

RESOLUTION NO. 609

A RESOLUTION ESTABLISHING A SYSTEMS DEVELOPMENT CHARGE FOR WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL.

WHEREAS, the City of Stayton Systems Development Charge Ordinance, Ordinance No. 691, provides for the setting of systems development charges upon completion of an analysis of projected capital improvements to be constructed and adoption of a methodology explaining how the systems development fees were calculated; and

WHEREAS, Stayton City Code, Section 13.12.220, enacted by Ordinance No. 691, specifies that such charges shall be set by separate resolution of the Stayton City Council; and

WHEREAS, this Council did in 1997 authorize Raymond J. Bartlett, Economic & Financial Analysis, to analyze the cost of building, maintaining, replacing and expanding the Wastewater System, and to recommend an updated Systems Development Charge; and

WHEREAS, this Council has considered the proposed Wastewater Systems Development Charges at the Council meeting of October 6, 1997 and has held a public hearing on November 10, 1997, and has duly considered all comments and suggestions;

NOW, THEREFORE, THE STAYTON CITY COUNCIL HEREBY RESOLVES AS FOLLOWS:

SECTION 1: IMPOSITION OF SYSTEMS DEVELOPMENT CHARGES.

This resolution shall establish the methodology and be the basis for imposing a systems development charge (SDC) on those activities which create the demand for capital improvements used for the wastewater collection, treatment and disposal within the City of Stayton.

SECTION 2. SCOPE

The charge imposed by this resolution is separate from and in addition to any applicable taxes, fees, assessments, charges, including but not limited to systems development charges, which may be required by the City of Stayton or imposed as a condition of a land use or development approval.

SECTION 3: METHODOLOGY

The methodology is described in the attached report and is by this reference hereby made a part of this resolution.

SECTION 4. FEE

The sewer SDC collected in accordance with Section 13.12.240 of the Stayton City Code shall be:

**SYSTEMS DEVELOPMENT CHARGES FOR WASTEWATER
BY METER SIZE AND BY NUMBER OF HOUSING UNITS:**

Meter Size (inches)	Safe Maximum Oprtg. Capacity (gpm)	Equivalent Number 3/4" meters	SDC
3/4"	30	1.00	\$3,130
1"	50	1.67	\$5,220
1 1/2"	100	3.33	\$10,430
2"	160	5.33	\$16,690
3"	320	10.67	\$33,390
4"	500	16.67	\$52,170
6"	1000	33.33	\$104,330
8"	1600	53.33	\$166,930
Multi-Family Housing Unit			\$2,500/unit

Source of Equivalencies: American Water Works Association (AWWA) numbers AWWA C702-86 for meters under 3-inches in diameter and AWWA C702-86 for Turbine meters 3-inches and larger in diameter (compound-type meters). These publications set the American National Standard for cold-water meter safe maximum operating capacities.

SECTION 5. EFFECTIVE DATE

This resolution shall be in full force and effect on December 1, 1997.

SECTION 6. REVIEW

This resolution shall be reviewed on or before December 1, 2000 and take into consideration the rate of inflation for Construction as reported in the *Engineering News Record*, published by the McGraw-Hill companies, as the Construction Cost Index (1967=1) for the period November of the preceding year to October of the current year.

PASSED BY THE COMMON COUNCIL this 17 day of November, 1997.

Date: Nov 24, 1997 By: Daphne E. Girod
 DAPHNE E. GIROD, Mayor

ATTEST
 Date: 11.24.97 By: [Signature]
 THOMAS L. BARTHEL, City Administrator

1997 UPDATE
WASTEWATER SYSTEMS DEVELOPMENT CHARGE
CITY OF STAYTON, OREGON

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November 10, 1997

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INTRODUCTION & SUMMARY

The City of Stayton wants to update its wastewater systems development charge. It retained Economic & Financial Analysis (EFA) to evaluate the capital costs of the wastewater system and its capacity to update the SDC. In addition to EFA, the City's consulting engineer and City staff are assisting with the update.

