



WATER SYSTEM DEVELOPMENT CHARGE UPDATE

DRAFT REPORT
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Section I. INTRODUCTION

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

I.A. PROJECT

The City of Milwaukie (City) imposes a system development charge (SDC) to recover eligible infrastructure costs and provide partial funding for the capital needs of its water system. Water SDCs are charged to all new development within the City’s boundaries, both residential and commercial. For a typical single-family dwelling unit, the current water SDC is \$2,297.

In 2021, the City contracted with FCS GROUP to update the City’s water SDC based on the Water System Master Plan completed by Tetra Tech. This plan identified a total of \$50.0 million in capital projects to be completed by the City between 2023 and 2042.

I.B. POLICY

SDCs are enabled by state statute, authorized by local ordinance, and constrained by the United States Constitution.

I.B.1. State Statute

Oregon Revised Statutes (ORS) 223.297 to 223.316 enable local governments to establish SDCs, which are one-time fees on development that are paid at the time of development or redevelopment that creates additional demand for the water system. SDCs are intended to recover a fair share of the cost of existing and planned facilities that provide capacity to serve future users (i.e., growth).

ORS 223.299 defines two types of SDC:

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

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

ORS 223.304(2) states, in part, that an improvement fee must be calculated to include only the cost of projected capital improvements needed to increase system capacity for future users. In other words, the cost of planned projects that correct existing deficiencies or that do not otherwise increase capacity for future users may not be included in the improvement fee calculation. An improvement

fee may be spent only on capital improvements (or portions thereof) that increase the capacity of the system for which it is being charged (whether cash-financed or debt-financed).

In addition to the reimbursement and improvement fees, ORS 223.307(5) states, in part, that “system development charge revenues may be expended on the costs of complying” with state statutes concerning SDCs, including “the costs of developing system development charge methodologies and providing an annual accounting of system development charge expenditures.”

I.B.2. Local Ordinance

The City’s code authorizes and governs the imposition and expenditure of SDCs in the City found in Section 13.28 of the Code of the City of Milwaukie.

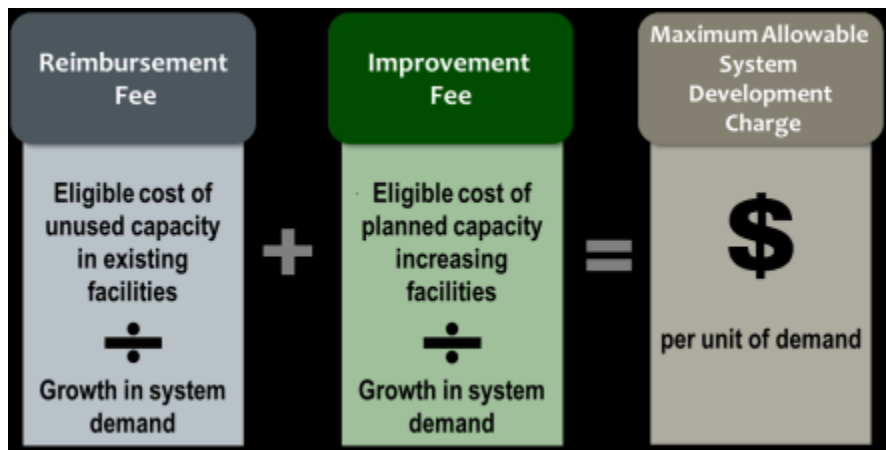
I.B.3. United States Constitution

The United States Supreme Court has determined that SDCs, impact fees, or other exactions that comply with state and/or local law may still violate the United States Constitution if they are not proportionate to the impact of the development. The SDCs calculated in this report are designed to meet all constitutional and statutory requirements.

I.C. SDC BACKGROUND

In general, SDCs are calculated by adding a reimbursement fee component (if applicable) and an improvement fee component—both with potential adjustments. Each component is calculated by dividing the eligible cost by growth in units of demand. The unit of demand becomes the basis of the charge. Below is an illustration of this calculation:

Exhibit 1: SDC Methodology



Section II. SDC CALCULATION

This section provides the detailed calculations of the maximum allowable water SDC.

II.A. GROWTH

The calculation of projected growth begins with defining the units by which current and future demand will be measured. Then, using the best available data, the current level of demand is quantified, and the future level of demand is estimated. The difference between the current level and the future level is the growth in demand that will serve as the denominator in the SDC calculations.

