Smart Management for Small Water Systems

Multi-Funding Workshop for Small Water Systems

08/17/17| Springfield, MO

www.efcnetwork.org

UNC ENVIRONMENTAL FINANCE CENTER

EFCN environmental finance center network

American Water Works Association

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

Background

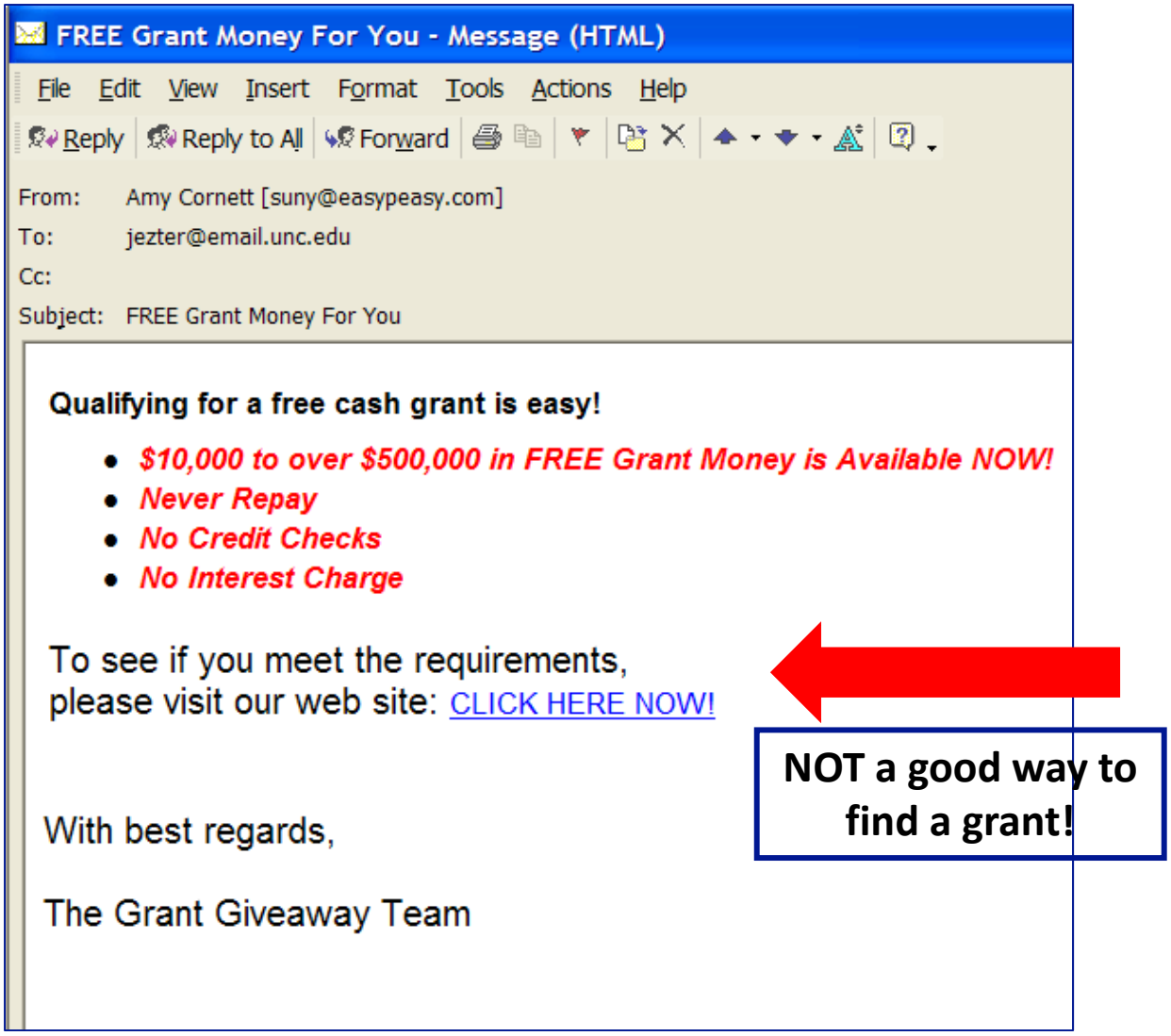
Applying for a grant or a loan?

