



Delaware and Surrounding States Water Rates Dashboard

Delaware Rural Water Association Technical Conference

February 27, 2019 | Harrington, DE

www.efcnetwork.org







This program is made possible under a cooperative agreement with the U.S. EPA.



About the Environmental Finance Center Network (EFCN)

The Environmental Finance Center Network (EFCN) is a university-based organization creating innovative solutions to the difficult how-to-pay issues of environmental protection and improvement. The EFCN works with the public and private sectors to promote sustainable environmental solutions while bolstering efforts to manage costs.

The Smart Management for Small Water Systems Program

This program is offered free of charge to all who are interested. The Program Team will conduct activities in every state, territory, and the Navajo Nation. All small drinking water systems are eligible to receive free training and technical assistance.

What We Offer

Individualized technical assistance, workshops, small group support, webinars, eLearning, online tools & resources, blogs



The Small Systems Program Team

- Environmental Finance Center at The University of North Carolina at Chapel Hill
- Southwest Environmental Finance Center at the University of New Mexico
- Syracuse University Environmental Finance Center
- Environmental Finance Center at Wichita State University
- EFC West
- Environmental Finance Center at the University of Maryland
- New England Environmental Finance Center at the University of Southern Maine
- Great Lakes Environmental Infrastructure Center
- Government Finance Officers Association (GFOA)
- National Association of Development Organizations (NADO)





Areas of Expertise



Asset Management

Rate Setting and Fiscal Planning



Communication and Decision-Making Strategies







Controlling Energy Costs



Accessing Infrastructure Financing Programs



Workforce Development



Water Conservation Finance and Management



Collaborating with Other Water Systems



Resiliency Planning

Managing Drought



Small Systems Blog

Learn more about water finance and management through our Small Systems Blog! Blog posts feature lessons learned from our training and technical assistance, descriptions of available tools, and small systems "success stories."

efcnetwork.org/small_systems_blog/



Blog



Magdalena, New Mexico: A Success Story from the Smart Management for Small Water Systems Project Written by: Allison Perch Allison Perch is a Program Coordinator with the Environmental Finance Center at the University of North Carolina. What can a small town do when the Financial health of its water system is at risk? This is the question that Stephanie Finch, the town clerk and treasurer for the ...



The Virtuous Cycle: Internal Energy Revolving Funds for Small Water Systems

Written by: David Tucker David Tucker is a Project Director with the Environmental Finance Center at the University of North Carolina. How can small (and large) water systems pay for energy efficiency and renewable energy, helping cut utility costs? As energy is often the largest variable expense in a water system's operating ...



Smart Management for Small Water Systems Program Newsletter | Fall 2015

View Full Issue The Environmental Finance Center Network has published the third issue in a series of quarterly newsletters. The Fall 2015 Program Newsletter announces



Which states have rates dashboards?



What states have rates dashboards?





This Presentation:

Rates Dashboard

Explain how the dashboard works





Hello my name is

Delaware and Surrounding States Water Rates Dashboard

Introduction to the Dashboard



Where do the data come from?





Survey Partner: University of Delaware Water Resources Center



Water Resources Center Institute for Public Administration, School of Public Policy and Administration, About DWRC - NIWR WRA - Public Service Research Education GIS Publications Home / Public Service / Synthesis of Water Rates in Delaware and Contiguous States **Related Resources** Synthesis of Water Rates in Delaware and Contiguous Water Rates in Delaware and Surrounding States, Draft States Report 2017 Water Rates in Delaware and Surrounding States The University of Delaware's Water Resources Agency in the (2015) Synthesis of Water Rates in Delaware and Contiguous States Institute for Public Administration, conducted an inventory of Water Rates in Delaware and Surrounding States, Draft residential water rates for public- and investor-owned water (2014)utilities within Delaware and its adjoining states-Maryland, Water Rates in Delaware and Surrounding States, Draft (2013) New Jersey, and Pennsylvania. The draft 2014 report is an Water Rates in Delaware and Surrounding States, Final update of water-rate surveys prepared in 1996, 2000, 2004, 2008, 2011, 2012, and 2013. Draft (2012) Water Rates in Delaware and Surrounding States, Final The purpose of this inventory is to summarize and compare Draft (2011) residential water rates for Delaware and the surrounding Synthesis of Water Rates in Delaware and Contiguous states based on a compilation of water-rate data from water States (2008) purveyors collected via telephone, e-mail, fax, and websites. Newark Water Rates (2008) The data are presented graphically to provide a comparison Synthesis of Water Rates in Delaware and Contiguous of the water rates in the Delaware Valley region and illustrate States (2004) the change in water rates over time. The authors intend the

 Economic Synthesis of Water Rates in Delaware and Surrounding River Basins (2000)

Water Rates in Delaware and Surrounding States, Draft Report 2017

reports and data to be used by water providers; federal, state,

and local water agencies; and the public.



