# ▪ MEMORANDUM ▪

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| **TO** | City of LowellPO Box 490Lowell, OR 97452 | **DATE** | 04/05/2023 | **JOB NO** | 2101-021 |
| **ATTN** | Jeremy Caudle, City Administrator |
| **RE** | City of Lowell Parks and Water System Development Charge Update |

## Executive Summary

The City of Lowell, Oregon (City) authorized Civil West Engineering Services, Inc. to update their Parks and Water System Development Charge (SDC) improvement project eligibilities. In accordance with Oregon Revised Statute (ORS) 223, the analysis of capital improvement projects and eligibilities was performed following the framework of the established Water and Parks SDC methodologies adopted by the City in Resolution 388 and Resolution 389 respectively on June 15, 2004.

Under statute, SDCs are a one-time fee imposed on new developments. In accordance with Resolution 388, commercial and industrial properties within the City’s service limits are subject to tiered Water SDCs based on meter size where Flow Factor Equivalence is scaled to the rate of a standard residential meter. Commercial and industrial properties are exempt from Park SDCs according to Resolution 389, unless those properties provide lodging (i.e., hotels and RV parks), in which case they are subject to 65% of the residential Park System SDC rate.

Based on an analysis of recent Water and Parks Capital Improvement Plans (CIPs), the recommended maximum defendable SDC schedule for the Water and Parks systems is presented in Table 2. Based on deliberation of the City Council, the determination was made to set the SDC schedule slightly below the maximum values. Table 1 below summarizes the approved SDC values.

Table 1 Recommended Schedule of Water and Parks SDCs

|  |  |  |
| --- | --- | --- |
| ***Type of Development*** Water Meter Size | **Flow Factor Equivalence** | **System Development Charges** |
| **Water** | **Parks** |
| ***Residential:*** |  |  |  |
|  | 5/8” x 3/4" | 1.00 | $7,068 | $1,004 |
| ***Commercial:*** |  |  |  |
|  | 0.75” | 1.50 | $10,602 | $1,506\* |
|  | 1.00” | 2.50 | $17,670 | ^ |
|  | 1.50” | 5.00 | $35,340 | ^ |
|  | 2.00” | 8.00 | $56,544 | ^ |
|  | 3.00” | 16.00 | $113,088 | ^ |

*\*65% of Residential Fee; applied only to commercial developments that provide lodging*

## Background

The projects analyzed were those listed in CIPs provided in the City’s Master Planning documents. The City of Lowell Parks Master Plan (PMP) was prepared by University of Oregon’s Institute for Policy Research and Engagement in May 2019. The City of Lowell Water Master Plan (WMP) was prepared by Civil West Engineering Services, Inc. in October 2022. SDCs associated with these capital projects were calculated following the established methodologies adopted in Resolution 388 (Water System) and Resolution 389 (Parks System).

## Population and EDU Analysis

An estimate of Lowell’s population in 2022 was provided in the WMP as 1290 people. This corresponded to an EDU of 536 (roughly 2.4 people per EDU). Current methodologies for the Parks and Water Systems estimate the EDU count at full system buildout at 896 and 878 respectively. Using the most recent EDU estimate as a basis, the future user EDU count was calculated for both systems as followed:

**Parks System**

Projected EDU at Buildout: 896

Current EDU in 2022: -536

**Future EDU Subject to Improvement SDCs: 360**

**Water System**

Projected EDU at Buildout: 878

Current EDU in 2022: -536

**Future EDU Subject to Improvement SDCs: 342**

## Capital Improvement Projects

### Parks System

Multiple Park improvement projects were recommended in the PMP totaling $1,940,366. The projects included improvements to Rolling Rock Park, Railroad Corridor Park, Paul Fisher Park, and the Cannon Street Festival Area. $28,935 was allocated in the CIP to replacement projects for Paul Fisher Park; these funds are not eligible for SDCs and were excluded from further calculations.

According to City policy, smaller, local use parks should be provided for new development at roughly these levels:

|  |  |
| --- | --- |
| Mini Parks (<1/4 mile service radius): | 1/2 acre per 400 EDU |
| Neighborhood Parks (1/4 to 1/2 mile service radius): | 2 acres per 400 EDU |
| Trails & Bike Paths: | 1 mile per 400 EDU |
| Natural Areas: | 7 acres per 400 EDU |

The projects listed in the PMP CIP meet the requirement for Natural Areas, approximately two-thirds of the requirement for Trails and Bike Paths, and approximately one-fifth of the requirement for Neighborhood Parks. The remainder of local use parks recommended for full buildout was estimated to total approximately $260,000 in 2022 dollars based on unit costs from previous Parks SDC calculations.

The percent eligibility for parks projects to serve future populations was calculated as a ratio of future EDU (360) to projected EDU at buildout (896), approximately 40%.

### Water System

$10,818,554 of improvements were recommended in the 2022 WMP for the City’s water system. Of these, $122,097 for retrofitting an air-burst screen cleaning system, $386,947 for fire protection upgrades, and $2,915,325 for seismic reinforcement of the distribution system are not eligible for SDCs because they do not increase system capacity.

