



Smart Management for
Small Water Systems

Rates and Finance Workshop for Small Water Systems

09/21/17| St. George, UT

www.efcnetwork.org



UNC
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FINANCE CENTER



American Water Works
Association

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



Background

Applying for a grant or a loan?



The Debt Market

- Why Borrow?
- Water infrastructure has a long useful life. You may wish to amortize the loan over the life of the equipment so that the people who benefit from the system pay for it



When You Need Cash Now: The Debt Market

- Lenders will look at your creditworthiness, your ability to repay the debt, in determining whether to loan to you and your interest rate
- Certain best practices can increase your chances of funding



Using Metrics from a Rates Dashboard

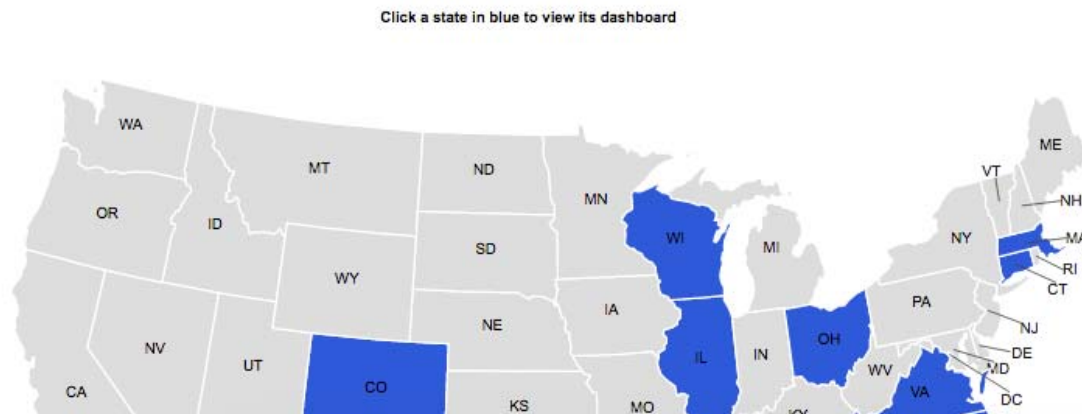


Rates Dashboards

Select “Map of Water and Wastewater Rates Dashboards” under the Resources Tab, and click on any state in blue to view its dashboard.

The screenshot shows the EFCN website header with the logo and tagline "Innovative Finance Solutions for Environmental Services". The navigation menu includes links for HOME, ABOUT, WORKSHOPS & WEBINARS, ASSISTANCE, RESOURCES, BLOG, and ARCHIVES. The RESOURCES dropdown menu is open, showing options like Resource Library, E-Learning Modules, Funding Sources by State, and Map of Water and Wastewater Rates Dashboards, which is highlighted with a yellow box. Below the navigation bar, a breadcrumb trail reads "MAP OF WATER AND WASTEWATER RATES DASHBOARDS". The main heading "Map of Water and Wastewater Rates Dashboards" is partially visible.

This map shows Water and Wastewater Rates Dashboards created by the EFCN:





Example Dashboard:

