

Delaware River Basin Commission

Socio Economic Evaluation in support of Highest Attainable Designated Use

April 15, 2021

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Resolution 2017-4

Section 6(g)

- (g) evaluation of the physical, chemical, biological, social and economic factors affecting the attainment of uses, as described in EPA's water quality standards regulations at 40 CFR 131.10(g)(1)-(6); and

https://www.state.nj.us/drbc/library/documents/Res2017-04_EstuaryExistingUse.pdf

40 CFR 131.10(g)(1)-(6)

(g) States may designate a use, or remove a use that is *not* an existing use, if the State conducts a use attainability analysis as specified in paragraph (j) of this section that demonstrates attaining the use is not feasible because of one of the six factors in this paragraph. If a State adopts a new or revised water quality standard based on a required use attainability analysis, the State shall also adopt the highest attainable use, as defined in § 131.3(m).

(1) Naturally occurring pollutant concentrations prevent the attainment of the use; or

(2) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or

(3) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place; or

(4) Dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use; or

(5) Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses; or

(6) Controls more stringent than those required by sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact.

Focused on 2 Guidance Documents / Sets of Metrics



United States
Environmental Protection
Agency

Office of Water
Washington, DC 20460

800B21001
January 2021

2021 Financial Capability Assessment Guidance

January 2021

Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector

April 17, 2019

Prepared for The American Water Works Association, National Association of Clean Water Agencies, and Water Environment Federation by R. Raucher, PhD. and J. Clements Corona Environmental Consulting E. Rothstein, CPA Galardi Rothstein Group J. Mastracchio, CFA and Z. Green Raftelis Financial Consultants

EPA 2021 metrics & data

EPA 2021	Worksheet 1 - Cost Per Household	Current Annual Operations and Maintenance Expenses (Excluding Depreciation)
		Current Annual Debt Service (Principal and Interest)
		Estimated Annual Operations and Maintenance Expenses (Excluding Depreciation)
		Projected Annual Debt Service (Principal and Interest)
		Residential Share of Total WWT and CWA Costs
		Total Number of Households in Service Area
	Worksheet 2 - Residential Indicator	Census Year MHI
		MHI Adjustment Factor
	Worksheet 3 - Bond Rating	Most Recent General Obligation Bond Rating
		Date of Bond Rating
Rating Agency		
Most Recent Revenue (Water/Sewer or Sewer) Bond		
Date		
Rating Agency		
Bond Insurance (Yes/No)		
Rating		
Summary Bond Rating		
Worksheet 4 - Overall Net Debt as a Percent of Full Market Property Value	Direct Net Debt (G.O. Bond Excluding Double-Barreled Bonds)	
	Debt of Overlapping Entities (Proportionate Share of Multijurisdictional Debt)	
	Full Market Value of Property	
Worksheet 5 - Unemployment Rate	Unemployment Rate – Permittee	
	Source of above	
	Unemployment Rate – County (use if permittee’s rate is unavailable)	
	Source of above	
	Average National Unemployment Rate	
Source of above		
Worksheet 6 - Median Household Income	National MHI	
Worksheet 7 - Property Tax Revenue as a Percent of Full Market Property Value	Total Property Tax Revenues	
Worksheet 8 - Property Tax Revenue Collection Rate	Property Taxes Levied	