II.A.1. Unit of Measurement

A good unit of measurement allows an agency to quantify the incremental demand of development or redevelopment that creates additional demand for system facilities. A more precise unit of measurement allows an agency to distinguish different levels of demand added by different kinds of development or redevelopment.

For water SDCs, demand is often measured in terms of meter capacity equivalents (MCEs), where one MCE is equal to the maximum flow in gallons per minute provided by the smallest water meter the City installs. To calculate the demand incurred by other development types, MCEs can be assigned based on the differential flow rates of different meter sizes.

Currently, the City charges its water SDC using the MCE method using the flow rates of a 3/4” meter as its base. This report continues this practice.

II.A.2. Growth in Demand

In 2019, the City had a total maximum day water demand (MDD) of 4.13 million gallons per day (MGD). The Water System Master Plan estimates that MDD will grow to 5.64 MGD per day by 2040. Interpolating the City's estimates, the MDD in 2023 is approximately 4.38 MGD.

According to the City’s estimates, there were 8,664 MCEs in 2023. If MCEs grow at the same rate as MDD, there will be 11,149 MCEs in 2040. So, the growth in MCEs over the planning period is 2,485 and the growth share, or the percentage of MCEs in 2040 that will arrive between 2023 and 2040, is 22.29 percent.

These calculations are summarized in **Exhibit 2** below. The growth of 2,485 will be the denominator for the SDC calculation.

Exhibit 2: Growth in MCEs

	2019	2023	2040	Growth (2023-2040)	Growth Share
Peak Season Maximum Day Demand (MGD)	4.13	4.38	5.64	1.26	22.29%
Total MCEs		8,664	11,149	2,485	22.29%

Source: 2021 Water System Master Plan, Table 3-7 (maximum day demand projections); previous tables (total MCEs)

II.B. IMPROVEMENT FEE

An improvement fee is the eligible cost of planned projects per unit of growth that such projects will serve. The growth component (denominator) was calculated above and the following section will focus on the improvement fee cost basis (numerator).

II.B.1. Eligibility

A project's eligible cost is the product of its total cost and its eligibility percentage. The eligibility percentage represents the portion of the project that creates capacity for future users. Where possible, specific details about a project can provide an eligibility percentage. Details about pumping capacities for pump replacement projects allowed for specific eligibility calculations for those projects. Specific capacity calculations were also made for storage reservoir projects.

When specific details are not available or necessary, projects can be sorted into three broad categories. The first category is for projects that do not provide capacity for future users. Such projects may be purely replacement projects, or they may be solving a deficiency in the water system. Projects in this category are 0 percent eligible. The second category is for projects that are purely for future users, such as when new pipe is laid to provide for a new development. These projects are 100 percent eligible. Finally, projects that provide capacity that will be proportionately shared between current and future users are eligible at the growth share percentage discussed in the previous section, 22.29 percent.

II.B.2. Improvement Fee Cost Basis

Projects in the improvement fee cost basis were taken from the City's Water System Master Plan. Each project was assigned an eligibility percentage based on the discussion above. One project (Stanley Reservoir) will be entirely funded by outside sources and thus will not be included in the cost basis.

Appendix A displays all the projects in the water system improvement fee cost basis. The total cost for the project list is \$50.0 million. The eligibility for each project is shown in the SDC Eligibility column, and the SDC Eligible Costs column shows that the full amount of the improvement fee cost basis is \$11.6 million.

II.C. REIMBURSEMENT FEE COST BASIS

A reimbursement fee is the eligible cost of the water facilities available for future users per unit of growth that such facilities will serve. The denominator of this equation is calculated as the growth in demand. The following discussion focuses on calculating the numerator of the equation to determine the eligible cost of the water facilities available for future users. That is, it focuses on the cost of reimbursable water facilities.

II.C.1. Storage Capacity for Growth

According to the 2021 Water System Master Plan, the current storage system has 6.00 million gallons (MG) of capacity. Based on Table 7-4 of the Water System Master Plan and the projected required capacity between 2019 and 2040, the current required capacity is estimated to be 3.87 MG. By 2040,

that demand will rise to 6.40 MG. Thus, the difference between existing required capacity and existing capacity – or 2.13 MG – is available for growth that will arrive by 2040. That is, 35.5 percent of the storage capacity is available for growth.