Compare and contrast grants vs loans: sustainable funding sources

How the Payments are Made For Infrastructure Projects

- Save in advance and pay
- Pay as you go (current receipts)
- **Pay afterwards (someone loans you money)**
- **Grants**

About Grants



Grants Aren't Completely Free Money

- Application for the grant can be expensive – staff time and money
- Applications can take months to process
- Often lots of strings attached
- Often require a percentage match
- Lots of competition
- Difficult to sustain

In the Old Days...

- Water systems took advantage of the federal government's ambitious construction grants program of the 1970s and 1980s

- It seemed like "free" money

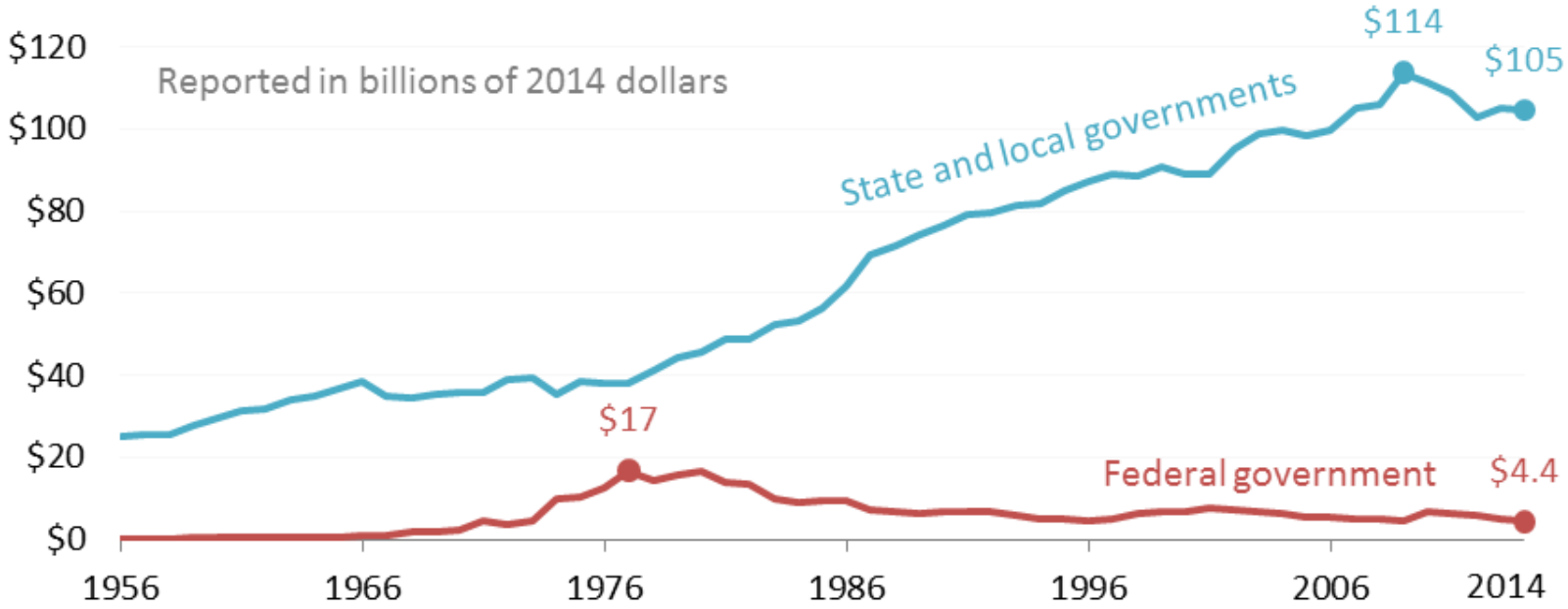
Capital Finance Today

- The money never really was “free”—it came from tax dollars

- Today, the financial burden has been shifted away from federal and state tax dollars (grants) to funds raised by the water system itself (customer sales and loans). For example...

