, or both.

The reimbursement fee is a capital charge for *existing excess capacity*. A reimbursement fee "...means a fee for costs associated with capital improvements already constructed or under construction." [ORS 223.299(3)]. In general terms, this fee equals the capital value of those components of the water system that have excess capacity divided by their physical capacities.

The improvement fee is a capital charge for *needed future capacity* that the City must build to meet future demands. The planned improvements must be on a list of capital improvements that the City Council adopts and which the City Council by resolution may modify in the future. In general terms, this fee equals the expected cost of capital improvements needed to meet forecast demands divided by

the capacity of the planned improvements. Notice that this fee cannot include capital improvements that repair existing problems. If a specific capital improvement both fixes an existing problem and adds capacity, then the cost and capacity of the project is prorated so that the improvement fee includes only the capacity increasing portion.

The statute also establishes that certain system development charges and methodologies are prohibited (ORS 223.301). This section defines an employer as someone who hires employees and prohibits local governments from (a) charging its SDC on (a) the number of employees hired after a specified date, or (b) establishing a SDC "... methodology that assumes that costs are necessarily incurred from capital improvements when an employer hires an additional employee." The statute goes on to clarify that an SDC shall not be charges to "... include or incorporate any method or system under which the payment of the [reimbursement or improvement] fee or the amount of the fee is determined by the number of employees ..."

Also, the SDC statutes require the city to have a credit policy for the improvement fee (but not for the reimbursement fee). Usually, when a developer builds an improvement on the list of capital improvements used to create the improvement fee, then the city must credit the developer for the cost of excess capacity of the improvement. The credit reduces the amount of the systems development charges owing on the development.

To qualify for a credit, a qualifying capital improvement must meet three conditions:

First, the improvement must be on the list of capital improvements. If a project proposed for credit by a developer is not on the list then the project does NOT qualify for a credit. The City Council may amend the list of capital improvements by resolution.

Second, the city must require the public improvement to be built as a condition of development approval. That is, the city must specifically state to the developer (preferably in writing) that unless the developer builds the improvement, the city will deny the proposed development permits to build.

Third, the public improvement (or portions of it) must either be off-site of the proposed development or on-site and with more capacity than the development itself will utilize.

The SDC credit policy for qualified public improvements is already part of City's SDC ordinance. When all the SDC methodology reports are completed, the staff will prepare an informational sheet on how to calculate credits for each type of SDC adopted by the City.

The City may use the SDC revenues only for capital improvements. The revenue from the reimbursement fee may be used on any water-related capital improvement, including replacing existing components. The statutes restrict the City's use of revenue from the improvement fee to those improvements on the capital improvements list that increase capacity. The City cannot use improvement fee revenue simply to replace existing facilities such as a water line.

In the following analysis we discuss projects completed by the City since 2007, develop the methodology for the water reimbursement fee and present the list of capital improvements that becomes the basis of calculating the water improvement fee.

WATER SYSTEM IMPROVEMENTS COMPLETED 2007 TO 2014

A. Water Master Plan and Phase 1 Projects (2008 to 2011)

Keller Associates prepared the *City of Stayton Water Master Plan* in 2006. The plan includes several elements:

- Water Treatment and Supply System Evaluation and Recommendations
- Water Distribution System Evaluation and Recommendations
- Water Management and Conservation Plan
- Vulnerability Assessment
- Financing Options and SDC Analysis

At the time the master plan was developed, the City and Keller assumed the City would grow at a rate of 3.35% per year. Projects were identified and prioritized based on this assumed growth rate. Since then the City's Planning Department and Marion County have adopted a 1.75% annual growth rate for the City.

Following the completion of the *Water Master Plan*, the City sought financing to pay for priority 1 capital improvements to the water system. The City obtained a \$5.3 million loan from the Oregon Business Development Department under the Safe Drinking Water Fund (SDWF).

With the SDWF funds in hand, the staff initiated two small projects in 2008 to install a new water line on W. Burnett Street and stabilize an eroding river bank east of the water plant in Riverfront Park. In 2009, the City hired Black & Veatch (B&V) consulting engineers to serve as design engineers for the larger water treatment plant improvements. B&V completed a value engineering review of the proposed water treatment plant and E. Pine Street booster pump station improvements. The pre-design report recommended the City proceed with a major rehabilitation of the Water Treatment Plant and upgrade of the E. Pine Street Booster pump station. Project elements included:

- Reconstruction of Filter Bed #3
- Full electrical system replacement in the finish water pump station
- New sodium hypochlorite tanks and injection system to chlorinate the finished water
- Clearwell baffling
- Soda ash system upgrade
- Intake area renovation
- Weir box renovations
- Installation of variable frequency drive (VFD) pumps
- Piping upgrade outside of the finish pump station
- Installation of backup emergency generator
- Security improvements
- Booster pump upgrades at the E. Pine pump station

