City of Everett Public Works

EVERETT
WASHINGTON

August 14, 2024

Mr. William Weaver
WA Department of Ecology
PO Box 47696
Olympia, WA 98504-7696

Subject: Draft Financial Capability Assessment Guidance for the Puget Sound Nutrient General Permit

Dear Mr. Weaver,

The City of Everett supports Ecology's efforts assess the financial impacts of the Puget Sound Nutrient General Permit and to provide guidelines for the analysis. The City believes that the financial assessment should reflect the potential financial impacts on our most vulnerable community members through direct measures of the local impacts that include consideration of all of the City's compliance obligations, as well as our need to maintain infrastructure assets to sustain the expected level of service into the future. For these reasons, the City has reviewed Ecology's Draft Financial Capability Assessment Guidance document and is providing comments here with the intent to improve Ecology's approach to the assessment.

Ecology's Draft Financial Capability Assessment (FCA) Guidance appears to reflect Ecology's focus on water quality standards and soliciting financial information from wastewater utilities to submit to Ecology for Ecology's financial analysis of standards:

- "However, alternative 1 (based on 1997 FCA guidance) is intended for schedule development and negotiation, and Section 3 (based on 1995 Water Quality Standards (WQS) guidance) is intended to guide states in evaluating the economic impact of water quality decisions (2023 EPA guidance pg. 34)." (Ecology 2024, page 9)
- "Ecology's spreadsheet tool aligns calculations with Section 3 of EPA's 2023 guidance "economic impact analysis for WQS decisions for the public sector"." (Ecology 2024, page 9)

Ecology's Draft Financial Capability Assessment (FCA) guidance emphasizes that detachment from the importance of schedule and a lack of understanding of its importance to wastewater utilities.

- **"We also emphasize that results, for purpose of the Nutrient Permit, are not intended for schedule negotiation."** (Ecology 2024, p. 15)

Ecology's approach seems to contradict the clear direction in the Puget Sound Nutrient General Permit (PSNGP) that explicitly calls for the AKART analysis to address an attainable implementation schedule:

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- "Section S6.C. AKART ANALYIS Subpart f. Attainable implementation schedule that includes funding, design and construction of infrastructure improvement capable of achieving and maintaining AKART." (Ecology 2021)

Wastewater utilities are focused on economically managing wastewater to satisfy multiple regulatory compliance requirements for all customers, as well as maintaining the viability of all of their infrastructure assets, to sustain the current level of serve at a cost that customers can afford. Consequently, wastewater utilities are interested in the financial analysis of the impact of compliance with new regulatory requirements to inform appropriate compliance schedules that are feasible, affordable, and reflect local community priorities for investments. For considerations of Environmental Justice analysis, wastewater utilities are most interested in the direct impact of customer rates on those most economically vulnerable in their local community, as represented by the Lowest Quintile Poverty Income (LQPI) metric.

Provide Realistic Rate Impacts

In federal guidance, EPA includes Alternative 2 to provide a more realistic representation of financial impacts by including the entire schedule of projects in a cash flow analysis. The intent is to represent realistic wastewater utility bills that are within reasonable bounds when establishing compliance schedules.

- "Unlike Alternative 1, EPA has not recommended benchmark percentages of household income for Alternative 2. However, EPA intends to keep the percentage of household income spent on wastewater utility bills within reasonable bounds when establishing compliance schedules. Where drinking water costs are substantial and impacting households, a community may submit information on those costs as part of its financial and rate model. See Section II.c.1 for more direction. Schedules developed using Alternative 2 should be generally consistent with the recommended scheduling boundaries in Exhibit 9. Communities are encouraged to provide local information to EPA to support any predictions of a likely occurrence of rate shock. Other Metrics, such as drinking water costs, may also impact rate shock." (EPA 2024)

Ecology should include Alternative 2 in the financial capability assessment guidance for Puget Sound. Although Alternative 2 requires additional information and supporting analysis for cash flow, it should be provided as an option because it provides a more complete representation of financial impacts. Further, it should be tailored for application to Puget Sound by cash flow forecasts projecting the customer bills as a percentage of the Lowest Quintile Income, not the Medial Household Income (MHI), for a direct measure of the impact on the economically challenged members of the community. Further, Ecology should acknowledge in the financial capability assessment guidance for Puget Sound that wastewater utility bills must be kept within reasonable bounds, just as EPA has acknowledged in the federal FCA guidance.

Eliminate Continued Reliance on Median Household Income (MHI)

Ecology's adaptation of EPA's federal FCA analysis continues to rely on Median Household Income (MHI) metrics in the financial capacity assessment, which do not represent the disproportionate impact of utility rates on the working poor who are the very community that Environmental Justice considerations are intended to protect. Use of MHI is inappropriate for an Environmental Justice assessment of affordability because it misrepresents the local community and fails to characterize all of the economic burdens of households who are the most challenged to pay for their wastewater bill.