New Framework 2019 metrics & data

New Framework 2019	Cost Per Household (CPH)	Median Household Income (MHI) Consumer Price Index (CPI) multiple years
	Cost of Basic Water Use as % of Upper Limit of Lowest Income Quintile	Wastewater rate per gallon
		Water rate per gallon
		Average people per household
		Portion of Taxes for Wastewater, Water, and Stormwater Per Year
		Annual Stormwater Cost
		Census Data Upper Limit of the 20th Income Percentile for the Service Area
	Weighted Average Residential Index	Total Households
		Households per Census Tract
		% Households in Income Bin
		Income Bin Mid-Point
	Affordability Ratio at the 20th Income Percentile	Census Tract-Specific Average Bill or Minimum Bill for Water Services
		Census Data 20th Income Percentile for the Service Area
		Essential costs (Housing + Food + Healthcare + Home Energy + Taxes)
Wastewater Rate Per Gallon		
Hours at Minimum Wage	Water Rate Per Gallon	
	Wastewater Rate Per Gallon	
	Local Minimum Wage	
Percent of Households Delinquent in Paying Bills	Delinquent Households (utility bills)	
Percentage of Households Below the Federal Poverty Level	U.S. Census Data County or Metropolitan/Micropolitan Statistical Area (MSA) % Federal Poverty Level (FPL)	
Percentage of Households Below the Supplemental Poverty Measure	U.S. Census Data County or MSA % Supplemental Poverty Measure (SPM)	
Percentage of Households Below the Living Wage	% of Community Below a Local Living Wage Measure	
Percentage of Household Income Spent on Shelter Cost	HUD Housing Costs	
	Total Utilities Costs	
	% of Households Spending > 30% of Income on Rent + Utilities	
Percentage of Households Receiving Public Assistance	Number of Households in Service Area Receiving Some Form of Public Assistance	
	Total Households in Service Area	

Available Data

Census Data Tables

- DPO3 – Selected Economic Characteristics
- S1101 – Households and Families
- S0101 – Age and Sex
- S1701 – Poverty Status in the Past 12 Months
- B19080 - Household Income Quintile Upper Limits
- S1901 – Income in the Past 12 Months

Other

- | | |
|---|---|
| <ul style="list-style-type: none"> ▪ https://www.huduser.gov ▪ https://livingwage.mit.edu ▪ https://www.healthcare.gov ▪ https://www.fns.usda.gov ▪ https://www.puc.pa.gov ▪ https://www.eia.gov ▪ https://www.bls.gov | <p>Fair Market Rent (FMR): Housing & Utility Costs</p> <p>Estimated Living Wage</p> <p>Healthcare Costs</p> <p>Food Costs</p> <p>Utility Bills</p> <p>Utility Bills</p> <p>Unemployment Rates</p> |
|---|---|



The screenshot shows the 'Advanced Search' page on the Census Bureau's data portal. The browser address bar shows the URL 'https://data.census.gov/cedsci/advanced'. The page header includes the 'United States Census Bureau' logo and a search bar. Below the header, there is a breadcrumb trail '// Search / Advanced Search' and the main heading 'Advanced Search'. A text input field for 'Table ID (e.g., DP05)' is visible. The main content area is titled 'Narrow search with filters' and includes a 'FIND A FILTER' section with a search icon and the example text 'e.g. 336111 - Automobile Manufacturing'. A 'BROWSE FILTERS' section is partially visible, listing categories such as 'Topics', 'Geography', 'Years', 'Surveys', and 'Codes'.