B&V engineers concluded the City did not have sufficient funds to complete all of the recommended priority 1 capital improvements listed in the *Water Master Plan*. In consultation with B&V, the City elected to omit the following elements from the project:

- Clearwell expansion
- Demolition of the Schedule M storage reservoir

Plans were then finalized and submitted to the Oregon Health Authority - Drinking Water Section for review and approval. OHA-DWS approved the plans and the City constructed the Phase 1 improvements at a cost of \$4.7 million (construction & engineering). Due to a competitive bidding environment, the City was able to use the balance of the loan funds to construct water main improvements near Santiam Hospital. This enhanced the transmission system and alleviated fire flow deficiencies near the hospital. All work was completed by the end of 2011.

B. Water Distribution System Projects Completed from 2008 to 2014:

From 2008 to 2014 the City also completed a significant number of water distribution system improvements using city water funds, systems development charges, and about \$200,000 from the \$5.3 million SDWF loan.

Most projects were identified as Priority 1 improvements in the *Water Master Plan*. In addition to these projects, private developers have constructed several water main improvements adjacent to subdivisions and private developments.

Table 2
Priority 1 - Water System Improvements
Completed by City -- 2008 to 2014

	<i>Project Name</i>	<i>Length</i>	<i>Type</i>	<i>Master Plan Priority</i>	<i>Actual Cost</i>	<i>Funding Source</i>	<i>Year Completed</i>
1	Birch (Washington – Locust)	600	Distribution	1	\$ 115,000	Water Fund	2014
2	E. Jefferson (10 th – 15 th) – 8"	1,273	Distribution	1	150,000	Water Fund	2013
3	Shallow Well Investigations		Supply	1	32,000	Water Fund	2012
4	W. Washington (1 st Ave Xing) – 8"	146	Distribution	1	25,000	Water Fund	2012
5	10 th Ave (E. Jeff to E. Pine) – 8"	1,393	Distribution	1	140,000	IOF & Water Fund	2012
6	E. Pine & 10 th (Mt. Jeff–Hosp)–12"	1,835	Distribution	1	233,500	SDC, SDWF & Water	2011
7	E. High (1 st – 2 nd) - 8"	275	Distribution		30,000	Water Fund	2011
8	Kindle / Hobson Oversizing – 10"	856	Distribution		17,600	SDC share	2009
9	10 th Ave (Extend & Activate) – 12"	1,064	Distribution	1	20,000	Water Fund	2010
10	4 th Ave (Ellwood – Jeff) – 4" & 6"	553	Distribution		30,000	Water Fund	2009
11	Ellwood, 6 th , E Hollister, Robidoux and Jefferson – 8"	4,238	Distribution	1	415,000	Water Fund	2009
12	W. Burnett – 8"	478	Distribution	1	88,000	SDWF	2008
13	Riverfront Bank Stabilization		Treatment	1	295,000	SDWF	2008
14	Water Treatment Plant and E. Pine St. Pump Station Upgrades		Treatment	1	4,700,000	SDWF	2010
15	Large Meter Replacements	7	Distribution		40,000	Water Fund	2008-2012
16	Annual Valve Replacements	2 /yr	Distribution		50,000	Water Fund	2008-2014
17	Annual Hydrant Replacements	2-3 /yr	Distribution		25,000	Water Fund	2008-2014
18	Annual Service Line Replacements	30/yr	Distribution		250,000	Water Fund	2008-2014
Total Investment					\$6,881,100		

C. Water System Master Plan Update - 2012 Technical Memorandum

With the 2011 completion of the Phase 1 Water Treatment Plant improvements, the City asked Keller Associates to update their water models and reassess the distribution system priorities. From 2009 to

2011, the Public Works staff worked with the Planning Department to update the GIS maps for the water system. This provided Keller Associates a much more accurate system map on which to perform their distribution system analysis.

In May 2012, Keller presented a report to the City Council on the status of the City's water distribution system. In the 2012 update, Keller identified several distribution system issues:

- Fire flow deficiencies
- Size, age, pipe type and condition of existing water lines
- Unaccounted for water loss

Keller's report recommended a list of system maintenance activities (Table 3) and prioritized distribution system improvements (Table 4).