This report contains an overview of the SDC law of Oregon, a review of the current SDC, development of a reimbursement fee and proposed update of the existing improvement fee, and two options to assess the SDC on non-residential development.

The proposed changes to the SDC will result in an increase for a single-family residence from \$2,000 to \$3,130. The rate for a plumbing fixture unit will increase from \$125 to \$196. Also, for non-residential developments, the City will have to choose either to keep using the plumbing-fixture-unit method of applying the SDC or change to a water-meter size method.

1. OVERVIEW OF OREGON'S SYSTEMS DEVELOPMENT CHARGE LAW

In 1989 the Oregon Legislature amended Oregon Revised Statutes Chapter 223 (ORS 223) which authorizes cities to assess Systems Development Charges (SDC) on new real estate developments for drinking water, wastewater, storm water, parks, and transportation. And, except for the 1997 Legislature, every Legislature since 1989 has amended this legislation.

The amended ORS defines the SDC as:

“(4)(a) . . . 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. Systems development charge includes that portion of a sewer or water system connection charge that is greater than the amount necessary to reimburse the governmental unit for its average cost of inspecting and installing connections with water and sewer facilities.”

“(b) “Systems Development Charge” does not include any fees assessed or collected as part of a local improvement district assessment, or the cost of complying with requirements or conditions imposed upon a land use decision 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 223.314 (3)]. It represents the average cost of excess capacity in the water system. In rough terms, this fee equals the capital value of the water (or wastewater) system divided by the physical capacity of the water (or wastewater) system. In the water system, physical capacity is measured by the cubic feet (or gallons) of water the water system is capable of supplying on a peak summer day.

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 is adopted by the City Council and which the City Council by resolution may modify over time. In rough terms, this fee equals the expected cost of capital improvements needed to meet forecast demands divided by the amount of water capacity the improvements will supply on a peak summer day. Notice that this fee cannot include capital improvements that repair existing problems. And if a specific capital improvement both fixes an existing problem and adds capacity, then the cost and capacity of the project are prorated so that the improvement fee includes only the capacity increasing portion.

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 making the improvement. The credit reduces the amount of the improvement fee owing on the development.

To qualify for a credit, a 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 but with excess capacity.

The City can use the SDC revenues only for capital improvements. The revenue from the reimbursement fee may be used on any wastewater-related capital improvement, including replacing existing capital. The statutes restrict the City's use of revenue from the improvement fee to those improvements on the capital improvements list. The City cannot use improvement-fee revenue to replace existing capital.

Finally, the SDC is distinguished from the wastewater connection charges. The wastewater connection charge includes only the cost of connecting or inspecting the development to the sewer line in the street. The SDC (reimbursement and improvement fees) pay for capital facilities that are shared by all users, such as the wastewater treatment plant (WWTP), major pump stations, and major collector and transmission sewer lines. The SDC specifically excludes those elements of the system that exclusively benefit only one property, such as the sewer line connection.

2. CURRENT SYSTEMS DEVELOPMENT CHARGE

Stayton adopted a wastewater SDC improvement fee on July 3, 1991 and updated it each year thereafter until the current fee was adopted on August 18, 1994. The fee was initially set at \$300 for a single-family residence (or equivalent thereof) and increased it to \$2,000 per residence. The SDC included only the improvement fee and no reimbursement fee.

This method is applied by means of the number of plumbing fixture units, as summarized in Table 1. A count of plumbing fixtures (e.g., toilets, sinks) served by the single sewer connection is multiplied by the number of fixture units to determine how many fixture units to charge a particular development. For example, a bathtub in a private home is the equivalent of 2 plumbing fixture units; a bathtub in a public or commercial building is the equivalent of 4 fixture units (Exhibit B of Resolution 537). Residences are assumed to have 16 fixture units regardless of size or type (single or multi family). Using a residence as a base, the fee per fixture unit increased from \$18.75 ($\$300 \div 16$ fixture units)¹ in 1991 to \$125 ($\$2,000 \div 16$ fixture units) currently. This fixture rate is applied to non-residential developments using a table showing number of equivalent fixtures.

