Smart Management for Small Water Systems

Financing for the Future: Financial Longevity for Municipal Operations

Thursday, February 16, 2017
1:00 – 2:00 PM EST

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

EFCN environmental finance center network

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Environmental Finance Center

American Water Works Association

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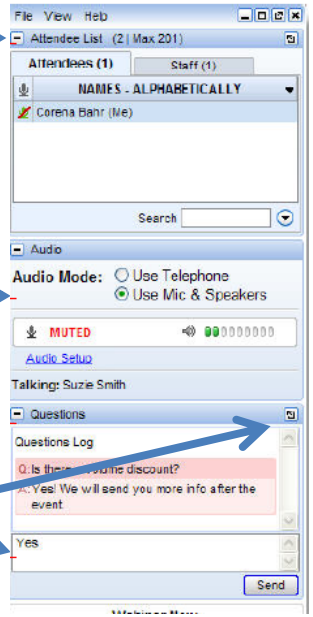

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Submit questions in the Questions box at any time, and press [Send]. To undock and increase the size of the box, click on top right corner icon.

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 Project 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.

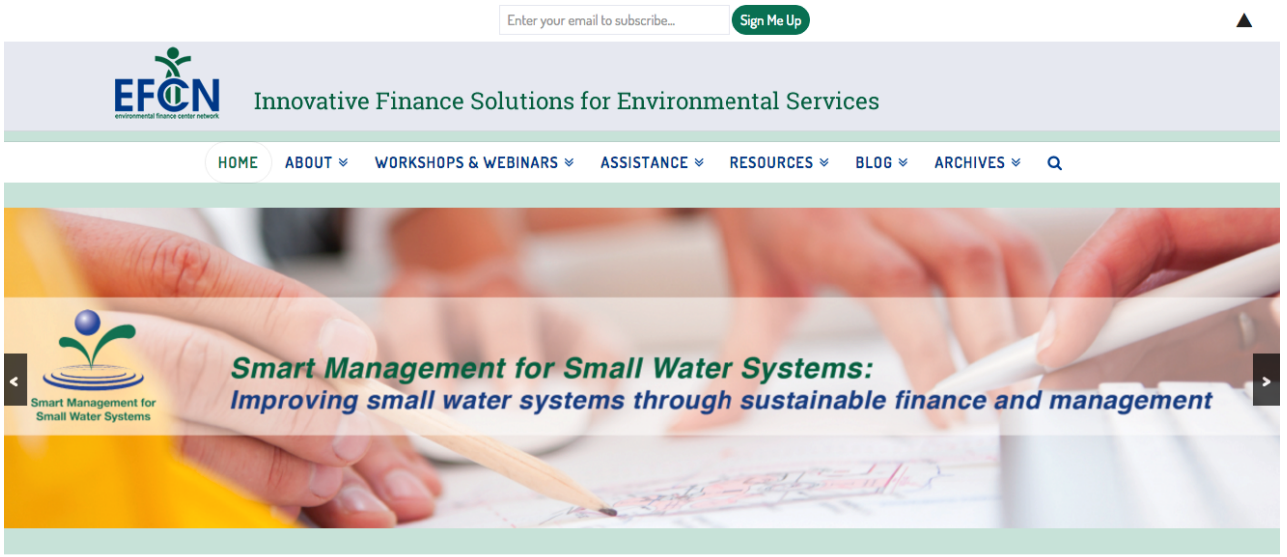
- Environmental Finance Center at University of North Carolina at Chapel Hill
- Southwest Environmental Finance Center
- Syracuse University Environmental Finance Center
- Environmental Finance Center at Wichita State University
- Environmental Finance Center at University of Louisville
- EFC West
- Great Lakes Environmental Finance Center at Cleveland State University
- New England Environmental Finance Center at University of Southern Maine

Areas of Expertise

- Asset Management
- Energy Management Planning
- Financial Management
- Leadership Through Decision-making and Communication
- Managing Drought
- Water Loss Reduction
- Collaborating with Neighboring Communities
- Multi-funding
- Water Conservation
- Management and Finance 101
- Climate Resiliency
- Workforce Development

Resources for small water systems:

www.EFCNetwork.org



Financing for the Future: Financial Longevity for Municipal Operations

Shadi Eskaf

Environmental Finance Center

The University of North Carolina at Chapel Hill

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2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026

Budgeting

What will be covered today

Assess financial performance trends in recent past

Clarify what might be expected in the future

Resources to help set plans for short-term and long-term needs

Assess financial performance trends in recent past

Can you answer these questions?