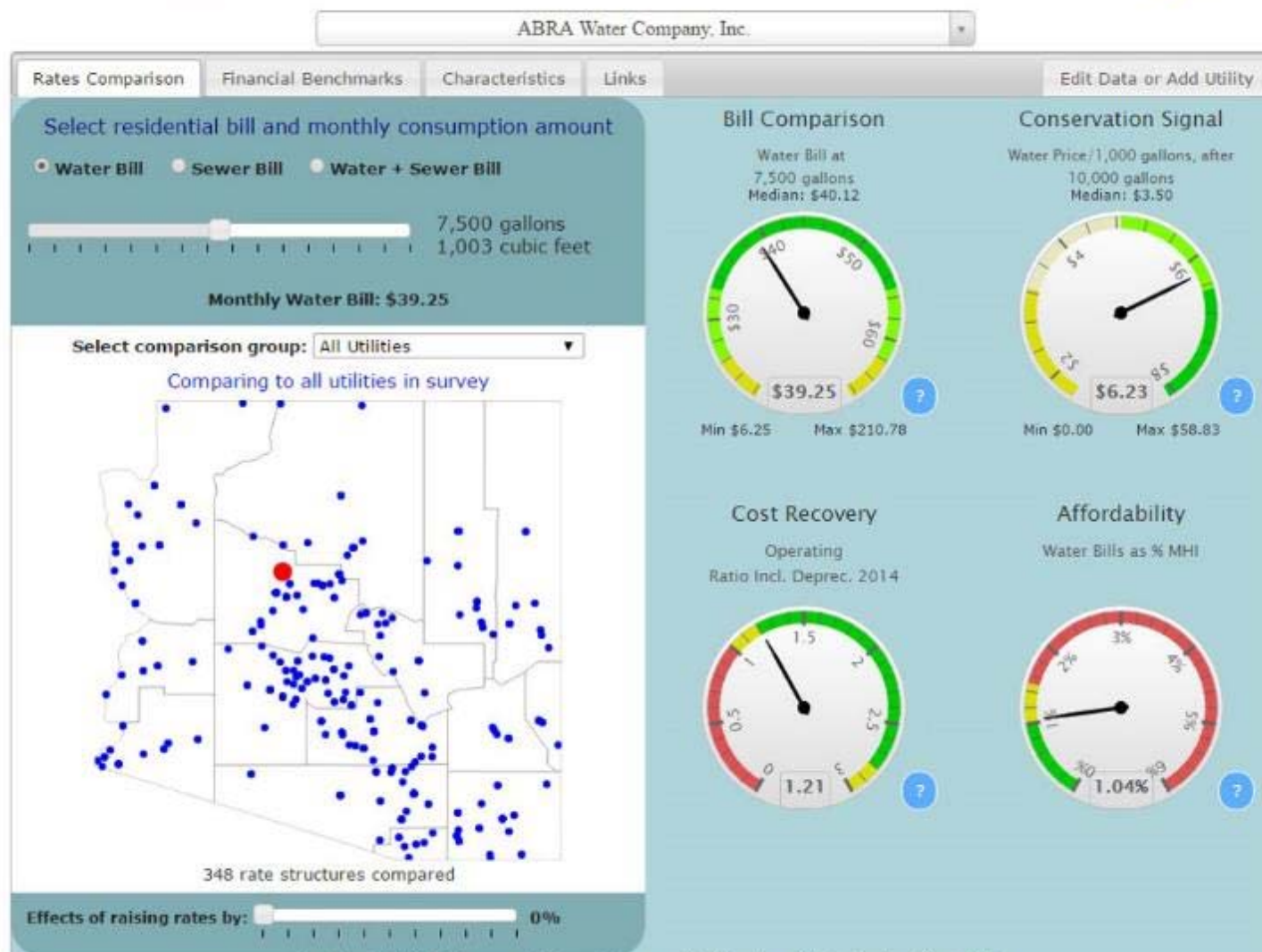


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AZ Water and Wastewater Rates Dashboard

Rates as of April 2015

Last updated: September 9, 2015



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Example
Dashboard:



AZ Water and Wastewater Rates Dashboard

Rates as of April 2015

Last updated: September 9, 2015



ABRA Water Company, Inc.

Rates Comparison

Financial Benchmarks

Characteristics

Links

Edit Data or Add Utility

Select service provided. (Display will not change if the utility has a combined water and sewer enterprise fund.)

☒ Water Bill ☐ Sewer Bill ☐ Water + Sewer Bill

Ability to cover expenditures and debt service

Op. Rev. / Op. Expend.



Debt Service Coverage Ratio



Measures of liquidity

Days Cash on Hand



Cost Recovery

Operating Ratio (Incl. Dep.)





Benchmarking



Can You Sleep at Night?

Is your system self sufficient?

Operating Ratio

Are you able to cover your debt service after paying for your day to day operations?

Debt Service
Coverage Ratio

If your customers stop paying their bills, how long can you maintain operations?

Days Cash on
Hand

Can your system meet its short term obligations?

Current
Ratio

How much of your system's expected life has already run out?