Table 3
2012 Water System Maintenance Recommendations

	<i>Maintenance Activity</i>	<i>Where or What</i>	<i>Cost Estimate</i>	<i>Status or Schedule</i>
A	Leak Detection	West – every 5 years	\$ 10,000	Completed 2013
B	Leak Detection	East -- every 5 years	10,000	Will occur in 2014
C	Radio Read Water Meters	200 meters per year	33,000	300 in 2013 200 in 2014
D	Service Line Replacements	W. Washington	25,000	January 2014
E	Service Line Replacements	Northslope (Kent/Dawn)		Monthly program
F	Service Line Replacements	Westown Area		Monthly program
G	Valve Exercising	Annual		On-going – Annual

Table 4
2012 Priority 1 Recommendations
Water Main Improvements

	<i>Water Main Location</i>	<i>Size</i>	<i>Segment</i>	<i>Cost Estimate</i>	<i>Status</i>
A	W. Ida	12"	1st Ave to Evergreen	\$ 481,000 ¹	Not scheduled
B	E. Jefferson	8"	10 th to 15 th	125,000 ³	Completed 2012
C	Shaff Rd.	16"	1 st Ave to Fern	679,000 ¹	Not scheduled
D	Birch	8"	Locust to Washington	115,000 ³	Completed 2014
E	Douglas	8"	Locust to Washington	110,000 ²	Fall, 2014
F	7 th Loop	8"	Robidoux to E. Santiam	42,000 ¹	Not scheduled

¹ 2012 -- Keller Associates 2012 cost estimate

² 2013 -- Public works staff cost estimate

³ Actual cost

METHODOLOGY WATER SDC

REIMBURSEMENT FEE

Table 5 shows the cost basis for the reimbursement fee. It is a summary compiled from the fixed asset records of the water system which are contained in the appendix to this report. The costs are based on the actual cost paid by the City for the improvement, less the amount of any federal or state grants received by the City.

The depreciation period was determined by the City as a part of complying with Governmental Accounting Standard Board's rule No. 34 which requires a straight line annual depreciation method. The expected life of most of these assets is 75 years but range as low as 20 years. Table 4 shows the City has invested more than \$12 million to construct water system improvements over the life of the water system. This amount is the sum of major investments in the water treatment plant, water mains 10" in size or larger that create the basic transmission system, water storage reservoirs, pump stations, etc. Over the life of the water system, depreciation of the listed assets (improvements, buildings & facility improvements, infrastructure) has been \$3,073,398 of the original asset value. Land does not depreciate therefore its net book value equals its original purchase price. In summary, there is a net book value of \$9,829,963 left after depreciation is subtracted. Therefore, the cost basis for the reimbursement fee is \$9,829,963.

Table 5
Cost Basis for Reimbursement Fee

Asset Group	Original Cost¹	Total Depreciation	Net Book Value
Improvements	341,905	62,118	279,787
Buildings & Facility Improvements	4,853,401	361,476	4,491,925
Infrastructure	7,642,561	2,649,803	4,992,757
Land	65,494	0	65,494
Totals	12,837,867	3,073,398	9,829,963

¹ In 2014, the City staff updated the depreciation schedule to add projects completed from 2003 through 2014 and updated asset values where the City found more accurate historical information about individual project costs. Source: City of Stayton Fixed Asset Report and Public Works Contract records, See Appendix.

The current water system has a capacity to deliver 7.70 million gallons of water per day (mgd). This amount of water is the peak amount the water treatment plant can produce and comply with OHA-DWS regulatory requirements for production of potable drinking water for a community water system. In summer 2013, the peak daily demand for water was 7.000 mgd leaving 0.700 mgd for future development to use (see Table 6). It is this available excess capacity that the reimbursement fee is designed to recover from future developments.

Table 6
Current Water System Capacity

Stayton Water System	Gallons per Day (Millions)
Current Water Treatment Plant Capacity ¹	7.700
Current Usage ²	7.000
Excess Capacity	0.700

¹ Water Treatment Plant (WTP) Capacity from Black & Veatch pre-design report (2010).

² Peak day water use data is based on Keller Associates review of monthly water consumption and production data for the City of Stayton Water Treatment Plant 2012 and 2013. Keller estimates 2013 peak day consumption = 7,000 mgd.

The reimbursement fee is the cost of water assets divided by the capacity of the system. The cost is the net book value of the system, so the cost per gallon of capacity is \$1.2766 (\$9,289,963 / 7,300,000 gpd = \$1.2766).

Table 7 shows the calculation of the reimbursement fee for a single-family household on a ¾” water meter. Based on 2012 and 2013 City of Stayton water consumption records, the average person in Stayton used 287 gallons of water per day (gpd). According to the 2010 Census the average household size in Stayton is 2.7 persons per household; therefore, the average daily water demand for a single family household is 775 gpd. Table 7 calculates the water reimbursement fee by multiplying a single household's use of water by the cost of the water system assets per gallon of capacity. This equals the cost of assets used by the household's connection to the water system: \$989 = (\$1.2766 x 775 gpd) rounded to the nearest dollar.