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 of Cash on Hand
Can your system meet its short term obligations?	Current Ratio

Whiteboard video: Financial benchmarking for water utilities

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

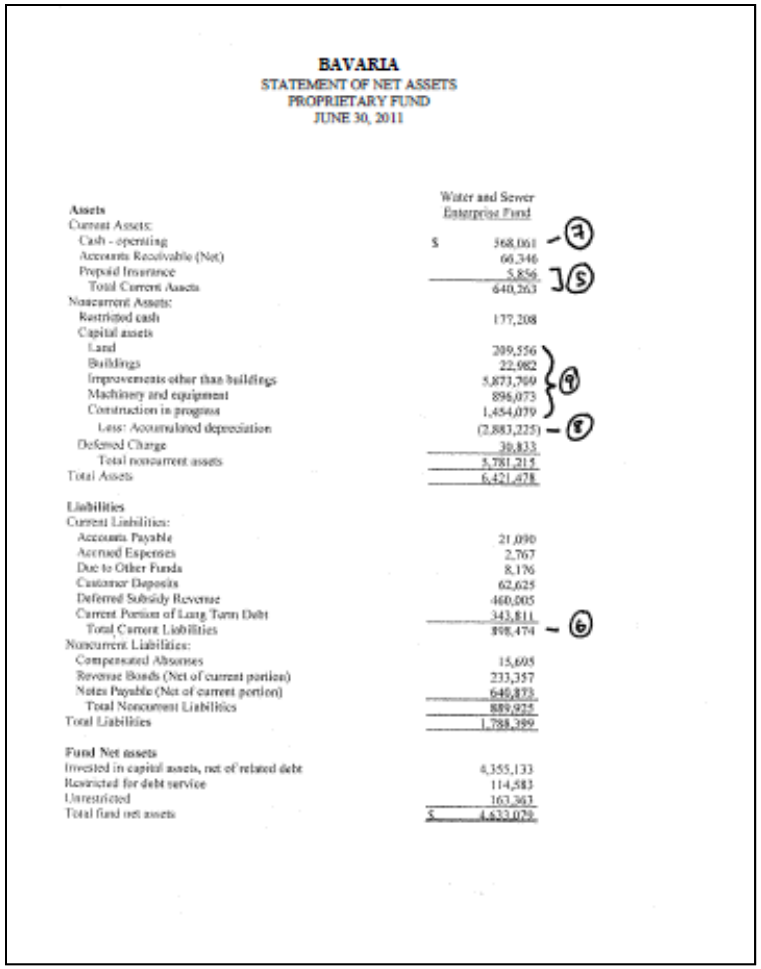
Where do we get started?

Local governments:

annual 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	$ 568,061
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)	646,873
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

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/

What is it?

DEPRECIATION

ANNUAL COST OF WEAR
AND TEAR ON THE SYSTEM

- Loss of value of an asset not restored by current maintenance
- An economic fact for every water system
- From both physical factors and functional or non-physical factors

Recorded webinar on depreciation for water systems

https://www.youtube.com/watch?v=d8A7MJXFV1U&t=1115s

$$\frac{\text{Operating Revenues}}{\text{Operating Expenses incl. Depreciation}} > 1 \checkmark$$

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/

Debt Service Coverage Ratio

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

> 1.2

Check your bond covenants or ask your funder

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/

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/

Current Ratio

All numbers can be found in the Proprietary Fund (Water/Sewer Fund) section in the audited financial statements

Example from an actual town's financial statement

Statement of Revenues, Expenses, and Changes in Net Position

Statement of Revenues, Expenses, and Changes in Fund Net Position
Proprietary Fund
For the Year Ended June 30, 2014

	Major Enterprise Fund: Water and Sewer Fund
OPERATING REVENUES	
Water sales	$ 1,251,991
Sewer charges	1,134,271
Reuse water charges	50,490
Reconnection fees and penalties	36,870
Miscellaneous	27,664
Total operating revenues	2,501,286 (1)
OPERATING EXPENSES	
Administrative	389,633
Water operations	842,864
Sewer treatment	541,834
Public utilities	431,935
Depreciation	534,000 (3)
Total operating expenses	2,740,266 (2)
Operating income (loss)	(238,980)

Statement of Cash Flows

Statement of Cash Flows
Proprietary Fund
For the Year Ended June 30, 2014

	Major Enterprise Fund: Water and Sewer Fund
CASH FLOWS FROM OPERATING ACTIVITIES	
Cash received from customers	$ 2,723,882
Cash paid for goods and services	(1,401,533)
Cash paid to or on behalf of employees for services	(948,905)
Customer deposits received	1,710
Other operating revenues	27,664
Net cash provided (used) by operating activities	402,818
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES	
Transfer to other funds	(12,000)
Total cash flow from noncapital financing activities	(12,000)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES	
Capital contribution - access fees	382,983
Capital contribution - NC Rural Center grant	1,469
Capital contribution - CDBG grant	12,600
Principal paid on bonds/loans	(436,459)
Interest paid on bonds/loans	(55,535)
Acquisition and construction of capital assets	(254,138)
Net cash provided (used) by capital and related financing activities	(349,080)
CASH FLOWS FROM INVESTING ACTIVITIES	