Assessing the direct impact of utility rates on the working poor was the entire motivation for use of the Lowest Quintile Income as a direct measure of the impact on economically challenged community members. EPA's continued reliance on MHI metrics reflects EPA's other nationwide considerations, such as wet weather compliance consent decrees. Those EPA considerations are not related to the Puget Sound Nutrient General Permit (PSNGP). Ecology's financial capability assessment should reflect the direct impact on financially challenged members of the community by use of the Lowest Quintile Income for a legitimate Environmental Justice analysis. Further, that should not be diluted by continued reliance on MHI metrics in the Financial Capability Assessment Analysis. Measures of community impacts should be based on local economic metrics undiluted by state or nationwide metrics.

Ecology's spreadsheet tool inappropriately dilutes consideration of the Lowest Quintile Income in the Lowest Quintile Poverty Indicator (LQPI) to only a 25% fraction of the LQPI in a mixture with other factors:

- "Inputs into the LQPI (other than "Trend in Household Growth") are evaluated using a ±25% benchmark to national.15 This bracketing is a commonly used methodology to characterize outliers on either end of the data distribution. Using a ±25% benchmark closely aligns with the middle quintile of data for the parameter, which can characterize the "middle class"." (Ecology 2024, p. 15).

Insensitivity of Ecology's FCA Spreadsheet Tool

As a test application of Ecology's spreadsheet FCA tool using realistic entries representing baseline and project conditions reveals a surprising lack of sensitivity to the magnitude of project costs. The results in the Expanded Financial Capability Assessment Analysis are similar in terms of the Low, Mid-Range, or High Impact over a very broad range of Project Costs. This apparent insensitivity to project cost input was revealed in preliminary investigations using the FCA spreadsheet tool. The City's projected near-term wastewater treatment plant capital improvement plan costs of $18 million were used as baseline status quo costs together with the best available City-specific financial data obtained from the most recent Audited Comprehensive Annual Financial Report. This baseline scenario received a ranking of "Low Impact" in the final FCA matrix assessment. In a sensitivity analysis, the project costs needed to be increased to extraordinarily high levels to even trigger a shift from "Low Impact" to a "Medium Impact" assessment in the FCA matrix. It seems unexpected that doubling the annual debt service and O&M expenses would result in only a "Medium Impact." This suggests that the formulation of Ecology's FCA tool may not be sensitive enough to reflect the severity of the financial impact of a doubling of costs.

Financial Alternatives Analysis

Ecology's Draft Financial Capability Assessment Guidance adds a new burden for wastewater utilities to conduct a Financial Alternatives Analysis. Ecology appears to have mimicked EPA's federal approach to including the Financial Alternatives Analysis mixed in with the guidance document for the financial capability assessment. Financing options, rate design, and utility financial management go well beyond the FCA to determine the financial impact of a proposed program. At this time, the City is not in a position to be able to complete the Financial Alternatives Analysis Worksheet. We have not considered or implemented financial alternatives, or determined why, or why not, specific tools are appropriate. These complicated considerations and a requirement to provide justifications should not be called for at this time.

Integrated Planning Framework

The Clean Water Act was amended in 2019 to codify EPA's Integrated Planning Framework as a new tool to inform discharge permitting, compliance schedules, and water quality based effluent limits. Ecology's Draft Interim Financial Capability Assessment Guidance appears to have omitted any consideration of the Integrated Planning Framework. EPA's FCA guidelines include Integrated Planning and clarified that an FCA can include the costs of all CWA obligations:

- "2. Integrated Planning Framework. In 2012, EPA developed the Integrated Municipal Stormwater and Wastewater Planning Approach Framework (Integrated Planning Framework) that offers a voluntary opportunity for a municipality to develop an integrated plan to meet multiple CWA requirements. Integrated planning is a process that municipalities can use to achieve clean water and human health goals while addressing aging infrastructure, changing population and precipitation patterns, and competing priorities for funding. With the release of the Integrated Planning Framework, the Agency clarified that an FCA could include the following costs: stormwater and wastewater; ongoing asset management or system rehabilitation programs; existing CWA related capital improvement programs; collection systems and treatment facilities; and other CWA obligations required by state or other regulators. On January 14, 2019, the Water Infrastructure Improvement Act (WIIA) (H.R. 7279) added a new section 402(s) to the CWA to include the 2012 Integrated Planning Framework." (EPA 2024)

Ecology's FCA guidance should be amended to include Integrated Planning and embrace inclusion of all CWA compliance costs in financial capability assessments.