Table 7
Calculation of Reimbursement Fee
Per Single Family Dwelling – ¾ inch water meter

#	Stayton Water System	Water System Costs per Gallon
1	Net Book Value of the Water System	9,829,963
2	Capacity Water Treatment Plant Capacity (gallons)	7,700,000
3	Costs per gallon capacity (Line 1 / Line 2)	\$1.2766
		2014 Reimbursement Fee Calculation
4	Per capita daily consumption (gpd)	287
5	Average number of persons per household	2.70
6	Single Family Home - Equivalent Residential Unit (ERU) Daily Water Consumption (gpd) (Line 4 x Line 5)	775
7	Reimbursement Fee (Line 3 x Line 7)	\$ 989

To apply this rate to other water users besides a single-family household on a ¾” water meter, the City uses a schedule of water meter sizes as a surrogate measure of peak daily demand and an average usage

for multiple family housing units. Table 8 shows the schedule. For example a 1½ -inch water meter is capable of delivering as much water as 3.33 ¾-inch water meters; therefore, the reimbursement fee for a 1½ -inch water meter is 3.33 times the amount for a ¾-inch water meter. The ¾-inch water meter equivalencies are derived from standards set for water meters by the American Water Works Association, the industry organization that establishes quality and performance standards for the manufacture of domestic water meters.¹

Table 8
Schedule of Reimbursement Fee
by Meter Size and Multi-Family Dwelling Units

Meter Size	Meter Equivalency	2014 Reimbursement Fee
¾"	1.00	989
1"	1.67	1,651
1 ½"	3.33	3,294
2"	5.33	5,272
3"	10.67	10,552
4"	16.67	16,486
6"	33.33	32,964
8"	53.33	52,744
Multiple Family Dwellings (per unit based on ¾" meter)	0.80	791

For multiple-family complexes, the meter size method does not apply equitably. Multiple family complexes may include any number of residential units in a single or multiple building complexes that results in 2 or more housing units sharing one or more meters. On average multiple family housing units use 80 percent as much water as a single-family household on a ¾-inch water meter.

As a result, the reimbursement fee for a multiple family complex will be the higher fee of two possible measures:

1. *Option 1: MF Reimbursement Fee = 80% of ¾" meter rate x # of units:* The number of housing units is multiplied by 80 percent of the reimbursement fee rate for a ¾-inch meter. A duplex will be charged a reimbursement fee of \$1,582. (2 units x 989 x 80%) = \$1,582. An apartment complex with 12 units will be charged \$9,494. (12 units x 989 x 80% = \$9,494).
2. *Option 2: MF Reimbursement Fee = Fee based on meter size for a master meter serving the entire complex.* If the developer installs a single 3" meter to serve to serve a 12-unit apartment complex, then the SDC reimbursement fee for the 3" meter size will be \$ 10,552. Since this is higher than the calculation under Option 1, the developer will be charged a \$10,552 reimbursement fee.

¹ American Water Works Association (AWWA) Standard for Cold-Water Meters Displacement Type, Bronze Main Case for meters up to 1-inch, and Turbine Type Class I vertical-Shaft and Low-Velocity Horizontal Type meters for meters 2-inches and larger, publications C700-90 and C710-96, 1991 and 1996.

IMPROVEMENT FEE

The improvement fee is based on capital improvements to be built to supply water to future growth in the community. The *Water Master Plan* and the 2012 technical memorandum recommend the City construct water system capital improvements to correct deficiencies in existing facilities and to add water supply, water treatment, storage and distribution system improvements to expand the water system capacity to serve anticipated growth within the Stayton Urban Growth Boundary.

In 2013, the City Council adopted a Comprehensive Plan Update that incorporates new population projections through 2030. At the time the *City of Stayton Water Master Plan* was developed in 2006, the City assumed Stayton would grow at a rate of 3.35% per year and the City's population would reach 19,200 when the Urban Growth Boundary was built out. Keller Associates estimated future water demands to serve the expected rapid population growth. Projects were developed and prioritized based on this assumed growth rate.

Due to the Great Recession, housing growth in Oregon slowed dramatically. In 2009 Marion County prepared an updated coordinated 20-year population forecast for the unincorporated rural areas and the 20 cities in Marion County. The City and County planning departments adopted a 1.75% growth rate for the City of Stayton. This population forecast has been adopted in the Stayton Comprehensive Plan. Stayton's population in July 2013 was 7,685 persons. Using the 1.75% annual growth rate, the City population is projected to reach 12,266 by 2035 and 15,212 in 2049 at UGB build out.

Since Stayton is not expected to grow as quickly as projected in 2006, the expected future water demand will be less than originally projected in the Water Master Plan. Therefore, not all of the projects listed in Water Master Plan will be needed in the next 20 years.

Table 9 summarizes the revised population projections and water demand projections.