The estimated total original cost of storage assets in the City is \$1.4 million. There was no outside funding, and the water utility has no outstanding debt, so no adjustments to the cost basis are necessary. Therefore, the reimbursable cost of the storage facilities is \$1.4 million multiplied by the capacity available for growth of 35.5 percent, for a total of \$514,000.

These calculations are summarized in **Exhibit 3** below.

Exhibit 3: Reimbursable Cost of Storage Facilities

Storage	
Existing Capacity (MG)	6.00
2023 Required Capacity (MG)	3.87
2040 Required Capacity (MG)	6.40
Capacity Available for Growth (MG)	2.13
Capacity Available for Growth (%)	35.5%
Original Cost	\$ 1,447,865
Outside Funding	-
Total Reimbursable Cost:	\$ 514,174

Source: 2021 Water System Master Plan, Table 7-4 (capacity and demand); City staff (original cost of storage assets)

II.C.2. Supply Capacity for Growth

Based on Table 5-3 of the Water System Master Plan and the projected MDD between 2019 and 2040, the current MDD is estimated to be 3,372 gallons per minute (gpm). By 2040, that demand will rise to 4,304 gpm. Further, with capacity of 5,094 gpm, the City has more than sufficient supply to accommodate growth. Thus, the difference between existing MDD and future MDD – or 932 gpm – is available as capacity for growth that will arrive by 2040. That is, 18.3 percent of the supply capacity is available for growth.

The estimated total original cost of supply assets in the City is \$4.3 million. There was no outside funding, and the water utility has no outstanding debt, so no adjustments to the cost basis are necessary. Therefore, the reimbursable cost of the supply facilities is simply \$4.3 million multiplied by the capacity available for growth of 18.3 percent, for a total of \$788,000.

These calculations are summarized in **Exhibit 4** below.

Exhibit 4: Reimbursable Cost of Supply Facilities

Supply	
Existing Supply Capacity (gpm)	5,094
Existing MDD (gpm)	3,372
2040 MDD (gpm)	4,304
Capacity Available for Growth (gpm)	932
Capacity Available for Growth (%)	18.3%
Original Cost	\$ 4,307,901
Outside Funding	-
Total Reimbursable Cost:	\$ 788,052

Source: 2021 Water System Master Plan, Table 5-3 (demand); City staff (original cost of supply assets)

II.C.3. Pumping Capacity for Growth

Pumping capacity in the City is broken down by zones into Zones 1, 2, 3, and 4. Analysis of each zone was performed separately. The only zone with surplus capacity was Zone 4, whose pumping capacity estimates are listed below.

According to the 2021 Water System Master Plan, Zone 4’s current pumping system has 2,350 gpm of “firm” capacity (capacity with its largest pump out of service). Based on Table 7-6 of the Water System Master Plan and the projected MDD plus fire flow between 2019 and 2040, Zone 4’s current MDD plus fire flow is estimated to be 1,526 gpm. By 2040, that demand will rise to 1,539 gpm. Thus, the difference between current demand and future demand – or 13 gpm – is available for growth that will arrive by 2040. That is, 0.6 percent of the pumping capacity is available for growth. The estimated total original cost of pumping assets in Zone 4 is \$278,000. There was no outside funding, and the water utility has no outstanding debt, so no adjustments to the cost basis are necessary. Therefore, the reimbursable cost of the supply facilities is simply \$278,000 multiplied by the capacity available for growth of 0.6 percent, for a total of \$1,538.

These calculations are summarized in **Exhibit 5** below.

Exhibit 5: Reimbursable Cost of Pumping Facilities

Pumping (Zone 4)	
Existing Firm Capacity (gpm)	2,350
2023 MDD plus Fire Flow (gpm)	1,526
2040 MDD plus Fire Flow (gpm)	1,539
Capacity Available for Growth (gpm)	13
Capacity Available for Growth (%)	0.6%
Original Cost	\$ 278,071
Outside Funding	-
Total Reimbursable Cost:	\$ 1,538

Source: 2021 Water System Master Plan, Table 7-6 (demand); City staff (original cost of pumping assets)

II.C.4. Total Reimbursable Cost

Due to fire flow deficiencies, the transmission and distribution (T&D) system has no capacity for growth. Therefore, the total from the storage, pumping, and supply systems of \$1.3 million will be the reimbursement fee cost basis.