Asset
Depreciation



Whiteboard Video: Financial Benchmarking for Water Utilities

<http://www.waterrf.org/Pages/Projects.aspx?PID=4366>





Quick Review of Key Financial Indicators

Operating Ratio

Current Ratio

Debt Service
Coverage Ratio

Days of Cash
on Hand

Asset Depreciation



Is your system self-sufficient?



Operating Ratio

OPERATING REVENUES



OPERATING EXPENSES



DEPRECIATION

ANNUAL COST OF WEAR
AND TEAR ON THE SYSTEM

Include or
Exclude

Read more: <http://efc.web.unc.edu/2015/02/27/operating-ratio/>



**Are you able to cover your debt
service after paying for your day
to day operations?**



Debt Service Coverage Ratio

OPERATING REVENUES – OPERATING EXPENSES
(EXCLUDING DEPRECIATION)

PRINCIPAL + INTEREST PAYMENTS
ON LONG TERM DEBT

Read more: <http://efc.web.unc.edu/2015/04/23/debt-service-coverage-ratio/>



Debt Service Coverage Ratio

OPERATING REVENUES – OPERATING EXPENSES
(EXCLUDING DEPRECIATION)

PRINCIPAL + INTEREST PAYMENTS
ON LONG TERM DEBT

> 1.2

Read more: <http://efc.web.unc.edu/2015/04/23/debt-service-coverage-ratio/>



**Can your system meet its short
term obligations?**



Current Ratio

**UNRESTRICTED CURRENT ASSETS
EXCLUDING INVENTORIES AND
PREPAID ITEMS**



CURRENT LIABILITIES

Read more: <http://efc.web.unc.edu/2015/10/01/key-indicator-current-ratio/>



**If your customers stop paying
their bills, how long can you
maintain operations?**



Days Cash on Hand

UNRESTRICTED CASH AND INVESTMENTS

**OPERATING EXPENSES EXCLUDING
DEPRECIATION & AMORTIZATION / 365**

Read more: <http://efc.web.unc.edu/2015/06/24/days-cash-on-hand/>



**How much of your system's
expected life has already run out?**



Asset Depreciation

$$= \frac{\textit{Accumulated Depreciation}}{\textit{Gross Plant and Equipment}}$$

Caveat: this indicator is only as accurate as your depreciation schedule, and even then historic pricing is likely to distort the results.



Where Do We Get Started?

- Local governments: audited financial statements
- Non-governments: balance sheets, shareholder reports, annual reports, etc.


BAVARIA STATEMENT OF NET ASSETS PROPRIETARY FUND JUNE 30, 2011	
Assets	Water and Sewer Enterprise Fund
Current Assets:	
Cash - operating	\$ 368,101
Accounts Receivable (Net)	60,346
Prepaid Insurance	5,856
Total Current Assets	434,293
Noncurrent Assets:	
Restricted cash	177,208
Capital assets	
Land	209,556
Buildings	22,082
Improvements other than buildings	5,873,769
Machinery and equipment	896,073
Construction in progress	1,454,079
Less: Accumulated depreciation	(2,883,225)
Deferred Charge	39,833
Total noncurrent assets	5,781,215
Total Assets	6,421,478
Liabilities	
Current Liabilities:	
Accounts Payable	21,090
Accrued Expenses	2,767
Due to Other Funds	8,176
Customer Deposits	62,625
Deferred Subsidy Revenue	460,505
Current Portion of Long Term Debt	343,811
Total Current Liabilities	898,474
Noncurrent Liabilities:	
Compensated Absences	15,609
Revenue Bonds (Net of current portion)	233,357
Notes Payable (Net of current portion)	646,873
Total Noncurrent Liabilities	895,839
Total Liabilities	1,794,313
Fund Net assets	
Invested in capital assets, net of related debt	4,355,133
Restricted for debt service	114,583
Unrestricted	163,263
Total fund net assets	\$ 4,633,079


Financial Health Checkup for Water Utilities

<http://efc.sog.unc.edu> or <http://efcnetwork.org>

Find the most up-to-date version in Resources / Tools

Financial Health Checkup for Water Utilities



 **UNC ENVIRONMENTAL FINANCE CENTER**
Developed by the Environmental Finance Center at the University of North Carolina, Chapel Hill
<http://efc.sog.unc.edu>