Table 9
Growth of Population and Water Demand

1	2	3	4	5	6	7
	Population			Water Demand Million gallons per day (mgd)		
Year	Total Population ¹	Population Increase from 2013	Growth as a % of total population	Total (mgd) ²	Increase (mgd) ³	Mgd increase as a % of total capacity
Current Capacity				7.70		
2013	7,685					
2035	12,266	4,581	37.3%	9.33	1.63	17.5%
UGB Build out	15,212	7,527	49.5%	10.76	3.06	28.4%

¹ Population data from City of Stayton & Marion County Coordinated Population Projections (2009).

² Water Treatment Plant Capacity from Black & Veatch pre-design report for Water Treatment Plant improvements (2010). WTP capacity = 7.70 mgd.

³ Water Demand based on Keller review of 2013 water consumption data, projected water consumption plus unaccounted for water loss. See Water Master Plan, Tables 2-7 and 2-8..

Table 10 lists all of the recommended capital improvements listed in the *Water Master Plan* that have

not been constructed as of May 1, 2014. The estimated construction cost is \$22,021,331 in 2012 dollars. The seven numbered columns of Table 10 show the allocation of costs of each project to future growth. Of the \$22 million total cost, \$12,912,041 of the project costs are allocated to growth.

Table 10
Recommended Water System Capital Improvements
Stayton Water Master Plan

#	(2)	Project Description	Size	Year 2012 \$	Allocated to Growth	
					%	\$
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	P1	Priority 1 Pipeline Replacements and Upsizing				
	1.03	E. Kathy St. (6 th to 850 Block)	8"	84,928	0%	
	1.04	Maple Ave Area (Gardner, Maple, Fern)	8"	381,000	0%	
	1.05	2 nd Ave (Burnett to Virginia)	8"	71,389	0%	
	1.06	E. Santiam (7 th to Orchard)	8"	42,000	0%	
	1.09	Florence (3 rd to 4 th)	8"	116,930	75%	87,698
	1.16	Highland Dr Area (Mt. Jeff, Highland, Scenic View)	8"	208,012	37%	77,687
	1.17	Ida (3 rd to Evergreen)	10"	481,000	37%	179,640
	1.18	Cedar (west of 6 th Ave - 250')	8"	35,694	0%	
	1.19	Safeway Complex (Loop to Fir St.)	8"	89,851	0%	
	1.20	Shaff Rd. (Stayton Middle School to Douglas)	16"	679,000	75%	509,250
5		Repaint Interior & Exterior Regis & Schedule M Tanks		166,779	0%	
8		Shallow Well Field/Infiltration Gallery		881,283	28%	246,759
16		Plant Maintenance / Shop (% share)		441,872	49%	218,641
20	P2	Priority 2 Pipeline Replacements & Upsizing				
	2.01	Water St (reconnect services and abandon 2" main)	8"	30,771	0%	
	2.03	Marion Area (1 st -2 nd , 4 th -7 th , north to Burnett & Virginia)	8"	232,629	0%	
	2.04	Washington St. (1 st - 3 rd)	8"	114,468	0%	
	2.05	Robidoux Area (Jefferson - Fir, 3 rd to 6 th)	8"	465,258	0%	
	2.08	Douglas (Locust to Washington)	8"	143,000	0%	
	2.09	Hollister Area (1 st - 3 rd , Hollister to Cedar)	8"	151,394	0%	
	2.10	Water Service Replacements (Northslope & Westown)		514,492	0%	
	2.11	6 th Ave (Marion to Virginia)	8"	111,000	0%	
	2.12	Scenic View (E. Santiam to E. Pine)	8"	164,000	37%	61,249
	2.13	10 th Ave Loop (Housing Authority to Orchard)	8"	42,000	37%	15,686
22		Secure Land for Tank/Well Site (Mill Creek Basin)		184,626	100%	184,626
23		Regis Booster Station		224,013	28%	62,724
24		Install Radio-Read Base System		61,542	37%	22,984
25		Salem Intertie		71,389	28%	19,989
26		City Shop (30%)		302,787	49%	149,821
	P3	Priority 3 Pipeline Replacements & Upsizing				
	3.01	Douglas Ave & W. Kathy St. (Fern Ridge to Regis)	8"	241,000	0%	
	3.02	West Maple Ave	8"	214,000	0%	
	3.03	High St. (1 st to Cherry, Loop to Ida St.)	8"	231,000	0%	
	3.04	W. Ida (Holly to Wilco, reconnect services)	8"	827,000	0%	
	3.05	Mt. Jefferson St.	8"	160,000	75%	120,000