Statement of Net Position

Statement of Net Position
Proprietary Fund
June 30, 2014

		Major Enterprise Fund: Water and Sewer Fund
ASSETS		
Current assets:		
Cash and cash equivalents		$ 2,415,013 (7)
Accounts receivable (net) - billed		319,598
Accounts receivable (net) - unbilled		56,817
Due from other governments		150,201
Prepaid items	c)	14,811
Restricted cash and cash equivalents	b)	169,675
Total current assets	a)	3,126,115
	(a) − (b) − (c) = (5)	
Noncurrent assets:		
Capital assets:		
Land and construction in progress		2,870,862
Other capital assets, net of depreciation		10,090,950
Capital assets		12,961,812
Total noncurrent assets		12,961,812
Total assets		$ 16,087,927
LIABILITIES		
Current liabilities:		
Accounts payable and accrued liabilities		109,426
Accrued bond interest		5,134
Customer deposits	e)	49,292
Current portion of long-term debt		432,459
Total current liabilities	d)	596,311
	(d) − (e) = (6)	
Noncurrent liabilities:		

Smart Management for Small Water Systems

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Important: don't just look at last year

Example. Last fiscal year's ratios:

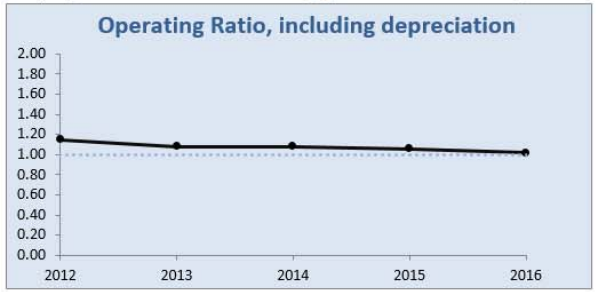
- Operating ratio = 1.02 ✓
- Debt service coverage ratio = 1.15 ?
- Days cash on hand = 145 ✓
- Current ratio = 1.2 ✓

Potential conclusion: "we're on the right track"

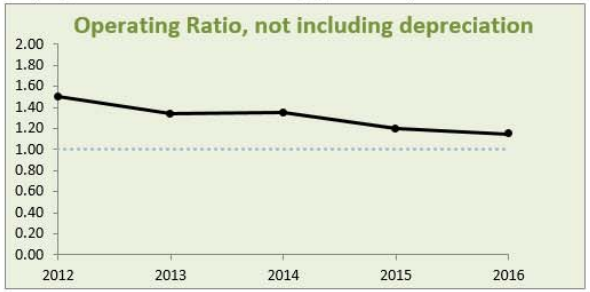
But consider the trends in the last 5 years

Assessment for Example utility

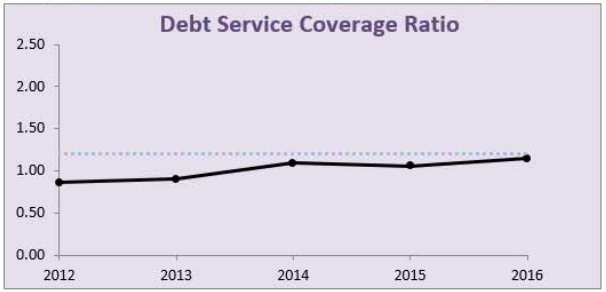
Did you generate the revenues needed to pay for O&M and a little for capital?



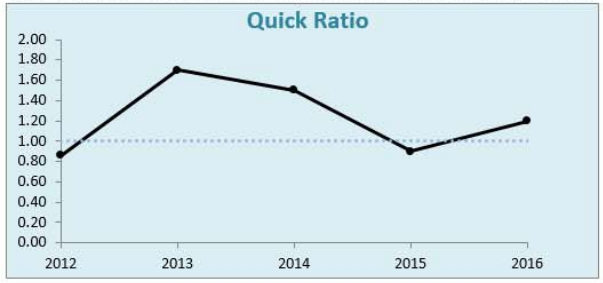
Did you generate the revenues needed to pay for O&M by itself?



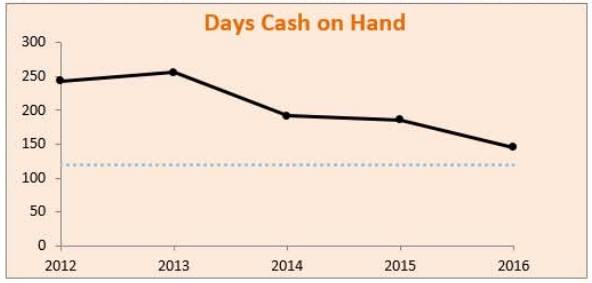
Did you generate the revenues needed to pay for O&M and existing debt service?



Did you have enough liquidity to pay your current liabilities at the end of the year?



How many days could you continue to operate the utility with the cash levels available?