$2,149,443 for a water treatment plant (including $306,420 for the plant’s new SCADA system), $1,783,243 for a 1.1 MG reservoir, and $2,964,500 for replacement of water mains in the distribution system with higher capacity pipes are partially eligible. $500,000 for a 500 GPM booster pump station to supply water to a planned future development is completely eligible. Percent eligibilities for these water system projects were calculated as followed:

*New 500 GPM Water Treatment Plant*

The new Water Treatment Plant was sized based on an analysis of future water demand. Based on Max Daily Demand (MDD), the current population requires water production at a rate of 246,127 GPD (WMP Table 4.2.3). The expected MDD at buildout equals 412,160 GPD. The percent eligibility of the new plant was calculated as the proportion of future MDD for future population:

$$\frac{Future Demand-Current Demand}{Future Demand}=\frac{412,160 GPD-246,127 GPD}{412,160 GPD}=40\%$$

*New 0.8 MG Reservoir*

The City currently has an older 460,000-gallon concrete reservoir in poor condition. A new 800,000-gallon reservoir was proposed to replace this older reservoir. Considering the capacity increase from replacement of the concrete reservoir, the percentage of the new reservoir built for future population was therefore calculated as:

$$\frac{New Reservoir Size-Old Reservoir Size}{New Reservoir Size}=\frac{800,000 gal-460,000 gal}{800,000 gal}=43\%$$

*Water Main Replacements*

It was proposed to increase all 6” asbestos concrete pipes to 8” HDPE, and all 10” asbestos concrete pipes to 12” HDPE to provide capacity for growth. The capacity of pipes is directly proportional to cross sectional area. The WMP proposed improving 9595 ft of 6” pipe and 1745 ft of 10” pipe. Assuming current pipe diameters meet current capacity requirements, the average increase in pipe capacity resulting from pipe upsizing is assumed to fully benefit future population. The capacity increase benefiting the future population was therefore calculated as:

$$\frac{\left(\frac{Increase in Pipe Area}{Proposed Pipe Area}\*ft pipe improved\right)\_{8”}+\left(\frac{Increase in Pipe Area}{Proposed Pipe Area}\*ft pipe improved\right)\_{10”}}{total ft pipe improved \left(8 and 10\right)}= $$

$$\frac{\left(\frac{8^{2}-6^{2}}{8^{2}}\*9595 ft\right)\_{8”}+\left(\frac{12^{2}-10^{2}}{12^{2}}\*1745 ft\right)\_{10”}}{9595 ft+1745 ft}=42\%$$

# Summary

The capital improvement projects recommended by the Parks and Water system Master Planning Documents were assessed for SDC eligibility. The eligibility of projects for both systems are itemized and resulting SDCs are provided below in Table 2.

Table 2 Summary of Capital Improvement Project SDC Eligibility and SDC Calculations

| **PARKS SUMMARY** |  | **Existing Users** | **Future Users** |
| --- | --- | --- | --- |
|  | **Total 2022 Cost** | **%** | **Cost Share** | **%** | **Cost Share** |
| Rolling Rock Park Improvements | $903,910 | 60% | $540,732 | 40% | $363,178 |
| Railroad Corridor Park Improvements | $164,427 | 60% | $98,363 | 40% | $66,064 |
| Paul Fisher Park Improvements | $504,596 | 60% | $301,857 | 40% | $202,740 |
| Paul Fisher Park Replacements | $28,935 | 100% | $28,935 | 0% | $0 |
| Cannon Street Festival Area Improvements | $338,498 | 60% | $202,494 | 40% | $136,004 |
| 0.45 Acre Mini Parks | $54,000 | 0% | $0 | 100% | $54,000 |
| 1.4 Acre Neighborhood Parks | $168,000 | 0% | $0 | 100% | $168,000 |
| 0.3 Mile Trails | $38,016 | 0% | $0 | 100% | $38,016 |
|  |  |  |  |  |  |
| **Total Park Costs** | **$2,200,382** |  | **$1,172,381** |  | **$1,028,002** |
|  divided by future EDU to be served |  |  |  |  | ÷ 360 |
| **EQUALS MAXIMUM PARK SDC** |  |  |  |  | **$2,856** |
|   |   |   |   |   |   |
| **WATER SUMMARY** |  | **Existing Users** | **Future Users** |
|  | **Total 2022 Cost** | **%** | **Cost Share** | **%** | **Cost Share** |
| New 500 GPM Water Treatment Plant | $2,149,443 | 60% | $1,283,569 | 40% | $865,873 |
| 0.8 MG Reservoir - Upper Pressure Zone | $1,783,243 | 58% | $1,025,364 | 43% | $757,878 |
| 500 GPM Booster Pump Station | $500,000 | 0% | $0 | 100% | $500,000 |
| Water Main Replacements | $2,964,500 | 58% | $1,728,304 | 42% | $1,236,197 |
| SRAMP Backbone Upgrades | $2,912,325 | 100% | $2,912,325 | 0% | $0 |
| Air Burst Retrofit | $122,097 | 100% | $122,097 | 0% | $0 |
| Fire Protection Upgrade Project | $386,947 | 100% | $386,947 | 0% | $0 |
|  |  |  |  |  |  |
| **Total Water Costs** | **$10,818,554** |  | **$7,458,606** |  | **$3,359,948** |
|  divided by future EDU to be served |  |  |  |  | ÷ 342 |
| **EQUALS MAXIMUM WATER SDC** |  |  |  |  | **$9,824** |