#	(2)	Project Description	Size	Year 2012 \$	Allocated to Growth	
					%	\$
(1)	(2)	(3)	(4)	(5)	(6)	(7)
30		Clearwell (Additional Capacity)		627,730	100%	627,730
33		Shallow Well Field Expansion		97,237	100%	97,237
34		Raw Water Weir Box Expansion		36,556	100%	36,556
35		Soda Ash System Expansion		35,694	100%	35,694
36		New Slow Sand Filter		923,132	100%	923,132
39		Abandon Regis Water Tower		51,695	0%	
40		New 5.0 MG Storage Reservoir		3,522,670	100%	3,522,670
	P4	Priority 4 Pipeline Replacements & Upsizing			0%	
37	4.01	Fern Ridge Road	16"	243,707	100%	243,707
38	4.02	16" Transmission Loop – Pine St. Resvr to Fern Ridge	16"	958,826	100%	958,826
41	4.03	3 rd Ave (WTP to Virginia – Replace 12" DI - upsize cost)	12"	45,541	100%	45,541
	P5	Priority 5 Pipeline Replacements & Upsizing			0%	
42	5.01	Upsize Costs for Water Mains in UGB Area	16"	1,218,534	100%	1,218,534
43	5.02	Shaff Rd. (Stayton Middle School to Wilco Rd.)	16"	835,742	100%	835,742
44	5.03	Wilco Rd. (s. of Golf Club Rd.)	16"	162,471	100%	162,471
45		E. Pine Street Booster Station to serve higher elevation		160,009	100%	160,009
46		Mill Creek Booster Station		525,570	100%	525,570
47		Construct Deep Well Backup Supply		1,640,713	100%	1,640,713
49		New Independent Intake Facility on N. Santiam River and Pipeline to the Water Treatment Plant		2,769,395	28%	775,431
TOTALS				22,021,331	60%	12,912,041

Each project was evaluated to determine whether or not it is needed to correct an existing deficiency or if the project is partially or entirely needed to serve new growth. Columns 6 and 7 show the allocation of each project's cost to growth (and, implicitly to current users).

1. Projects with no benefit for future growth: Many of the projects in Table 10 are not needed to serve future growth. These projects must be built regardless of growth to resolve existing service problems. All of these costs will be borne by rate payers (or tax payers, if the City issues general obligation bonds to pay for them). For example, the Priority 1 water main projects 1.03, 1.04, 1.05 and 1.06 are needed to correct existing system deficiencies by replacing undersized water lines in existing residential neighborhoods. Projects such as these have no benefit for future development (0% in Column 6) and therefore have no amount included in Column 7. None of these projects' costs are included in the calculation of the water improvement fee.
2. Projects with proportional benefit to existing users and future growth: Some projects in Table 10 will benefit some existing users, but are also needed to serve future growth. Projects that partially benefit current users and future growth are pro-rated based on the proportionate benefit to each. The percentage assigned to each project is based on the proportional benefit needed to serve new growth. Several factors were considered: (1) Does the project increase the capacity of the overall water system and enable the City to meet anticipated water demands? and/or (2) Does the distribution system project serve a partially developed or a vacant, developable area within the Stayton UGB? Based on the analysis, the

percentages of projects that benefit development are 28%, 37%, 49% or 75%.

- 28% Projects: Projects No. 8, 25 and 49 are assigned a 28% allocation to the improvement fee. These planned improvements to the Water Treatment Plant and Regis Pump Station will benefit all current and future users of the water system. The projects will provide a proportional increase in the ability to meet future water demands upon build out of the UGB. The 28% allocation equals the estimated growth in water demand between 2014 and the build-out of the UGB as shown in Table 9.
 - 37% Projects: Projects No. 1.16, 1.17, 2.12, 2.13, and 24 are assigned a 37% allocation to the improvement fee. These water main projects will serve both existing users and new residential growth areas that are expected to occur on vacant properties. The projects are needed during the next 20 years (by 2035). Table 9 shows Stayton's population is expected to grow 37% by 2035. For these projects, the City concludes there is a correlation between project costs, future water demand and allocation of a proportionate share of the project cost by population growth by 2035.
 - 49% Projects: Projects No. 16 and 26 are building improvement projects to add a new vehicle storage/maintenance building at the Water Treatment Plant and a redevelopment or relocation of the Public Works Shop building on 1st Avenue, when the City outgrows this facility. The two buildings may not be needed until after 2035. These two projects are not based on water demand, but are more appropriately based on population growth since they will serve all current and future users within the UGB. Therefore, allocation of costs based on the 49% population growth anticipated at the time of UGB build out is appropriate.
 - 75% Projects: Projects No. 1.09, 1.20 and 3.05 are water main projects assigned a 75% allocation to the improvement fee. The staff concluded the 75% share is appropriate based on the high correlation of the project to new development. Although these water main projects will serve some existing users, they are primarily needed to serve new residential growth areas inside the UGB. The staff anticipates these projects will be needed within the next 20 years before 2035.
3. Projects with a 100% benefit to future growth: Some projects in Table 10 are needed entirely to serve new development areas of the City or are needed to expand the capacity of the water supply, water treatment or storage reservoirs beyond the existing system capacity. Projects Nos. 30, 33, 34, 35 and 36 are recommended to expand the water supply or water treatment plant exclusively to serve water demands generated by new growth. Project No. 42 estimates the cost of upsizing water mains in the UGB where a developer is directed by the City to oversize the water main and install a 12" or 16" main concurrently with the development project. The water SDC is used to reimburse the developer for 100% of oversizing the pipe. Projects 37, 38, 43 and 44 are new 16" water mains at the north and east end of the UGB. They have been assigned a 100% share of the project cost because the existing water mains in the area are adequate to serve

the existing development, but the larger mains are needed exclusively to serve future growth. In all of these examples, 100% of the project costs are eligible for inclusion in the calculation of the water improvement fee.