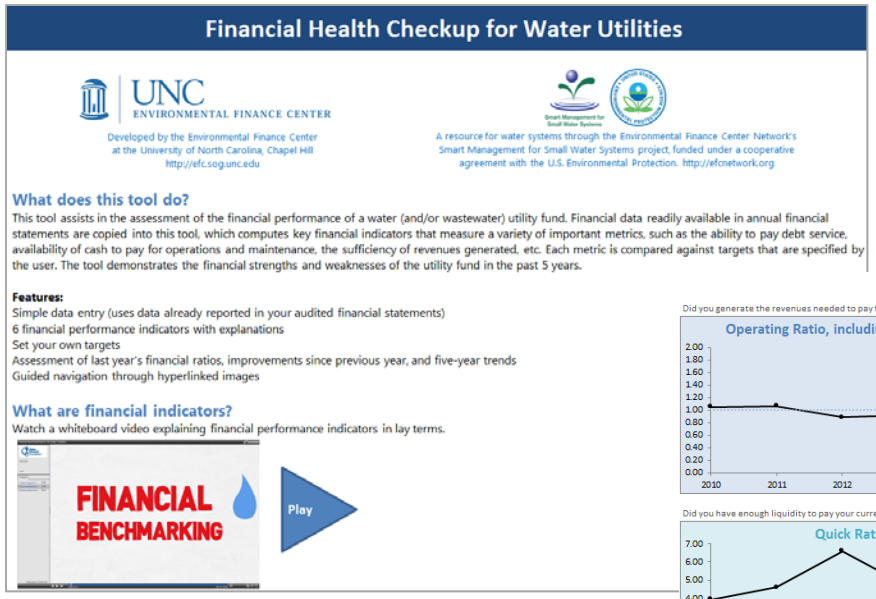


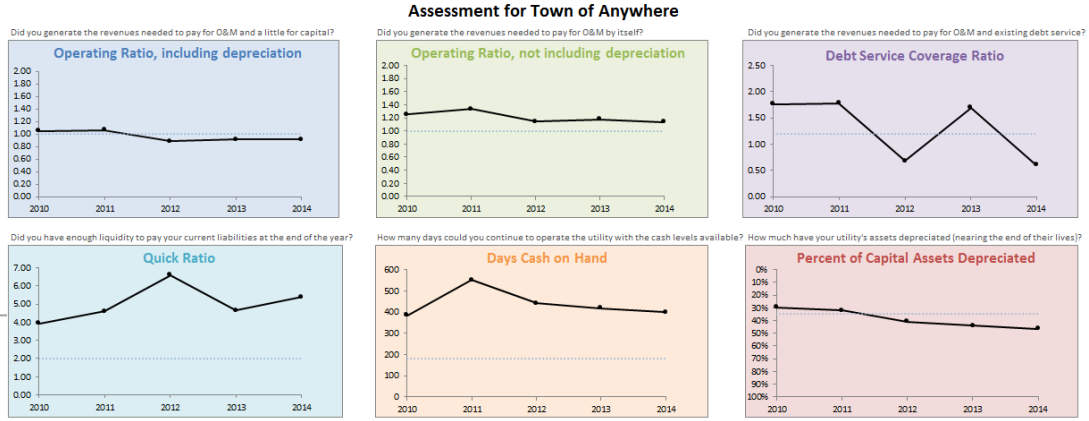
New conclusion: “we were OK, but something needs to change”

Tool: 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

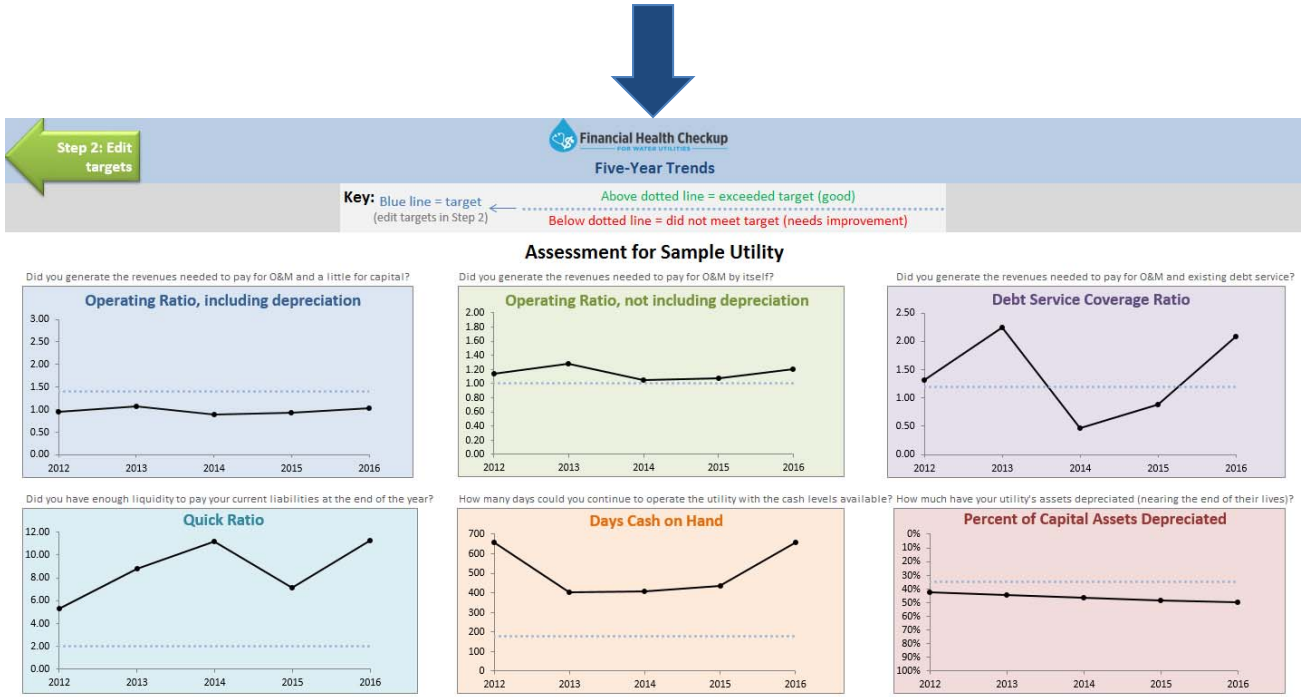
Created by the Environmental Finance Center at the University of North Carolina, Chapel Hill's School of Government

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.