Life Cycle Cost Analysis

Ecology's Draft Financial Capability Assessment Guidance notes that the PSNGP calls for treatment alternatives to be developed for achieving AKART for nitrogen removal on an annual basis and a seasonal average of 3 mg/L TIN from April through October. Ecology's FCA guidance fails to mention achieving effluent TIN of 3 mg/L is an extraordinarily level of treatment that is expected to be costly and result in other environmental impacts that should be carefully considered before being required. Ecology's FCA doesn't account for the costs of these externalities that impact the environment at this level of treatment.

EPA conducted life cycle cost analysis (LCA) to assess various levels of nutrient removal wastewater treatment considering treatment costs, as well as human health and ecosystem impacts (EPA 2023). EPA applied best practices for estimating eutrophication potential, ecosystem impacts, human health toxicity, ecotoxicity, fossil energy use, and global warming potential. EPA's analysis revealed the potential for pursuit of increasing levels of nutrient removal with diminishing potential to reduce receiving water eutrophication to result in other costs to the environment:

- "These results also demonstrate the significance of impacts associated with a broad range of impact categories not typically thought of in relation to wastewater treatment, particularly at the more advanced levels of nutrient removal, and indicate a possibility for shifting burdens from eutrophication to other categories of environmental impact." (EPA 2023)

Ecology's seasonal average of 3 mg/L TIN would be equivalent to EPA's Level 4 in the Life Cycle Cost Analysis (EPA 2023), the highest level of treatment short of reverse osmosis (Level 5). Costs increase as the treatment levels increase, as does energy use, chemical use, excess solids residuals generation, and damaging greenhouse gas emissions. Nitrogen removal at these levels requires supplemental carbon

addition using dangerous chemicals, such as methanol. At the same time, the effluent nutrients that remain to be removed is a smaller and smaller quantity with less and less of an impact on receiving waters. Costs and complexity increase to accomplish less and less in terms of nutrient reduction and that is accompanied by environmental impacts from energy use, chemical use, and GHG emissions. This is why the EPA life cycle cost analysis cautions that careful consideration be given to lower nutrient levels:

- "First, clear trade-offs in cost and potential environmental impact were demonstrated between treatment level configurations. This suggests that careful consideration should be given to the benefits from lower nutrient levels compared to the potential environmental and economic costs associated with treatment processes used to achieve those levels." (EPA 2023)

Other Comments

Ecology's Draft Financial Capability Assessment Guidance appears to reflect a misunderstanding that wastewater utilities are somehow funded by local taxes, when in fact, wastewater utilities are enterprise funds that generate revenue from user charges, not tax assessments. Reference Section 2. Analytical Steps and Deliverables reads as follows:

- "Governments have the authority to levy taxes and distribute pollution control costs among households and businesses according to the tax base. Similarly, sewage authorities charge for services, and thus can recover pollution control costs through user fees." (Ecology Page 10).

Section 2. Analytical Steps and Deliverables should be revised to more accurately represent that wastewater utilities are funded through user fees.

The City welcomes an opportunity to discuss these comments with Ecology staff.

Sincerely,

Jeff Marrs
Assistant Public Works Director
City of Everett Public Works

REFERENCES

Ecology. 2024. Draft Interim Financial Capability Assessment Guidance Updated June 2024. Publication 24-10-034.

USEPA. 2023. 2023 Revision* to: Life Cycle and Cost Assessments of Nutrient Removal Technologies in Wastewater Treatment Plants. August 2021. EPA 832-R-21-006A. life-cycle-nutrient-removal-2023-update.pdf (epa.gov)

USEPA. 2024. Clean Water Act Financial Capability Assessment Guidance. March 2024 Revision*.

Financial Capability Assessment (FCA) Spreadsheet Tool
Review Comments
August 14, 2024

The following comments and questions apply to Ecology's FCA Excel spreadsheet tool.

General

1. Please address how do the proposed metrics and source data accompanying the FCA tool account for the rapid increase in inflation and significant changes in socioeconomic criteria since 2020?