The City assessed the SDC on any new construction and to additions or alterations of existing non-residential developments. It did not apply the SDC to additions or alterations of residential developments.

The entire method and data to support the method was derived from the City's December 1980 *Master Utilities Plan* by the James M. Montgomery Consulting Engineers Company. Since then, the City has adopted a new sewer facilities plan (1992) and spent over \$10 million to update and expand the wastewater treatment plant (WWTP).

¹Though the City's Ordinance 468 charged only \$18.00 per fixture.

Table 1: Current Wastewater Systems Development Charge

	Systems Development Charge Fees		
	Reimbursement	Improvement	Total
New Residential Structure	\$0	\$2,000	\$2,000
Additions or alterations, residential	\$0	\$0	\$0
New Non-Residential Structure by number of plumbing fixture units			
1 through 20 units	\$0	\$2,000	\$2,000
per fixture units > 20 units	\$0	\$125	\$125
Additions or alterations, non-residential			
per fixture units	\$0	\$125	\$125

Source: City of Stayton, Resolution No. 537. Also, see Exhibit B in Resolution for equivalent fixture units.

With the recently completed WWTP improvements the City can now adopt a reimbursement fee. The updated facilities plan provides the list of capital improvements to update the current improvement fee. Finally, the City can choose one of two methods to apply the SDC to non-residential developments: the current plumbing-fixture-units method, or alternatively a water-meter-size method.

3. PROPOSED SYSTEMS DEVELOPMENT CHARGE

a. Proposed Reimbursement Fee

EFA referred to the City's preliminary audit for fiscal year 1997 to determine the book value of the wastewater system. Table 2 shows the calculations.

At the end of fiscal year 1997 (June 30, 1997) the entire sewer system had a book value of \$11,829,039. This value is the accumulated sum of capital improvements made since the sewer system was built minus the annual depreciation minus facilities taken out of service. All of the values are at their original cost, and include the recent cost of expanding the WWTP.

To determine the SDC-eligible portion of the total book value, EFA divided this cost among four categories (the column headings): the wastewater treatment plant (WWTP), the sewer lines, the Fern Ridge pump station (PS), and grants. The value of the treatment plant is based on the most recent expansion. Since the sewer system was mostly depreciated prior to the latest WWTP expansion, most of the value is in the WWTP. The remodeled WWTP serves both existing development and provides excess capacity for future development, therefore, we include all of its value in the calculation of the reimbursement fee.

After deducting all of the known book value for the WWTP, Fern Ridge Pump Station, and the grant (that was spent on the WWTP), the residual value represents the depreciated value of the collection system and probably a small portion of the old treatment plant. We assume that a significant portion of the collection system was built by developers who later contributed the sewer lines to the City. Since the city's rate payers did not pay for these capital assets, we exclude its value in the calculation of the reimbursement fee.

The Fern Ridge Pump Station was recently upgraded to a capacity of 300,000 gallons per day at a cost of \$286,000. This improvement both replaces an old pump station and increases its capacity for growth, therefore, we include its value in the calculation of the reimbursement fee.

The City received two grants to make the most recent improvements to the sewer system: a \$417,332 grant from the State of Oregon and a \$1,000,000 grant from the US Department of Agriculture. Since rate payers did not have to pay for this capital, we excluded its value from the calculation of the reimbursement fee.