Tool: Financial Health Checkup for Water Utilities

Key	Field in the financial statement/CAFR	2012	2013	2014	2015	2016	Instructions
[1]	Total Operating Revenues	$ 3,984,193	$ 3,965,968	$ 3,901,253	$ 4,459,727	$ 5,074,590	Enter as shown in the Total Operating
[2]	Total Operating Expenses	$ 4,165,641	$ 3,736,470	$ 4,378,937	$ 4,789,087	$ 4,896,441	Enter as shown in the Total Operating
[3]	Depreciation & Amortization Expenses	$ 681,808	$ 635,807	$ 656,255	$ 668,160	$ 684,561	Depreciation and amortization are list
[4]	Debt Principal Payments	$ 323,177	$ 331,520	$ 339,490	$ 342,512	$ 265,342	Enter $0 if there were no debt service
[4b]	Debt Interest Payments	$ 55,289	$ 53,350	$ 47,011	$ 38,474	$ 147,909	Enter $0 if there were no debt service
[5]	Current Assets, excluding inventories, restricted cash, prepaids	$ 6,614,237	$ 4,004,526	$ 4,756,504	$ 5,362,317	$ 7,808,389	Total Current Assets minus all invento
[6]	Current Liabilities, excluding deposits & bond anticipation notes	$ 1,247,456	$ 456,465	$ 425,164	$ 750,171	$ 691,223	Total Current Liabilities minus all refu
[7]	Unrestricted Cash & Investments	$ 6,297,233	$ 3,406,963	$ 4,149,266	$ 4,929,329	$ 7,580,205	Unrestricted Cash & Investments (and
[8]	Total Accumulated Depreciation	$ 12,976,114	$ 13,611,921	$ 14,268,176	$ 14,936,336	$ 15,620,897	Total accumulated depreciation on ca
[9]	Total Depreciable Capital Assets	$ 30,575,353	$ 30,686,885	$ 30,867,768	$ 30,994,872	$ 31,291,993	Enter the total value of capital assets

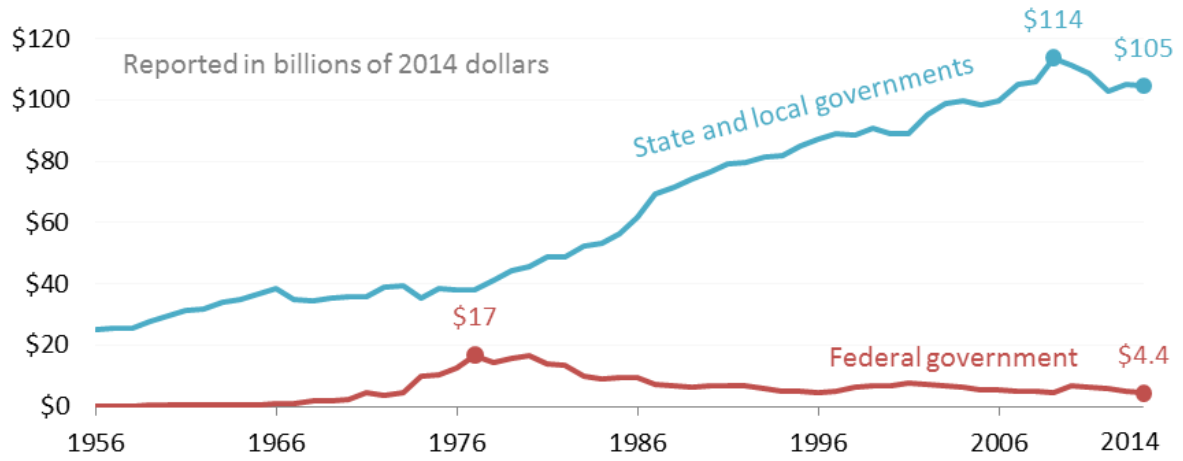


Clarify what might be expected in the future

The onus will continue to be on local governments to pay for their own infrastructure

