Affordability Benchmarks & Evaluation for the Combined Sewer Overflow Program

April 17, 2020

Seattle Public Utilities



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

Residential Indicator (Cost per Household as a % on MHI) Low Mid-Range High (1.0% to 2.0%) (Above 2.0%) (Bebw 1.0%) 0.0% 2.0% 1.0%0.0 Weak (Below 1.5) Permittee Financial Capability Indicator Medium Burden High Burden High Burden 1.5 Mid-Range (1.5 to 2.5) Low Burden Medium Burden High Burden 2.5 RI: 2.04% Strong (Above 2.5) PI: 2.7 Low Burden Low Burden Medium Burden

FCA Matrix Showing SPU's Position Based on FCA Model Result



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

A Report by a Panel of the

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION

Developing a New Framework for Community Affordability of Clean Water Services



Measuring Household Affordability for Water and Sewer Utilities

> Manuel P. Teodoro, PhD Texas A&M University mteodoro@tamu.edu

> > 20 September 2017

The Evolving Landscape for Financial Capability Assessment

> Clean Water Act Negotiations and the Opportunities of Integrated Planning





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 2020 6.4% ↓ 7% ⊙ ↑ 10% ⊗ 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.



6

Customer Affordability - Poverty Prevalence

POVERTY PREVALENCE 2020 21% → 35% × 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 AR₂₀ 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.



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Additional Measures of Customer Affordability



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 bimonthly 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