State and local government spending on water and wastewater utilities continued to grow while federal spending declined since the 1980s

State and local governments spent 24 times as much as the federal government in 2014



Graphed by the Environmental Finance Center at the University of North Carolina, Chapel Hill.
Source: Congressional Budget Office supplemental data for the *Public Spending on Transportation and Water Infrastructure, 1956 to 2014* report (March 2015). Displays public spending on supply systems for distributing potable water as well as wastewater and sewage treatment systems and plants. Real spending is shown after adjusting nominal spending to their 2014 dollar equivalent using infrastructure-specific price indexes.

Loans

- Typically from a bank
- Can be from a government-sponsored program such as the Drinking Water State Revolving Fund

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

Bonds

- A written promise to repay borrowed money (on a definite schedule and usually at a fixed rate of interest for the life of the bond)

- Different types exist:
  - General Obligation (GO)
  - Revenue

Source: bettermondays.com

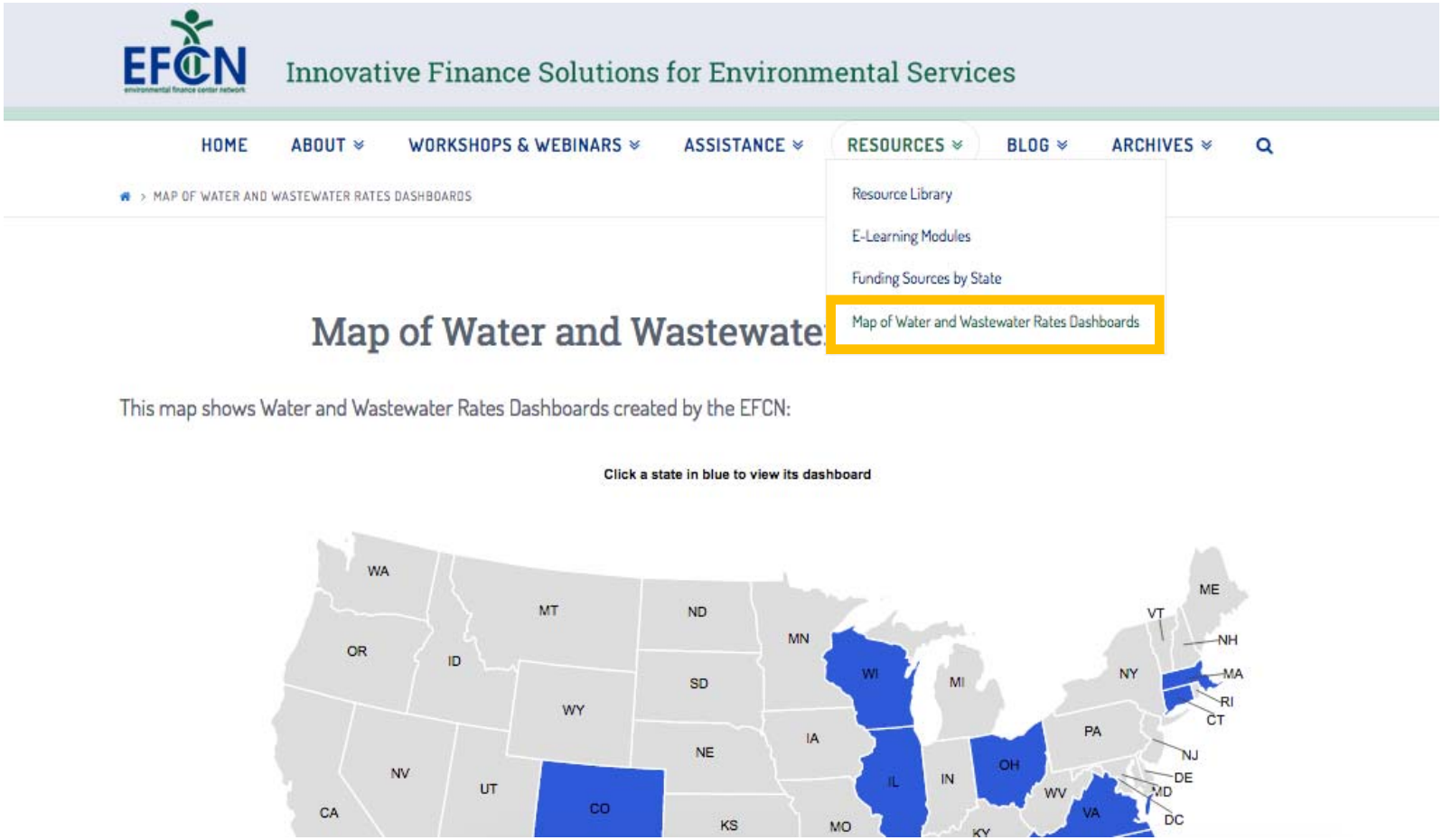
When You Need Cash Now: The Debt Market

- 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

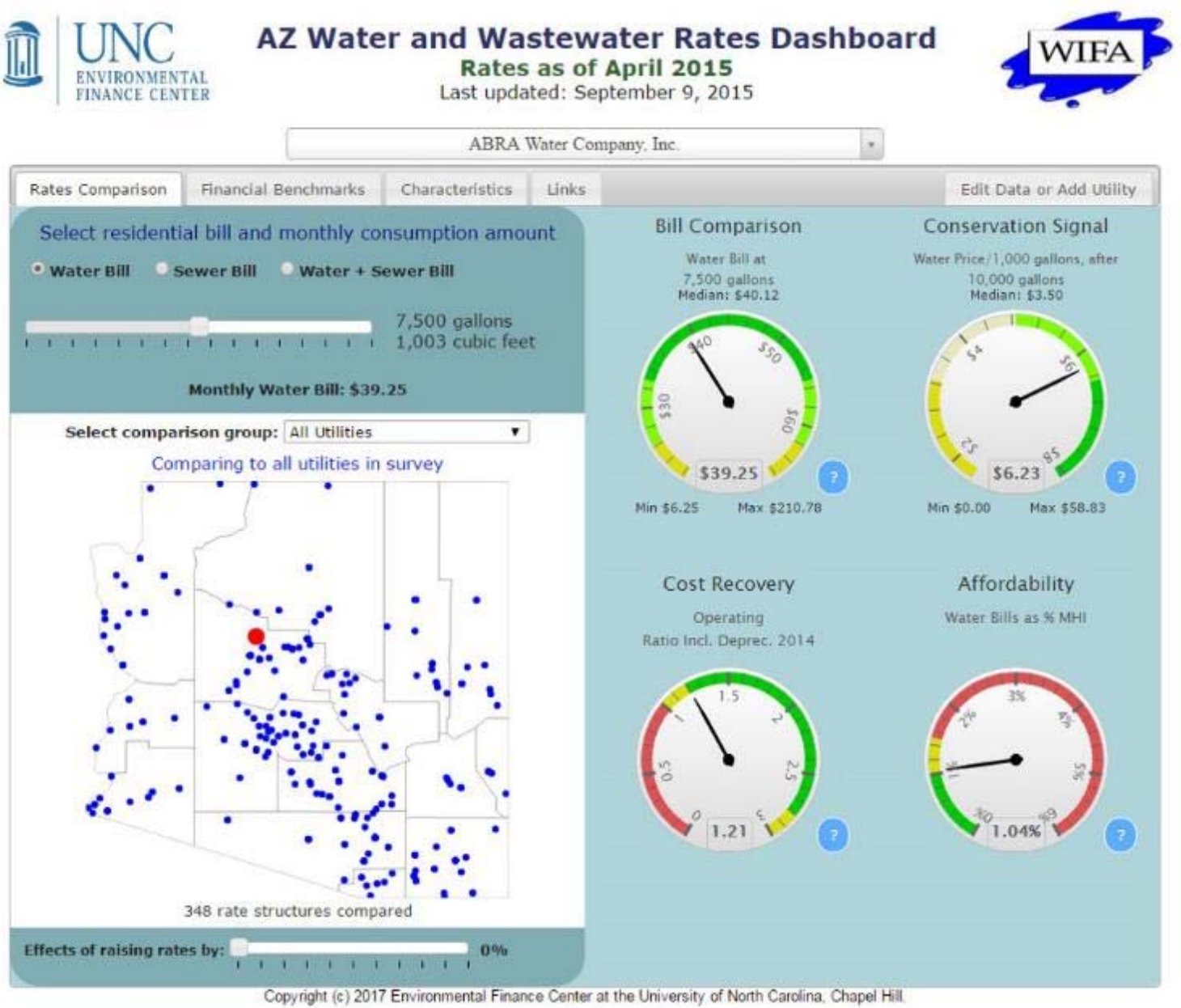
Using Metrics from a Rates Dashboard

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.



Example Dashboard:



Example Dashboard:

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AZ Water and Wastewater Rates Dashboard

Rates as of April 2015

Last updated: September 9, 2015