Additional Data Sources





Who is in the survey group?







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Compare Your Rates to Rates of Systems that have Similar ...





Darkest green band = middle 50% of utilities

Half of all utilities in your peer group have bills that fall within this range





Light green bands = the 15% below and above the middle 50%

15% of utilities in your peer group have bills **lower** than the middle 50%, 15% have bills higher than the middle 50%





Both greens combined = 80% of utilities

The majority of all utilities in your peer group have bills that fall within the range of the green bands





Yellow = the lowest and highest 10% of utilities

10% of utilities
in your peer group
have bills lower than
90% of other utilities,
10% have bills higher
than 90% of utilities







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Dial: Conservation Signal

Colored bands = quartiles

In this example, the marginal price of 1,000 gallons is below the 25th percentile among its peer group, promoting a fairly weak conservation signal







These two

dials can be

compared to

common







Dial: Median Affordability

Darker shades of orange indicate a higher percentage of MHI spent annually on bills

The percentage of median household income (MHI) spent annually on water bills

Median Affordability

Annual Water Bills as % MHI







SCHOOL OF GOVERNMENT Environmental Finance Center	aware and Surrou	nding States Water Rates Dashb Rates as of April Last updated: January 15	2017
▼ [Harrington *	
Rates Comparison Characteristic	cs Links		Edit Data or Add Utility
Utility Owner			
Ownership type	Municipality		
Primary County	Kent County		
Primary service area	Harrington city		
Date Rates Effective	unknown		
	Select comparison group		Statewide Stats
Number of Customs	Harrington city	Median for all utilities in survey	
Number of Systems Est. Number of Connections	1 222	51	51
	1,223	3,787	
Est. Service Population	3,174	9,900	2.61
Average Household Size Median Household Income	3.04	2.57	2.61
Poverty Rate	\$39,761 20.63%	\$54,218 12.19%	\$61,017 12.04%
	20.0370	17.1970	12.0470









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Red = costs exceed revenues; a concern for financial sustainability

<u>Operating revenues</u> Operating expenses (including depreciation)



Operating Ratio Incl. Deprec. 2017





Yellow = revenues are sufficient to cover costs, but could be problematic in long-term

<u>Operating revenues</u> Operating expenses (including depreciation)





Green = revenues are likely enough to pay for day to day costs as well as long-term goals

<u>Operating revenues</u> Operating expenses (including depreciation)





Yellow = revenues may be "too" good

<u>Operating revenues</u> Operating expenses (including depreciation)







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When To Use This Tool

- As part of your annual rate review
- When presenting to boards or other decision makers on the need to change rates
- When explaining rates to customers
- For private systems, as part of your PUC rate case



Delaware: Statewide Analysis

In Delaware, Most Surveyed Utilities Have a Constant, Non-Zero, Base Charge





Delaware: Statewide Analysis





Delaware: Statewide Analysis





Key financial indicators in a jiffy

Three Types of Costs

- Operating Costs—what you need to run the system day in and day out
- Capital Costs—rehabilitation and replacement of existing infrastructure and new infrastructure
- Debt Service—what you owe on loans and bonds

Two Types of Revenues

- System Income—Money from rates, tap fees, system development charges, grants, penalties, other sources
 - Note: To be a true enterprise fund, not taxes!

Debt—Money from bonds and loans



Operating Ratio

_ Operating Revenues

Operating Expenses

Natural Benchmark: > 1.0

A measure of self sufficiency.



Quick or Current Ratio

Quick Assets (unrestricted, excluding Inventories and Prepaid Items)

Current Liabilities

Accepted Benchmark: > 2

A measure of short-term liquidity: ability to pay your current bills



Days Cash on Hand

Unrestricted cash and cash equivalents \times 365

Operating Expenses – Depreciation

Benchmark: At the <u>very least</u>, enough to last a billing cycle (or until you expect a substantial inflow of cash)

A measure of ability to weather a significant temporary reduction in revenue



Debt Service Coverage Ratio

Operating Revenues - Operating Expenditures (excludes depreciation)

Principal + Interest Payments on Long Term Debt

Natural Benchmark: > 1

A measure of the ability to pay debt service with revenue left over after operating expenditures



Infrastructure Condition*

*Caveat - This indicator is only as good as your depreciation schedule and even then historic pricing is likely to distort the results.

Total Accumulated Depreciation
Total Assets Being Depreciated
Benchmark: Don't get close to 100%

A measure of how much of your total assets have already depreciated. As you approach 100%, your system is near the end of its expected life.



Can You Afford Capital Improvements?

- Is your utility (public enterprise) self sufficient?
- Can your utility meet its short term obligations?
- If your customers stop paying their bills, how long can you maintain operations?
- Are you able to cover your debt service after paying for your day to day operations?
- How much of your utility's expected life has already run out (and how much is left)?