4. Future Projects (Not included in the Improvement Fee Calculation): The Comprehensive Plan Update Committee recommends the City Council delete several projects listed in Table 10 from the water improvement fee calculations. The Committee concluded these projects are not needed in the next 20 years (by 2035) and may not be needed to meet projected water demands for the build-out population of 15,212 persons in the UGB. Projects 23, 34, 35, 36, 40, 45, 46, 47 and 49 are not included in the water improvement fee calculations. During the next Water Master Plan update these projects should be re-evaluated to determine if they are needed, should be dropped from the plan or should be modified. At that time, any needed projects should be included in the calculation of an updated water improvement fee.

Based on this analysis, Table 11 identifies \$12,183,579 in priority water system improvement projects. Of this amount, \$5,229,543 of the project costs is assigned to growth and is used in the calculation for the water improvement fee.

Projects are assigned to either Column 6 or Column 7 in order to calculate the water improvement fee. Projects placed in Column 6 are needed prior to 2035 to serve the projected population of 12,212 persons and/or are needed to increase water system capacity by 1.63 mgd. Two water supply and water treatment plant improvement projects (Projects Nos. 8 and 30) are needed to increase the water system capacity to meet projected water demands in 2035. Several water main improvements (Project Nos. 1.09, 1.16, 1.17, 1.20, 2.12 & 2.13 and Project 24 – radio read base station) are needed prior to 2035 to serve growth areas inside the City or in the UGB in close proximity to the 2014 city limits.

In order to calculate the improvement fee, the share of the individual project that is allocated to growth is divided by the capacity it will provide (1.63 mgd) to derive a cost per gallon. For example: Project 8 – Shallow Well/Infiltration Gallery is estimated to cost \$881,283 with 28% of the project cost (\$246,759) assigned to growth. The cost of the project that is allocated to growth (\$246,759) is divided by the capacity it will provide (1,630,000 gpd) to derive the cost per gallon.

Project 8: Shallow Well/Infiltration Gallery $\$246,759 / 1,630,000$ gallons = \$0.151 per gallon.

Projects placed in Column 7 are needed prior to UGB build-out to serve the projected population of 15,212 and/or are needed to increase water system demand by 3.06 mgd (see Table 9). The same methodology is used to calculate the water improvement fee for these projects.

For example: Project 5.03 – Wilco Rd. 16" water main is estimated to cost \$162,741 with 100% of the project cost assigned to growth. The cost of the project that is allocated to growth is divided by the capacity it will provide (3,060,000 gpd) to derive the cost per gallon.

Project 5.03: Wilco Rd. 16" main $\$162,741 / 3,060,000$ gallons = \$0.053 per gallon.

Table 11
 Planned Water System Capital Improvements
 Cost Basis for Improvement Fee