The WWTP has a dry-weather capacity of 1,370,000 gallons per day. The capital cost per gallon of capacity is therefore \$7.30; \$6.20 per gallon for the new treatment plant, \$0.89 per gallon for the existing remaining elements of the treatment plant and collection system, and \$0.21 per gallon for the improvements to the Fern Ridge pump station. The average household contributes about 120 gallons per capita of sewage flow and inflow/infiltration to the sewer lines serving the household. Since the average household size is 2.5 persons per household, each housing unit requires 300 gallons of treatment capacity per day. So the capital expenditure in the WWTP to treat the households sewage is \$2,190, i.e., 300 gallons/day x \$7.30 per gallon/day of capacity.

Also, we determined separate values for the WWTP and the collection system so that the treatment cost portion of the SDC can be charged equally to developments in Stayton and in Sublimity, who share the WWTP.

Table 2: Calculation of the Reimbursement Fee for a Single-family Residence

	Wastewater Treatment Plant					Total
	New	Existing	Sewer Lines	Fern Ridge PS	Grants	
Current Book Value of Existing Plant and Land	\$8,500,711	\$1,224,833	\$400,000	\$286,163	\$1,417,332	\$11,829,039
Design Capacity, Average Dry Weather Flow (gallons)	1,370,000	1,370,000	NA	1,370,000	NA	
Cost per gallon	\$6.20	\$0.89		\$0.21	NA	\$7.30
Average Household Usage/day, gallons dry weather	300	300		300	NA	
Total Cost per gallon of capacity per day & SDC, Reimbursement fee for a single-family residence on a 3/4" meter or 16 plumbing fixtures	\$1,860	\$270		\$63		\$2,193
SDC, Reimbursement Fee for a single-family residence on a 3/4" meter	\$1,860	\$270		\$63		\$2,190

Source: Design capacity from the Final Design Criteria contained in the Construction Documents for improvements to the WWTP and the Fern Ridge Pump Station. Cost data are final construction costs and grants tabulated by the City of Stayton through fiscal year 1997.

b. Proposed Update of the Improvement Fee

The improvement fee is based on the list of capital improvements shown in Table 3. These improvements will be necessary to increase the system capacity from 1,370,000 gallons per day to 1,900,000 gallons per day. EFA eliminated planned capital improvements that fix existing problems.

The improvement fee is calculated similar to the reimbursement fee. Generally, the improvement fee per gallon of capacity equals the expected cost of the capital improvement divided by its design capacity. The fee per gallon multiplied by the average daily dry-weather flow from a residence produces the improvement fee for a new residence.

The Phase 2 expansion of the WWTP will increase the capacity of the plant from 1,370,000 gallons per day to 1,900,000 gallons per day, an increase of 530,000 gallons per day. Since the Phase 2 improvements will provide benefits to all development, not just to future development, EFA used the total future capacity of the treatment plant to determine the cost per gallon of flow. We therefore equally divide the cost of improvements among all existing and future developments.

Table 3: Capital Improvements List and Improvement Fee Calculation

<u>Project</u>	<u>Total Cost</u>	<u>Increased Capacity (gallons)</u>	<u>Cost/Gallon</u>
WWTP, Phase 2	\$3,150,000	1,900,000	\$1.66
Wilco Rd PS	\$325,000	1,900,000	\$0.17
Gardner Rd PS	\$225,000	1,900,000	\$0.12
Mill Creek PS	\$1,164,000	1,900,000	\$0.61
Shaff Rd line	\$88,000	1,900,000	\$0.05
Relief Trunk line	\$900,000	1,900,000	\$0.47
Oversize Trunk	\$75,000	1,900,000	\$0.04
Total	\$5,927,000		\$3.12
Average Household Usage/day, gallons dry weather			300
SDC, Reimbursement Fee for a single-family residence on a 3/4" meter			\$940

Source: City of Stayton, Facilities Plan and other internal documents.

Since each new development will pay the entire SDC which benefits all parts of the collection system, we use the total system capacity to allocate the costs of the collection projects. These assumptions lead to an improvement fee of \$3.12 per gallon per day of capacity, or \$940 per single family residence or equivalent, i.e., 300 gallons/day/residence x \$3.12/gallon/day of capacity.