WIFA

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

$$\frac{\text{OPERATING REVENUES}}{\text{OPERATING EXPENSES}}$$

Include or Exclude

DEPRECIATION

ANNUAL COST OF WEAR AND TEAR ON THE SYSTEM

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

$$\frac{\text{OPERATING REVENUES} - \text{OPERATING EXPENSES (EXCLUDING DEPRECIATION)}}{\text{PRINCIPAL} + \text{INTEREST PAYMENTS ON LONG TERM DEBT}}$$

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

Can your system meet its short term obligations?

Current Ratio

$$\frac{\text{UNRESTRICTED CURRENT ASSETS EXCLUDING INVENTORIES AND PREPAID ITEMS}}{\text{CURRENT LIABILITIES}}$$

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

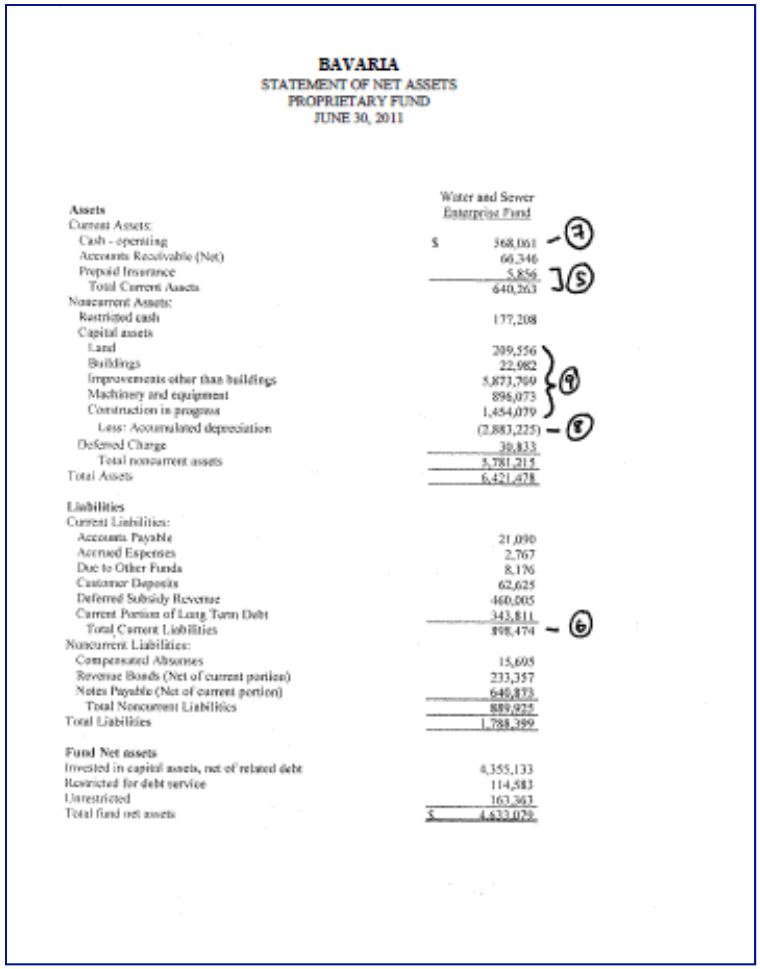
$$= \frac{Accumulated\ Depreciation}{Gross\ Plant\ and\ Equipment}$$