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

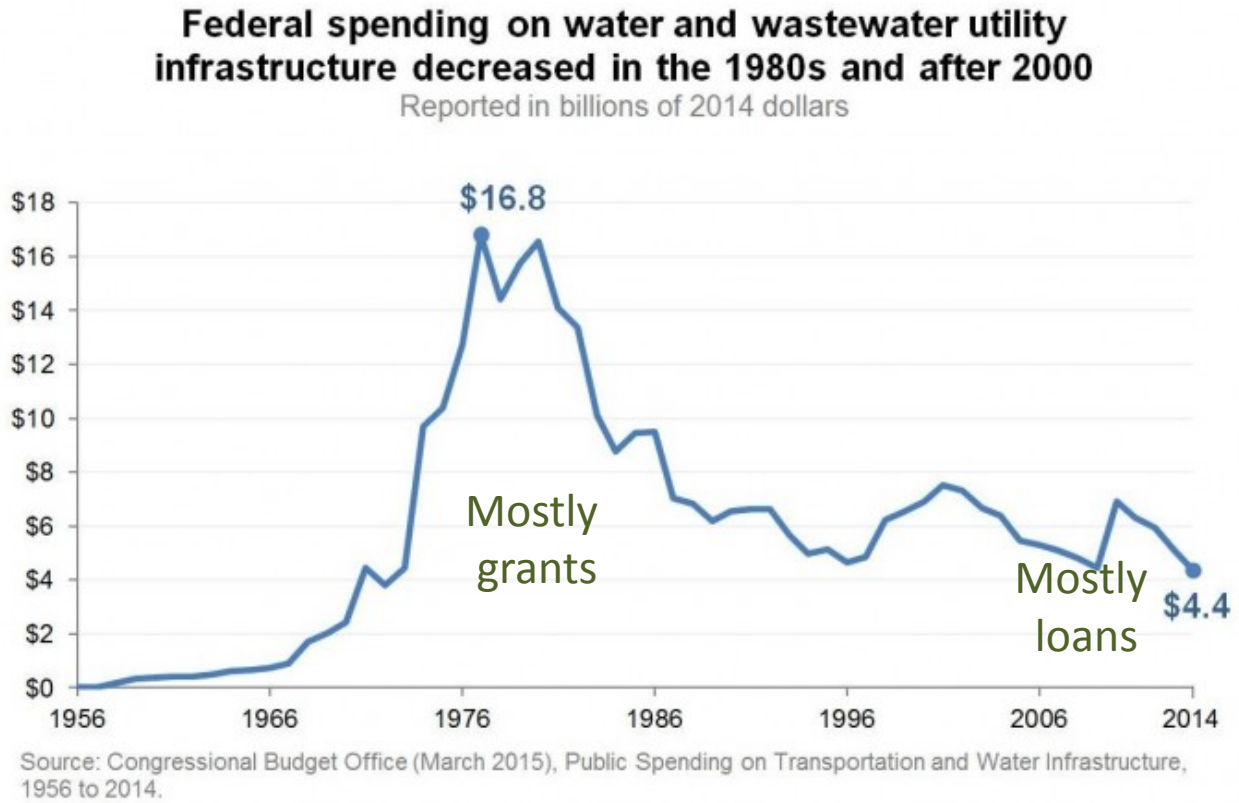
State and local governments spent 24 times as much as the federal government in 2014



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.

http://efc.web.unc.edu/2015/09/09/four-trends-government-spending-water/

Federal funding has declined.



http://efc.web.unc.edu/2015/05/14/federal-funding-trends-for-water-and-wastewater/

http://efc.web.unc.edu/2015/09/09/four-trends-government-spending-water/

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Four Trends in Government Spending on Water and Wastewater Utilities Since 1956

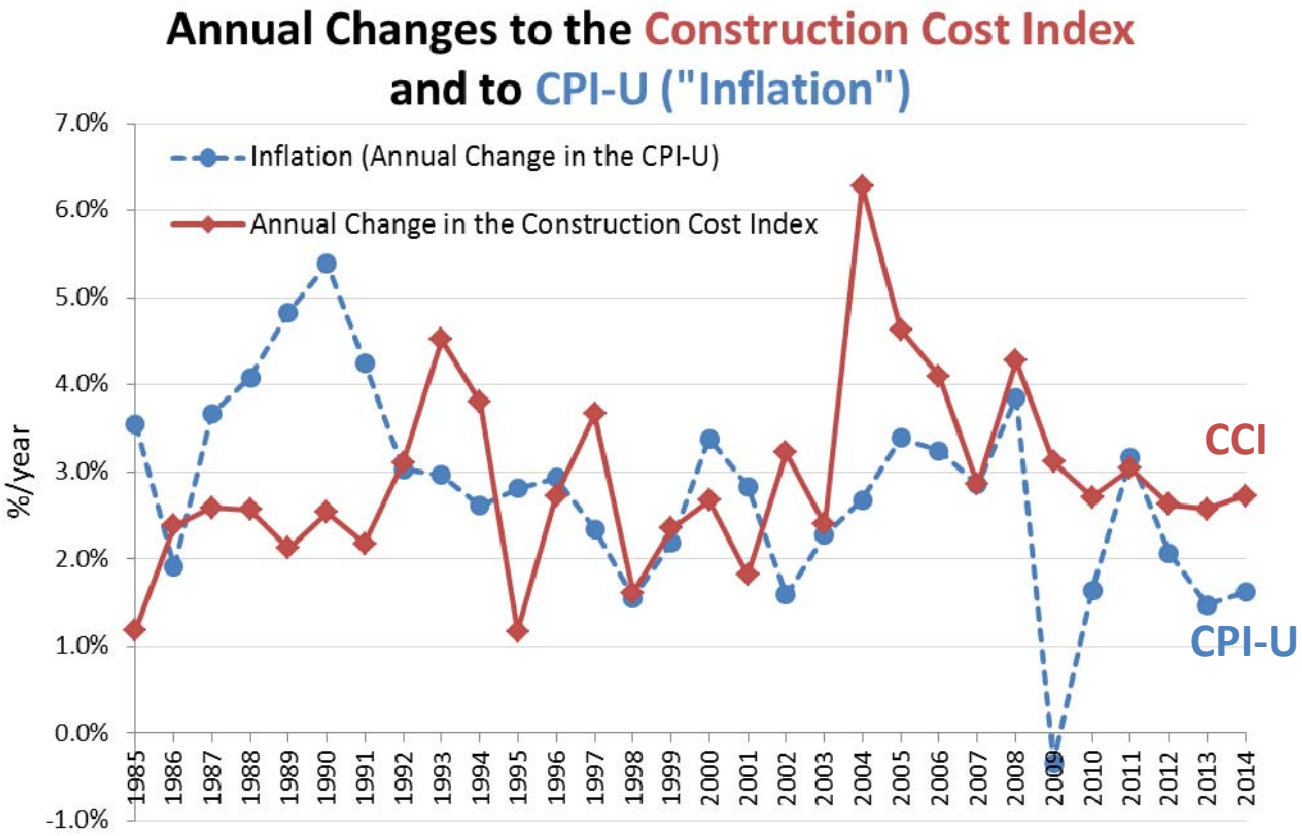
SEPTEMBER 9, 2015 / SHADI ESKAF / 0 COMMENTS