Exhibit 6: Total System Reimbursable Costs

	Estimated Capacity for Growth	Original Cost	Reimbursable Cost
Supply	18.29%	\$ 4,307,901	\$ 788,052
Storage	35.51%	1,447,865	514,174
Pumping	0.22%	687,747	1,534
Transmission & Distribution	0.00%	15,009,614	-
Total:		\$ 21,453,127	\$ 1,303,760

II.D. CALCULATED SDC

This section combines the eligible costs from the improvement fee cost basis and the reimbursement fee cost basis and applies some adjustments. The result is a total SDC per MCE.

II.D.1. Adjustments

The City must reduce its improvement fee cost basis by \$79,779 to account for any remaining improvement fee fund balance in its current SDC fund. This is done to avoid double-charging for projects that the City has already collected improvement fees for. This adjustment is shown in **Exhibit 7** below.

Exhibit 7: Adjustments to the Improvement Fee Cost Basis

Adjustments to SDC Cost Basis	
Unadjusted Improvement Fee Cost Basis	\$ 11,635,069
Improvement Fee Fund Balance	(79,779)
Total Improvement Fee Cost Basis:	\$ 11,555,291

To account for the cost of complying with SDC law, the City may add \$1.0 million to the full SDC cost basis. This is based on the City’s current practice of adding 7.66 percent to the total improvement and reimbursement fees to account for administration of the SDC program.

II.D.2. Calculated SDC

Exhibit 8 below summarizes the full calculation of the SDC. As shown, the full SDC is \$5,603 per MCE.

Exhibit 8: Calculated SDC

Calculated SDC	
Improvement Fee Cost Basis	\$ 11,555,291
Reimbursement Fee Cost Basis	1,303,760
Compliance Costs	985,098
Total:	\$ 13,844,149
Growth in MCEs	2,485
Improvement Fee per MCE	\$ 4,682
Reimbursement Fee per MCE	525
Compliance Fee per MCE	396
Total SDC per MCE:	\$ 5,603

Exhibit 9 below shows the full water SDC schedule.

Exhibit 9: Water SDC Schedule

Meter Size	MCE Ratio	Improvement Fee	Reimbursement Fee	Compliance Fee	Calculated Full SDC
3/4"	1.00	\$ 4,682	\$ 525	\$ 396	\$ 5,603
1"	1.67	7,804	874	661	9,339
1.5"	3.33	15,608	1,749	1,321	18,678
2"	5.33	24,972	2,798	2,114	29,885
3"	10.67	49,944	5,596	4,229	59,769
4"	16.67	78,038	8,744	6,607	93,389
6"	33.33	156,075	17,489	13,214	186,779
8"	53.33	249,721	27,982	21,143	298,846
10"	76.67	358,973	40,225	30,393	429,591
12"	168.75	790,132	88,538	66,898	945,567

The City’s wastewater utility assesses wastewater SDCs in a scaled rate schedule segmented by house size. This approach is based on – and designed to be consistent with – the approach proposed by Clackamas County Water Environment Services (WES). To be consistent between the wastewater and water utility, scaled water SDCs have been calculated as well. In **Exhibit 10**, equivalent dwelling units (EDUs) are applied to the calculated SDC based on house square footage. These would apply only to homes with 3/4” water meters.

Exhibit 10: Scalable SDC by House Size

	EDUs	Max.	
		Water	SDC
Single-Family Residential			
< 500 sqft (use ADU rate)	0.60	\$	3,362
500-800 sqft	0.70		3,922
800-1,799 sqft	0.90		5,043
1,800-2,999 sqft	1.00		5,603
3,000-3,799 sqft	1.10		6,164
≥ 3,800 sqft	1.20		6,724
Accessory dwelling unit (ADU)	0.60		3,362

Source: 2021 Water Environment Services Rules and Regulation

Section III. IMPLEMENTATION

This section addresses practical aspects of implementing SDCs and provides a comparison with relevant jurisdictions.

III.A. INDEXING

ORS 223.304 allows for the periodic indexing of SDCs for inflation, as long as the index used is:

- (A) A relevant measurement of the average change in prices or costs over an identified time period for materials, labor, real property or a combination of the three;
- (B) Published by a recognized organization or agency that produces the index or data source for reasons that are independent of the system development charge methodology; and
- (C) Incorporated as part of the established methodology or identified and adopted in a separate ordinance, resolution or order.

In accordance with Oregon statutes, it is recommended that the City use the *Engineering News-Record* (ENR) Construction Cost Index (CCI) – Seattle as the basis for adjusting SDCs annually. ENR does not have a comparable Oregon-specific index.