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.



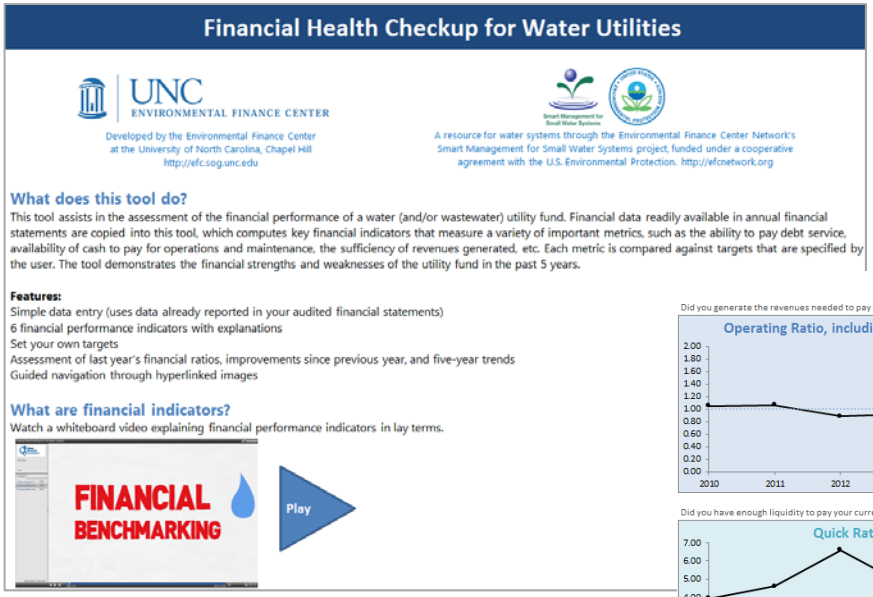
BAVARIA
STATEMENT OF NET ASSETS
PROPRIETARY FUND
JUNE 30, 2011

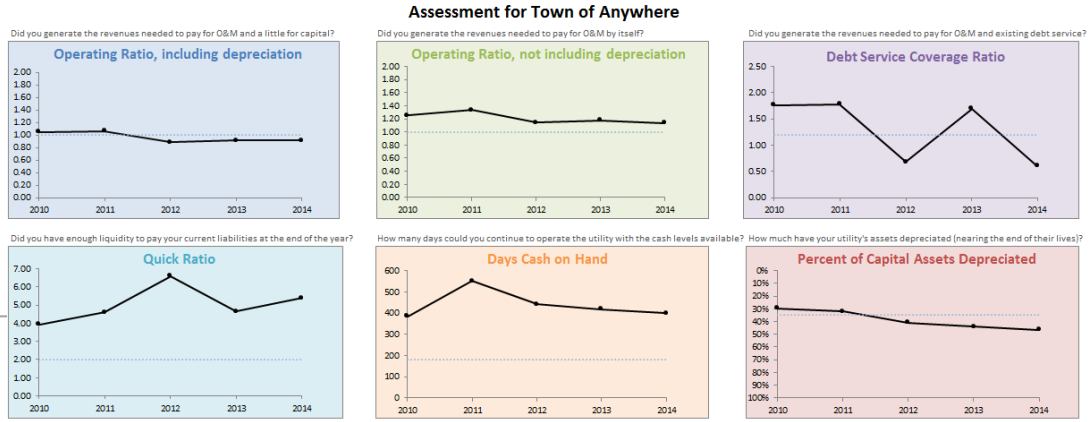
	Water and Sewer Enterprise Fund
Assets	
Current Assets:	
Cash - operating	$ 368,061
Accounts Receivable (Net)	66,346
Prepaid Insurance	5,856
Total Current Assets	640,263
Noncurrent Assets:	
Restricted cash	177,208
Capital assets	
Land	209,556
Buildings	22,982
Improvements other than buildings	5,873,769
Machinery and equipment	896,073
Construction in progress	1,454,039
Less: Accumulated depreciation	(2,883,225)
Deferred Charge	30,833
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	460,005
Current Portion of Long Term Debt	343,811
