Affordability Benchmarks & Evaluation for the Combined Sewer Overflow Program

April 17, 2020
Project Objectives

Use current Drainage and Wastewater Line of Business costs to determine Community Affordability and Customer Affordability for implementation of the Combined Sewer Overflow program.

- Assess Community Affordability using Environmental Protection Agency (EPA) Financial Capability Assessment Guidance.

- Assess Customer Affordability using 2018 Affordability Framework recommendations compiled by NACWA/AWWA/WEF

- Use the information for the Combined Sewer Overflow (CSO) Plan Update.
Community Affordability

1997 EPA Financial Capability Assessment (FCA) Matrix for Community Affordability

Uses Median Household Income for the Residential Indicator plus Utility Financial Capability to determine:

Community ability to afford a Combined Sewer Overflow (CSO) Program and Length of Schedule for CSO Program

<table>
<thead>
<tr>
<th>Residential Indicator (Cost per Household as a % on MHI)</th>
<th>Low (Below 1.0%)</th>
<th>Mid-Range (1.0% to 2.0%)</th>
<th>High (Above 2.0%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permittee Financial Capability Indicator</td>
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<td></td>
</tr>
<tr>
<td>Weak (Below 1.5)</td>
<td>Medium Burden</td>
<td>High Burden</td>
<td>High Burden</td>
</tr>
<tr>
<td>Mid-Range (1.5 to 2.5)</td>
<td>Low Burden</td>
<td>Medium Burden</td>
<td>High Burden</td>
</tr>
<tr>
<td>Strong (Above 2.5)</td>
<td>Low Burden</td>
<td>Low Burden</td>
<td>Medium Burden</td>
</tr>
</tbody>
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FCA Matrix Showing SPU’s Position Based on FCA Model Result

City of Seattle
Seattle Public Utilities
2018 Affordability Framework recommendations compiled by NACWA/AWWA/WEF

SPU seeks to take advantage of the wealth of new research for evaluating affordability of drainage and wastewater rates
Important numbers for Customer Affordability Analysis

Median Household Income in Seattle = $93,481

20% Lowest Quintile Household Income = $31,400

200% of Federal Poverty Level for family of 4 = $51,500

King County Minimum Wage = $15.00
Customer Affordability - Household Burden

Household Burden - The Household Burden Indicator (HBI) is a metric calculated by dividing the total annual water service costs (water, wastewater and drainage) by the upper limit of the annual income of the 20th percentile (Lowest Quintile) of households in the Seattle.
Customer Affordability – Poverty Prevalence

Poverty Prevalence - The Poverty Prevalence Indicator (PPI) reports the percent of households within the City living at or below 200% of the Federal Poverty Level, as reported in the annual American Community Survey published by the US Census Bureau.
Additional Measures of Customer Affordability

Affordability Ratio (AR)- The AR$_{20}$ Ratio was developed by Professor Manny Teodoro.

Measures the percent of discretionary income being spent to pay for total annual stormwater, wastewater and water costs for a household at the Lowest Quintile Income level.

<table>
<thead>
<tr>
<th>Year</th>
<th>AR$_{20}$</th>
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<tbody>
<tr>
<td>2020</td>
<td>21.1%</td>
</tr>
<tr>
<td>2031</td>
<td>46.8%</td>
</tr>
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Bill in Hours at Minimum Wage - Developed by Professor Manny Teodoro.

Presents the number of hours of work per month at King County minimum wage ($15/hour) required to pay the typical bi-monthly total wastewater, stormwater and water service costs.
Next Steps

• Finish work
• Run alternative cash flow scenarios to calculate affordability measures.
• Discuss which measures best describe our customers situation