III.B. COMPARISONS

This section provides comparisons for the City’s current and proposed water SDCs against those of comparable jurisdictions. As shown in **Exhibit 11**, the current charge puts the City at the very bottom of comparable jurisdictions. If the water SDC is implemented as proposed, the City will move above a few jurisdictions.

Exhibit 11: Water SDC Comparisons

Water SDC per 5/8" meter	
West Linn	\$ 15,385
Oregon City	13,967
Wilsonville	12,089
Tigard	10,853
Beaverton	10,329
Gladstone	9,986
Lake Oswego	9,571
Sherwood	9,544
Tualatin	8,290
Milwaukie (proposed)	5,603
Gresham	5,603
Portland	4,563
Milwaukie (current)	2,197

*Source: FCS Group Survey (7/12/23)
 Assumes 5/8" meter*

APPENDIX A – IMPROVEMENT FEE COST BASIS

Exhibit 12: Improvement Fee Cost Basis

#	Description	Timeline	2023 Project Cost	SDC Eligibility	Outside Funding	SDC-Eligible Cost
1	Unspecified miscellaneous equipment replacement and upgrades as needed	2023-2032	\$ 325,368	0.00%	\$ -	\$ -
2	Intertie Development	2025-2032	325,368	22.29%	-	72,522
3	Re-establish the production of Well 8 to maximize supply	2024	271,140	22.29%	-	60,435
4	HVAC upgrades all wellhouses	2023-2027	325,368	0.00%	-	-
5	Well electrical upgrades	2024-2032	406,710	22.29%	-	90,652
6	Well #4 Reconditioning	2023	65,074	0.00%	-	-
7	Well #7 Reconditioning	2023	65,074	0.00%	-	-
8	Well #3 Reconditioning	2024	65,074	0.00%	-	-
9	Well #5 Reconditioning	2026	65,074	0.00%	-	-
10	Well #6 Reconditioning	2028	65,074	0.00%	-	-
11	Well #2 Building Improvements	2026	108,456	0.00%	-	-
12	CRW / Oak Lodge Intertie	2024	132,316	22.29%	-	29,492
13	WTP 235 generation replacement/ relocation and automatic transfer switch/	2026	1,735,295	22.29%	-	386,782
14	WTP 47 generation replacement/ relocation and automatic transfer switch/ b	2027	1,735,295	22.29%	-	386,782
15	Stanley Reservoir: 3.0 MG tank recoating. Modernize mixing system	2023-2024	2,895,774	22.29%	2,895,774	-
16	Construct additional 3MG storage reservoir to address storage deficiency in 2	2029-2030	7,049,637	73.33%	-	5,169,734
17	Concrete Tank liner replacement (per Potable Divers Inc. Report July 2020) ar	2023	650,736	0.00%	-	-
18	Address deferred maintenance	2023-2032	325,368	0.00%	-	-
19	Replace W2 PS with two 3,000 gpm pumps.	2025	1,626,839	0.00%	-	-
20	Replace the 3rd Zone PS with two 2,000 gpm pumps	2027	1,301,471	40.43%	-	526,120
21	Replace the W6 PS with two 2,000 gpm pumps.	2032	1,301,471	55.25%	-	719,063