FCA Tool Indices

1. Residential Indicator (RI)
    a. Water utility bills typically include drinking water, wastewater, and stormwater. The residential impacts of water utility costs are often not exclusive to just wastewater improvements. Emerging contaminants of concern, such as PFAS and 6-PPD-q are prompting new or developing regulatory limits that could significantly increase required costs for drinking water and storm water infrastructure. Though a wastewater service may be "low impact" per FCA guidance, including other water services can quickly move communities into a "high impact" category as costs easily double when including drinking water and stormwater. Measuring the impacts of wastewater exclusive of drinking water and stormwater is not representative of a "one water" approach that explores the affordability of all water services within a community.
    This "one water" theme is fundamentally represented when evaluating billing approaches, debt service requirements, bonds, and operations and maintenance expenses. Though a utility bill typically delineates costs between water service types, it does not send separate bills for each water service. Similarly, the proportional share of revenues, debts, and expenses is not always strictly compartmentalized between different water services. It is possible to quantify shares of CIP programs, revenue, debt service, etc. that are dedicated to wastewater, but often bond values and operational and administrative costs are not explicitly divided across water services in annual financial reporting. All water service costs should be included when evaluating the FCA guidance. As an example, the City of Everett's independent current FCA results (not including projected) for water and sewer are "Medium Impact" but if you combine the services, as they do in their billing approach, the results indicate an overall "High Impact". An increase in wastewater costs may be perceived as "low impact" per the current guidance, but it may be just enough of an increase in cost to tip the scales for a community with existing high drinking water costs. The FCA tool is not sensitive to the existing cost burden of a combined utility bill that includes wastewater, stormwater, and drinking water. Nor is it sensitive to the same customer base that receives separate utility billings for wastewater and drinking water. In some cases, the O&M and debt service expenses are combined for both drinking water and wastewater/stormwater. This suggests the FCA tool may only account for one half of the total water bill cost burden to customers. This may under-estimate the impact of proposed projects, especially for over-burdened members of the community.

b. Please address why the Residential Indicator (RI) does not consider current billing rates and projected rate changes on a high level? It appears that there is a benchmark value for acceptable rate increase percentages that could serve as a reference for projected cost impact scoring.

2. Financial Capability Indicator (FCI)

   a. FCA guidance is intended to capture impacts specific to wastewater, but bond values and ratings are typically associated with improvements made for all water services. A "One water" approach should be taken to ensure that the FCI is not misrepresenting "strength" in comparing overall water capability and exclusive wastewater capability. The FCA tool appears to overestimate a community's strength because it takes the strength of bonds that fund non-wastewater projects and applies that strength exclusively to wastewater. Comparison should be on a par basis such that if bonds include all water costs, the residential indicator (RI) should include all water costs.

   b. The sensitivity of the FCI regarding the *Property Tax Revenue Collection Rate (Line 803)* seems disproportionate. What is the basis for the national, industry, etc. benchmarks if the rate is primarily scored based on a percent range of 94-100%? For example, changing the tax collection rate from 98.00% to 98.01% can shift an overall result from "Low Impact" to "Medium Impact". EPA Guidance notes this metric as "*The property tax revenue collection rate is an indicator of the efficiency of the tax collection system and the acceptability of tax levels to residents*". How does the efficiency of the tax collection system and acceptability of tax levels relate to increases in wastewater or other water costs? Is it intended to be representative of utility billing efficacy and rate increase acceptance? More accurate billing-specific data are available that could better represent this indicator. This appears to be a metric that is insensitive with the basis of scoring distributed over 6 out of 100 possible points and is misrepresentative of a rate payer's acceptance of utility rate increases. Utility bill collection and rate increase data should be used to provide more representative metrics for wastewater.

   c. EPA Guidance states that for the FCI, various financial management indicators "*used to evaluate a permittee's financial management ability are property tax revenue as a percent of full market value of real property and property tax revenue collection rate*". Property tax collection rates are not representative of wastewater utility revenue collection rates. Property tax revenues are arguably more associated with populations not experiencing financial hardship. For example, homeowners paying property taxes as compared to burdened rate payers who may be renting a home. Better information is available that is more specific to a permittee to measure and represent utility bill collection rates. The tool uses the capability of existing wealthy populations (who own property and are probably paying their utility bill consistently) to measure the strength of utility bill collection rates. This may be misrepresentative since delinquent rate payers may not be real property owners or permanent residents.

   d. EPA Guidance states that "*Property Tax Revenues as a Percent of Full Market Property Value indicator can be referred to as the "property tax burden" since it indicates the funding capacity available to support debt based on the wealth of the community*". The "*wealth of the community*" and "*funding capacity available to support debt*" in this case appears to be misrepresentative of the real wealth of the community since it is

exclusively measuring the financial capabilities of individuals who are, for example, wealthy enough to own a home and pay the associated property tax. Additionally, the perceived "*funding capacity available to support debt*" assumes property tax revenues relative to full market property value, which can be highly volatile, is representative of funding capacity dynamics for infrastructure improvements that typically do not use property taxes as a funding source. It appears inaccurate to use financial performance indicators of a separate revenue source that doesn't fund wastewater services to represent wastewater utility financial capabilities. The tool inaccurately assumes property taxes are universally available as a funding source for utilities. It also misrepresents the true debt support availability of a community by evaluating the exclusive population of wealthy property owners and taxpayers.

e. Generally, the FCI tool appears to use metrics and measures that are not specific to funding and debt dynamics associated with wastewater infrastructure improvements. It appears that enough wastewater specific data is readily available for wastewater specific use in the FCI to evaluate a wastewater utility's specific billing rate collection success, debt support performance, etc.