4. ALTERNATIVE METHODS OF ASSESSING THE SDC

The City has been using equivalent fixture units to assess the SDC on non-residential development. This method is popularly used and is manageable. An alternative to the fixture method is the water-

meter-size method. This method also is popularly used and, EFA believes, more easily managed than the fixture method. Both methods begin with the calculation of an SDC for an average single-family residence.

Following are two sub-sections. The first shows the proposed SDC with the new reimbursement fee and the updated improvement fee. For illustrating the effects, we use the lower of the preliminary improvement fees. The second section shows the same preliminary proposed SDC using the meter-size method.

a. Current Plumbing-Fixture Method

Table 4: Proposed SDC by Fee, Plumbing-Fixture Method

	Systems Development Charge Fees		
	Reimbursement	Improvement	Total
New Residential Structure	\$2,190	\$940	\$3,130
Additions or alterations, residential	\$0	\$0	\$0
New Non-Residential Structure			
by # of plumbing fixtures			
1 through 20	\$2,190	\$940	\$3,130
per fixture > 20	\$137	\$59	\$196
Additions or alternations, non-residential			
per fixture	\$137	\$59	\$196

Source: Economic & Financial Analysis. The above fixture unit rates would be applied according to Resolution No. 537, Exhibit B.

b. Alternative Water-Meter-Size Method

The alternative method relies on the fact that sewer customers produce sewage in proportion to the amount of water they use. Since larger water meters are capable of higher instantaneous and continuous water flows than smaller meters, the city has to expect that at some time customers with large meters will use more water than customers with small meters. The fixture method relies on this same assumption only the method of measurement is the number of fixture units instead of meter size.

For residential customers, this method is applied by meter size or by the number of housing units in a multifamily development. Since, multifamily developments on a per housing unit basis use about 80 percent as much water in winter as a single family household, the SDC is set at 80 percent of the rate for a single-family household multiplied by the number of housing units. The meter size alone in multifamily developments tends to be a poor measure of sewage production because the meter is sized to provide outdoor usage as well as indoor usage for multiple residential units. The outdoor usage does not enter the sewage system.

For non-residential developments, the SDC is based on size water meter the developer requests at the time of filing permit requests. The SDC increases in proportion to the amount of water the meter is capable of safely delivering. For example a 1½ inch meter is capable of delivering 3⅓ times more water than a standard ¾- inch meter, therefore, the SDC for the 1½- inch meter is 3⅓ times more than for a ¾- inch meter.

The meter-size method is popular and more easily managed than the fixture method, because there is only 1 "fixture", namely the water meter, that the city has to determine the charge for the appropriate SDC. When a developed property expands, the only issue of concern for SDC assessment purposes is if the development is increasing the size of its water meter. Since the city controls the installation of water meters, there is no guess work about what if any new fixtures are being installed in the expanded development. The SDC charged in this case is the difference in SDCs between the two meter sizes. No payment is made back to the development if the development reduces meter size.

Table 5: Proposed SDC by Fee, Meter-Size Method

Meter Size (inches)	Safe Maximum Oprtg. Capacity (gpm)	Equivalent Number 3/4" meters	SDC
3/4"	30	1	\$3,130
1"	50	1.67	\$5,220
1 1/2"	100	3.33	\$10,430
2"	160	5.33	\$16,690
3"	320	10.67	\$33,390
4"	500	16.67	\$52,170
6"	1000	33.33	\$104,330
8"	1600	53.33	\$166,930
Multi-Family Housing Unit			\$2,500

Source of Equivalencies: American Water Works Association (AWWA) numbers AWWA C702-86 for meters under 3-inches in diameter and AWWA C702-86 for Turbine meters 3-inches and larger in diameter (compound-type meters). These publications set the American National Standard for cold-water meter safe maximum operating capacities.