22	Lava Pump Station backup generator	2025	105,202	22.29%	-	23,449
23	Replace 10-inch pipe with 650 feet of 12-inch pipe on Main St. Replace 6,10-in	2026	1,129,948	22.29%	-	251,856
24	Install 1470 feet of 12-inch pipe on Firwood St.	2027	554,264	22.29%	-	123,541
25	Install 800 feet of 12-inch pipe on Flavel Dr.	2027	303,677	22.29%	-	67,687
26	Replace 4-inch pipe with 500 feet of 8-inch pipe on Winworth Ct.	2028	136,112	0.00%	-	-
27	Install 750 feet of 12-inch pipe on 23rd Ave. Replace 6-inch pipe with 600 fee	2027	759,354	22.29%	-	169,254
28	Replace 4-inch pipe with 240 feet of 8-inch pipe on Elk St. Install 380 feet of 8	2025	273,309	0.00%	-	-
29	Replace 4-inch pipe with 260 feet of 8-inch pipe on 44th Ave. Replace 4-inch	2027	260,077	0.00%	-	-
30	Replace 6-inch pipe with 360 feet of 8-inch pipe on Drake St. Replace 4, 6-inc	2031	310,943	0.00%	-	-
31	Replace 16-inch transmission main from the Concrete Reservoir to Zone 2 wi	2028	1,937,023	22.29%	-	431,746
32	Replace 6-inch pipe with 1550 feet of 8-inch pipe on Adams St. Replace 6-inc	2028	1,077,239	0.00%	-	-
33	Replace 6-inch pipe with 800 feet of 16-inch pipe on Oak St. Replace 6-inch p	2027	1,868,642	22.29%	-	416,504
34	Replace 10-inch pipe with 300 feet of 16-inch pipe on Sparrow St. Replace 10-	2029	1,263,674	22.29%	-	281,662
35	Install 450 feet of 8-inch pipe between Roswell St and Boyd St.	2024	123,369	0.00%	-	-
36	Replace 4-inch pipe with 220 feet of 12-inch pipe on 54th Ave. Install 340 fee	2039-2042	640,432	22.29%	-	142,747
37	Replace 4-inch pipe with 180 feet of 8-inch pipe on 30th Ave.	2032	47,612	0.00%	-	-
38	Replace 4-inch pipe with 180 feet of 8-inch pipe on 31st Ave.	2032	47,612	0.00%	-	-
39	Replace 4-inch pipe with 300 feet of 8-inch pipe on 55th Ave.	2032	82,969	0.00%	-	-
40	Replace 6-inch pipe with 470 feet of 8-inch pipe on 41st Ct.	2032	128,900	0.00%	-	-
41	Install 580 feet of 16-inch pipe on Minthorn Springs. Replace 10, 12-inch pipe	2028	2,366,780	22.29%	-	527,535
42	Replace 6-inch pipe with 250 feet of 8-inch pipe on 47th Ave. Replace 4, 6-inc	2029	848,776	0.00%	-	-
43	Install 440 feet of 8-inch pipe on Ulewellyn St.	2033-2038	118,434	0.00%	-	-
44	Replace 6, 8-inch pipe with 1660 feet of 12-inch pipe on King Rd. Replace 8-in	2031	1,473,374	22.29%	-	328,402
45	Replace 6-inch pipe with 710 feet of 8-inch pipe on 30th Ave. Replace 6-inch	2031	554,427	0.00%	-	-
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(Improvement Fee Cost Basis – Continued)