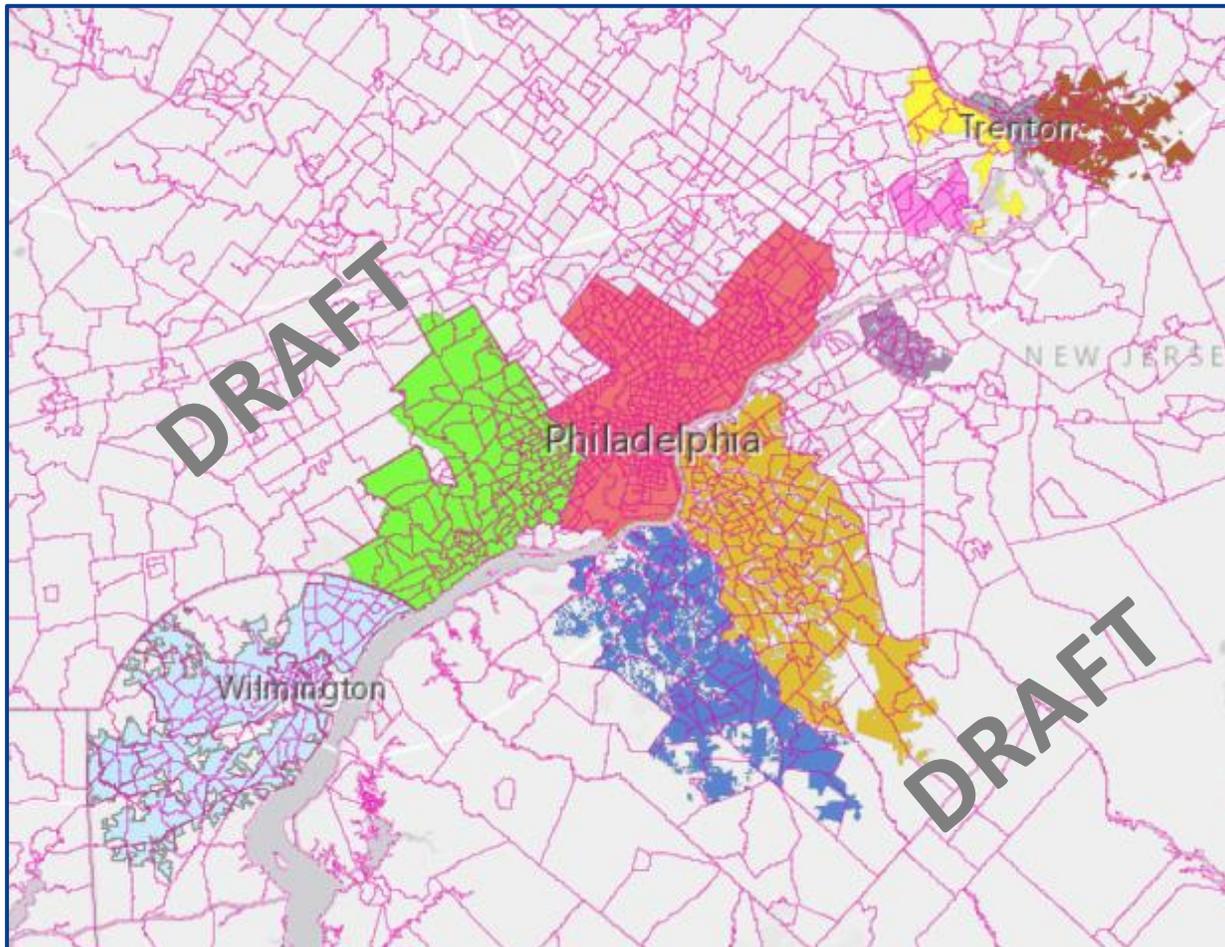
Needed Data

- Water and wastewater rate(s) per gallon
- Portion of property owner's taxes levied for wastewater, water, and stormwater services per year
- Annual stormwater cost
- Number of delinquent households delinquent in paying for water and/or wastewater bills
- Current annual operations and maintenance expenses (excluding depreciation)
- Current annual debt service (principal and interest)
- Estimated annual operations and maintenance expenses (excluding depreciation)
- Projected annual debt service (principal and interest)
- Residential share of total wastewater treatment and Clean Water Act costs
- Bond rating information
- Direct net debt
- Debt on overlapping entities
- Full market value of property/ properties
- Total property tax revenues
- Total property taxes levied

- From the Tier 1 facilities
- Anticipated request, early summer 2021

- Estimated / Placeholder values in the meantime

Service Area – Census Data Matching



- Confirm service areas with utilities
- Determine which census tracts are in each service area (and how much)
- Subset census data by tracts in service area

Scope of Evaluation



Project Notes

- We are at the beginning of this process, not the end
 - *We don't have all the answers now*
- Will revisit with WQAC throughout the effort
- Data tables and scripts will be available
- Draft results by 4th Quarter 2021 (CY)



Questions & Discussion