Print PDF

According to data collected and published by the Congressional Budget Office (CBO), federal, state and local governments in the United States spent more than $2.2 trillion in the last 59 years on operations, maintenance and capital infrastructure of water and wastewater utilities. That equates to more than $4,131,000,000,000 in 2014 dollars, adjusting for inflation of infrastructure-

Nationally, construction costs are growing at a little less than 3%/year (CCI).

Faster than the "rate of inflation" (CPI-U).

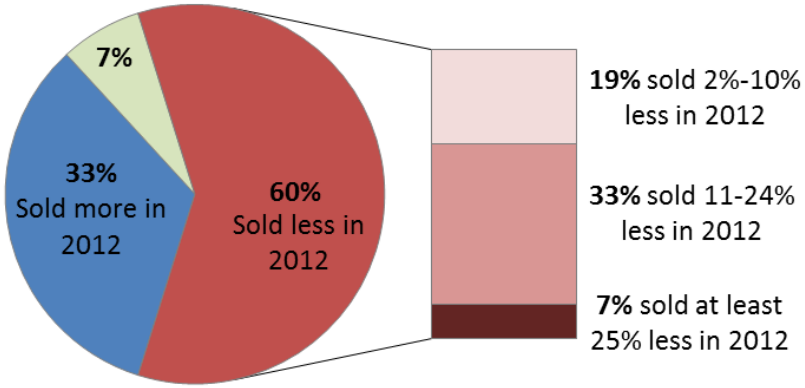


Data analyzed by the Environmental Finance Center at the University of North Carolina, Chapel Hill.
Data Sources: Bureau of Labor Statistics, Engineering News-Record ENR.com, InflationData.com, USDA Natural Resources Conservation Services.

http://efc.web.unc.edu/2012/09/26/using-an-index-to-help-project-capital-costs-into-the-future/

Water use is declining for many systems. Could mean lower revenues.