#	Project Description (1)	Size (2)	Year 2012 \$ (3)	% (4)	Allocated to Growth \$ (5)	Increase in System Capacity 2035 mgd (6)	3.063 mgd 2049 (7)	SDC Totals (8)
1	Priority 1 Pipeline Replacements and Upsizing							
1.09	Florence (3 rd to 4 th)	8"	116,930	75%	87,698	0.054		0.054
1.16	Highland Dr Area (Mt. Jeff, Highland, Scenic View)	8"	208,012	37%	77,687	0.048		0.048
1.17	Ida (3 rd to Evergreen)	10"	481,000	37%	179,640	0.110		0.110
1.20	Shaff Rd. (Stayton Middle School to Douglas)	16"	679,000	75%	509,250	0.312		0.312
8	Shallow Well Field/Infiltration Gallery		881,283	28%	246,759	0.151		0.151
16	Plant Maintenance / Shop (% share)		441,872	49%	218,641		0.071	0.071
2.0	Priority 2 Pipeline Replacements & Upsizing							
2.12	Scenic View (E. Santiam to E. Pine)	8"	164,000	37%	61,249	0.038		0.038
2.13	10 th Ave Loop (Housing Authority to Orchard)	8"	42,000	37%	15,686	0.010		0.010
22	Secure Land for Tank/Well Site (Mill Creek Basin Area)		184,626	100%	184,626		0.060	0.060
24	Install Radio-Read Base System		61,542	37%	22,984	0.014		
25	Salem Intertie		71,389	28%	35,324		0.007	0.007
26	City Shop (30%)		302,787	49%	149,821		0.049	0.049
3.0	Priority 3 Pipeline Replacements & Upsizing							
3.05	Mt. Jefferson St.	8"	160,000	75%	120,000		0.039	0.039
30	Clearwell (Additional Capacity)		627,730	100%	627,730	0.385		0.385
33	Shallow Well Field Expansion		97,237	100%	97,237		0.032	0.032
4.0	Priority 4 Pipeline Replacements & Upsizing							
4.01	Fern Ridge Road	16"	243,707	100%	243,707		0.080	0.080
4.02	16" Transmission Loop – Pine St. Resrv to Fern Ridge	16"	958,826	100%	958,826		0.313	0.313
4.03	3 rd Ave (WTP to Virginia – Replace 12" DI - upsize cost)	12"	45,541	100%	45,541		0.015	0.015
5.0	Priority 5 Pipeline Replacements & Upsizing							
5.01	Upsize Costs for Water Mains in UGB Area	16"	1,218,534	100%	1,218,534		0.398	0.398
5.02	Shaff Rd. (Stayton Middle School to Wilco Rd.)	16"	835,742	100%	835,742		0.273	0.273
5.03	Wilco Rd. (s. of Golf Club Rd.)	16"	162,471	100%	162,471		0.053	0.053
	TOTALS		12,183,579	43%	5,229,543	1.121	1.389	2.510

The sum of the costs per gallon in columns 6 and 7 are shown in column 8, and the sum of the project costs per gallon in column 8 amounts to the improvement fee per gallon of capacity- \$2.510. The costs per gallon are rounded to 3 places to the right of the decimal.

Using the same household water usage statistics as was used for the reimbursement fee, the improvement fee for a new single-family housing unit using a ¾-inch water meter will be \$1,945, (\$2.510/gallon x 775 gpd/household = \$1,945). Also, using the equivalent ¾-inch meter equivalents from Table 8 above and the ratio for multiple-family water usage; we derive the schedule of improvement fees by meter size and for multiple-family developments shown in Table 12.

Table 12
Schedule of Improvement Fee
by Meter Size and Multi-Family Dwelling Units

Meter Size	Meter Equivalency	Proposed 2014 Improvement Fee
¾"	1.00	1,945
1"	1.67	3,248
1 ½"	3.33	6,476
2"	5.33	10,367
3"	10.67	20,753
4"	16.67	32,423
6"	33.33	64,826
8"	53.33	103,726
Multiple Family Dwellings (per unit)	0.80	1,556

WATER SYSTEM DEVELOPMENT CHARGE

The water system development charge consists of a reimbursement fee and an improvement fee as shown in Table 11. The total Water SDC is \$2,934 for a ¾-inch water meter.

Table 13
Proposed Water System Development Charge

Meter Size	Reimbursement Fee	Improvement Fee	Total Water SDC
¾"	989	1,945	2,934
1"	1,651	3,248	4,899
1 ½"	3,294	6,476	9,770
2"	5,272	10,367	15,639
3"	10,552	20,753	31,305
4"	16,486	32,423	48,909
6"	32,964	64,826	97,790
8"	52,744	103,726	156,470
Multiple Family Dwellings (per unit)	791	1,556	2,347

ANNUAL UPDATES FOR INFLATION

ORS 223.304 (7) provides that,

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

For the purposes of periodically adjusting the water SDC, the City will determine annually the increase in the 20-City Average Construction Cost Index (CCI) published in the weekly periodical *ENR* published by McGraw Hill, Inc. This publisher's construction (and building) cost index is widely accepted in the engineering and construction industry. *ENR* updates the CCI monthly and provides annual summaries in the July edition.

The formula for updating the SDC each year is as follows:

$$\text{SDC current year} = [(\text{SDC last year}) \times (\text{CCI current year})] / \text{CCI last year}$$

Variables:

CCI current year = Construction Cost Index for the current year

CCI last year = Construction Cost Index for the last year the SDCs were updated

SDC current year = the SDC updated by the CCI

SDC last year = the SDC to be updated

It is recommended that the City Council review the SDC charges annually and make adjustments effective on July 1st.

An initial Council review may take place between January and March after the ENR index is available for the prior calendar year. In reviewing the SDC, the City Council may consider changes to the proposed project list, the ENR index change for the prior year, economic indicators for the Mid-Willamette Valley, current economic conditions in Stayton and the potential impact a change in the SDC fees may have on proposed development in the City. The January to March review also provides sufficient time to notify interested parties 90 days prior to the adoption of a revised SDC methodology as required by ORS 223.