#	Description	Timeline	2023 Project Cost	SDC Eligibility	Outside Funding	SDC-Eligible Cost
46	Reconnect King Rd Hydrants to 10-inch line.	2031	21,040	0.00%	-	-
47	Replace 8-inch pipe with 420 feet of 12-inch pipe on Grogran St. Replace 4, 6-	2039-2042	640,432	22.29%	-	142,747
48	Replace 4-inch pipe with 330 feet of 8-inch pipe on 36th Ave.	2033-2038	90,181	0.00%	-	-
49	Replace 4-inch pipe with 700 feet of 8-inch pipe on Balfour St.	2033-2038	190,340	0.00%	-	-
50	Install 240 feet of 8-inch pipe between 63rd and 64th Ave.	2033-2038	65,290	0.00%	-	-
51	Replace 6-inch pipe with 430 feet of 8-inch pipe on Northridge Dr. Replace 6-	2039-2042	287,734	0.00%	-	-
52	Replace 6-inch pipe with 340 feet of 8-inch pipe on Hunter St.	2033-2038	91,862	0.00%	-	-
53	Install 380 feet of 8-inch pipe between 41st Ave and 42nd Ave at Meadowcre	2033-2038	104,009	0.00%	-	-
54	Replace 6-inch pipe with 360 feet of 12-inch pipe on 32nd Ave.	2033-2038	136,004	22.29%	-	30,314
55	Install 410 feet of 12-inch pipe between Wichita Ct and Woodhaven St.	2033-2038	155,255	22.29%	-	34,605
56	Replace 10-inch pipe with 600 feet of 12-inch pipe on 26th Ave.	2039-2042	226,673	22.29%	-	50,523
57	Install 390 feet of 12-inch pipe from the industrial area to Railroad Ave.	2033-2038	148,422	22.29%	-	33,082
58	Replace 6-inch pipe with 630 feet of 8-inch pipe on 30th Ave. Replace 6-inch	2039-2042	363,490	0.00%	-	-
59	Replace 6-inch pipe with 550 feet of 8-inch pipe on 29th Ave. Replace 6-inch	2039-2042	240,284	0.00%	-	-
60	Install 352 feet of 8-inch pipe at Quail Ridge Apartments.	2033-2038	96,049	0.00%	-	-
61	Replace 12-inch pipe with 1280 feet of 12-inch pipe on Hanna Harvester Dr.	2039-2042	482,846	22.29%	-	107,622
62	Replace 4-inch pipe with 240 feet of 8-inch pipe on Waymire St.	2039-2042	65,290	0.00%	-	-
63	Replace 6-inch pipe with 350 feet of 8-inch pipe on Oxford Ln.	2039-2042	95,712	0.00%	-	-
64	Install 310 feet of 8-inch pipe between Brookside Apartments and Brookside	2039-2042	84,650	0.00%	-	-
65	Install 500 feet of 8-inch pipe on Se Furnberg St.	2039-2042	136,112	0.00%	-	-
66	Replace 8-inch pipe with 90 feet of 12-inch pipe on McLoughlin Blvd. Replace	2039-2042	48,751	22.29%	-	10,866
67	Replace 6-inch pipe with 410 feet of 8-inch pipe on 41st Ave.	2039-2042	111,222	0.00%	-	-
68	Replace 6-inch pipe with 350 feet of 8-inch pipe on 29th Ave.	2033-2038	95,712	0.00%	-	-
69	Install 800 feet of 12-inch pipe on Stanley Place.	2033-2038	303,677	22.29%	-	67,687
70	Install 850 feet of 12-inch pipe between Riverway Ln and 17th Ave.	2039-2042	320,758	22.29%	-	71,494
71	Install 960 feet of 12-inch pipe on Monroe St.	2039-2042	363,761	22.29%	-	81,079
72	Replace 6-inch pipe with 460 feet of 8-inch pipe on White Lake Rd.	2039-2042	125,050	0.00%	-	-
73	Install 570 feet of 12-inch pipe on Clackamas Hwy.	2039-2042	215,339	22.29%	-	47,997
74	Replace 8-inch pipe with 550 feet of 12-inch pipe on Frontage Ave. Replace 8	2039-2042	286,758	22.29%	-	63,916
75	Replace 8-inch pipe with 255 feet of 12-inch pipe on 23rd Ave. Replace 6-inc	2039-2042	293,834	22.29%	-	65,493
76	Install 380 feet of 8-inch pipe on 21st Ave to Main St.	2039-2042	104,009	0.00%	-	-
77	Install 340 feet of 8-inch pipe on 56th Ave to Beckman Ave.	2039-2042	91,862	0.00%	-	-
78	Install 330 feet of 12-inch pipe on Deering Ct to Linwood Ave.	2039-2042	124,670	22.29%	-	27,788
79	Install 450 feet of 12-inch pipe on 60th Ave to Linwood Ave.	2039-2042	170,005	22.29%	-	37,893
80	Logus Road & 40th improvements	2023	284,155	0.00%	-	-
81	Milwaukie/El Puente SRTS improvements	2023	314,522	0.00%	-	-
82	Ardenwald South improvements	2024	902,353	0.00%	-	-
83	Waverley South improvements	2023	124,724	0.00%	-	-
84	International Way improvements	2024	300,423	0.00%	-	-
85	Monroe Street extension	2024	348,144	0.00%	-	-
86	Stanley Street extension	2024	95,441	0.00%	-	-
87	SAFE & SSMP FY 2025 improvements	2025	1,223,383	0.00%	-	-
88	Oatfield Rd & Shell Lane improvements	2026	108,456	0.00%	-	-
89	SCADA Implementation and Support	2024-2042	488,052	22.29%	-	108,783
90	Ongoing automation and control upgrades	2023-2042	1,084,559	22.29%	-	241,739
91	Update existing Water System Plan.	2029	271,140	22.29%	-	60,435
92	Long-term Climate Change Vulnerabilities and Alternatives Study. Develop α	2026	216,912	22.29%	-	48,348
93	Perform system wide seismic evaluation.	2029	325,368	22.29%	-	72,522
94	Planning and securing of additional water rights	2025-2028	108,456	22.29%	-	24,174
95	Revised Lead and Copper Rule Compliance Study	2023	135,570	0.00%	-	-
Total:			\$ 49,962,874		\$ 2,895,774	\$ 11,635,069

Source: 2021 Water System Master Plan, City staff