 **Smart Management for Small Water Systems**
A resource for water systems through the Environmental Finance Center Network's Smart Management for Small Water Systems project, funded under a cooperative agreement with the U.S. Environmental Protection. <http://efcnetwork.org>

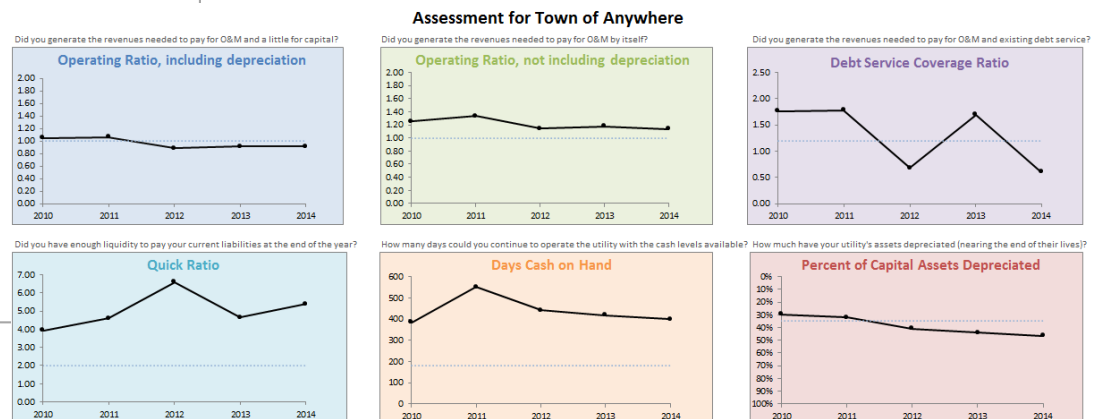
What does this tool do?
This tool assists in the assessment of the financial performance of a water (and/or wastewater) utility fund. Financial data readily available in annual financial statements are copied into this tool, which computes key financial indicators that measure a variety of important metrics, such as the ability to pay debt service, availability of cash to pay for operations and maintenance, the sufficiency of revenues generated, etc. Each metric is compared against targets that are specified by the user. The tool demonstrates the financial strengths and weaknesses of the utility fund in the past 5 years.

Features:
Simple data entry (uses data already reported in your audited financial statements)
6 financial performance indicators with explanations
Set your own targets
Assessment of last year's financial ratios, improvements since previous year, and five-year trends
Guided navigation through hyperlinked images

What are financial indicators?
Watch a whiteboard video explaining financial performance indicators in lay terms.

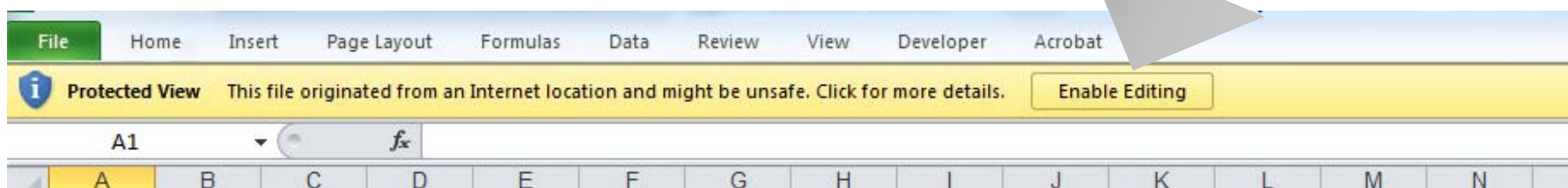
Excel®- based tool
Free to use



Created by the Environmental Finance Center at the University of North Carolina, Chapel Hill's School of Government
A resource for water systems from the EFCN's Smart Management for Small Water Systems project
funded under a cooperative agreement with the U.S. E.P.A.



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Why Care About This?

- Funders and ratings agencies care about this
- As you think about the future needs of your system, you have to know where you are starting from



So....

- Now that we know where we are, let's decide where we are going...
- How do we estimate the future costs and revenues?