Debt Service Coverage Ratio Asset Depreciation Operating Ratio

Quick Ratio

Days Cash on Hand

Can You Afford Capital Improvements?

Operating

Ratio

Quick Ratio

Debt Service

Asset

Depreciation

- Is your utility (public enterprise) self sufficient?
- Can your utility meet its short term obligations?
- If your customers stop paying their bills, how Days Cash on Hand long can you maintain operations?
- Are you able to cover your debt service after paying for your day to day operations? **Coverage Ratio**
- How much of your utility's expected life has already run out (and how much is left)? Correct Order



Visit the EFCN Website – www.efcnetwork.org

for more information on upcoming events, funding, and resources.







Upcoming Events Calendar

Select "Upcoming Events" under the Workshops & Webinars Tab.









Туре	Date/Time	Event
-	03/09/2017 2:00 pm - 3:00 pm	WEBINAR I Preparing Winning Financing Applications for Water Infrastructure Projects
<u>F</u> 2	03/22/2017 2:00 pm - 3:00 pm	WEBINAR I Water Audits and Water Loss Control: Entering Your Data into the Spreadsheet
-	03/30/2017 9:00 am - 4:30 pm	Maryland I Rates and Finance Workshop for Small Water Systems Easton Utilities, Easton MD
-	04/04/2017 1:00 pm - 2:00 pm	WEBINAR: Workforce Development: An Overview of Key Components
i	05/11/2017 9:00 am - 4:30 pm	Virginia I Rates and Finance Workshop for Small Systems The Institute for Advanced Learning and Research, Danville Virginia
i	05/25/2017 9:00 am - 4:30 pm	Arkansas I Rates and Finance Workshop for Small Water Systems Beaver Water District, Lowell AR
•		Pennsylvania I Rates and Finance Workshop for Small Water Systems Pennsylvania American Water Co, New Castle PA



Funding Tables By State

Select "Funding Sources by State" under the Resources Tab.





Funding Sources by State

Click on the map below to view funding sources for each state:

Note: Some states may have additional resources listed below the map.



Click on an individual state to view funding table.



Orogen Water and Wasterwater Punding S



Request Technical Assistance

Select "Request Assistance" under the Assistance Tab off the EFCN homepage to access and submit the TA request form electronically.

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REQUEST ASSISTANCE





E-Learning Modules

Select "E-Learning Modules" under the Resources Tab off the EFCN homepage.

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TRAININGS > E-LEARNING MODULES				Resource Library		
				E-Learning Modules		
				Funding Sources by St	ate	
		E-Lea	rning Mo	Map of Water and Was	tewater Rates Dashboards	

As part of its continued effort to provide resources and training to small water systems, the Environmental Finance Network is creating E-Learning modules on finance and management topics for system managers.

E-Learning modules provide training through pre-recorded content. You will be able to access the content, watch presentations, complete quizzes and exercises, and access tools and resources at your own pace.

Financial Sustainability for Small Systems

Click Here to Access the Course on AWWA's website

This eLearning course is made possible through a USEPA grant for small systems training in conjunction with the EFCN's training partner, AWWA.



Resource Library

Select "Resource Library" under the Resources Tab off the EFCN homepage.



View All Tools I View All Publications I View All Posts

For an overview of some of the tools and resources available in our Resource Library, please view our Tools and Resources flyer.

What does your system need help with?

+ We treat more water than we sell.



Resource Library Continued...

Click on a what your system needs help with to reveal tools and publications related to that topic.

Asset Management: A Handbook for Small Water Systems

We have insufficient revenue to cover our cost	ts.
Tools	
February 16, 2017	November 7, 2016
Online Water Rate Checkup Tool	Modelo de Análisis para las Tarifas de Agua y Aguas Residuale
February 17, 2016	January 26, 2016
Water Utility Customer Assistance Program Cost Estimation Tool	Financial Health Checkup for Water Utilities
September 3, 2014	August 15, 2013
Water & Wastewater Residential Rates Affordability Assessment Tool	Rates and Financial Benchmarking Dashboards
December 16, 2012	November 20, 2012
Plan to Pay: Scenarios to Fund your C.I.P.	Water & Wastewater Rates Analysis Model
November 15, 2012	November 4, 2012
Dashboard for Using Capital Reserve Fund to Avoid Rate Shock	Loan Analysis Tool
Publications	
April 14, 2014	August 29, 2013
Rural and Small Systems Guidebook to Sustainable Utility Management	Setting Small Drinking Water System Rates for a Sustainable Future
August 29, 2013	August 27, 2013

Designing Rate Structures that Support Your Objectives





Thank you for participating today. We hope to see you at a future workshop!

www.efcnetwork.org