Total Current Liabilities	898,474
Noncurrent Liabilities:	
Compensated Absences	15,605
Revenue Bonds (Net of current portion)	233,357
Notes Payable (Net of current portion)	640,873
Total Noncurrent Liabilities	889,925
Total Liabilities	1,788,399
Fund Net assets	
Invested in capital assets, net of related debt	4,355,133
Restricted for debt service	114,583
Unrestricted	163,363
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





Excel®- based tool

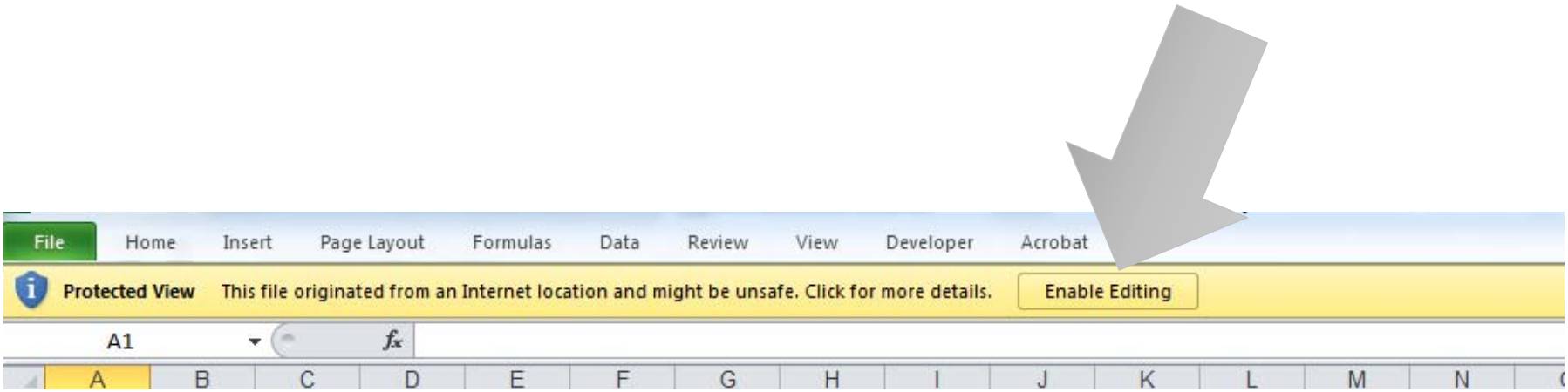
Free to use

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.

Tip: when you first use this file after downloading from our website, click on “Enable Editing” at the top



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?

BREAK