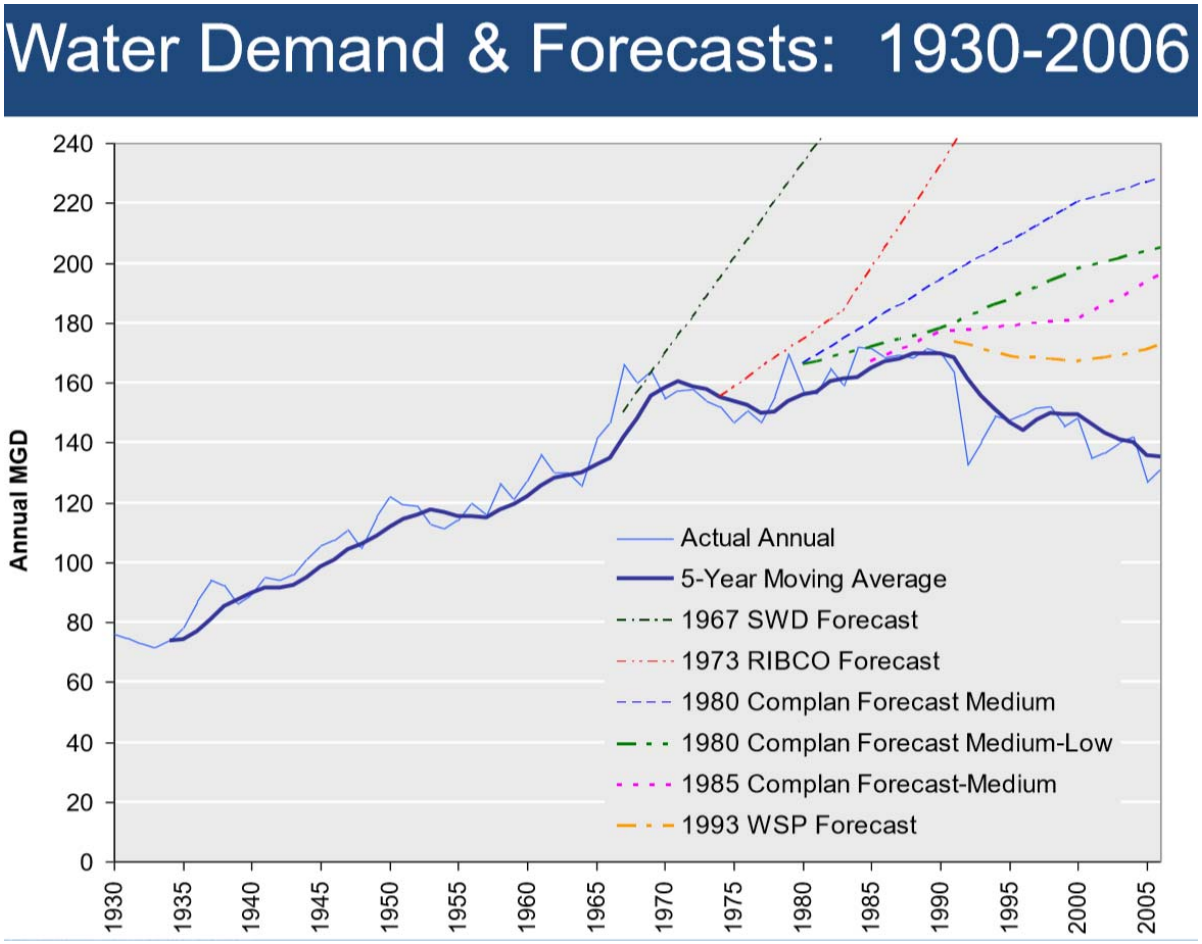
Total Water Volume Sales in 2012 Compared to 2006 in 129 Utilities Nationwide



Data analyzed by the Environmental Finance Center at the University of North Carolina, Chapel Hill and Raftelis Financial Consultants, Inc. Data Source: Biennial, national AWWA-RFC Water and Wastewater Rate Surveys in 2006 and 2012. Water utilities that reported their total daily gallons sold (MGD) in 2006 and 2012 are included in this analysis. 81% of the sampled utilities increased total number of accounts from 2006 to 2012.

Source: EFC *Environmental Finance* blog post "Even Total Water Demand is on the Decline at Many Utilities" http://efc.web.unc.edu/2014/04/15/total-water-demand-on-the-decline/

Seattle's demand forecasts



Long-term planning for municipalities is critical

- Growing operations and maintenance expenses
- Capital expenses to rehab/ replace existing infrastructure
- Capital expenses to add new infrastructure
- Changing customer base
- Changing demand patterns
- Demographics and conditions
- Sources of (capital) funding and priorities

Focus on capital planning

Growing operations and maintenance expenses

Capital expenses to rehab/ replace existing infrastructure

Capital expenses to add new infrastructure

Changing customer base

Changing demand patterns

Demographics and conditions

Sources of (capital) funding and priorities

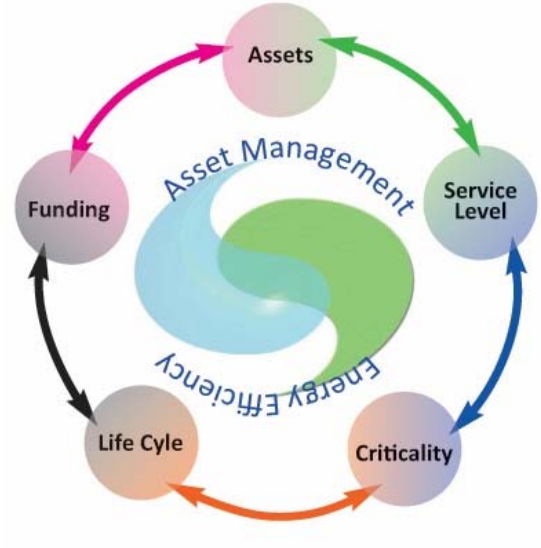
Two things all water systems should (or even must) do:

Asset Management Planning

&

Capital Improvement Planning

Five Core Components of AM



1) Current State of the Assets
2) Level of Service
3) Criticality
4) Life Cycle Costing
5) Long-Term Funding

Current state of the assets

List all of your assets:

- What do I own?
- Where are the assets?
- What condition are they in?
- How much useful life is remaining?
- What is the replacement value?

Example of an Asset Inventory

Asset Inventory

ID Number	Category	Type	Size	Manufacturer	Serial Number	Location	Installation Date	Condition	Energy user Y/N (if Yes, see Energy Inventory)	Comments

Source: A.M. KAN Work!

Level of service

Involve Customers

Involve Staff

Measurable Goals: Internal and External

Track Progress Towards Meeting Goals

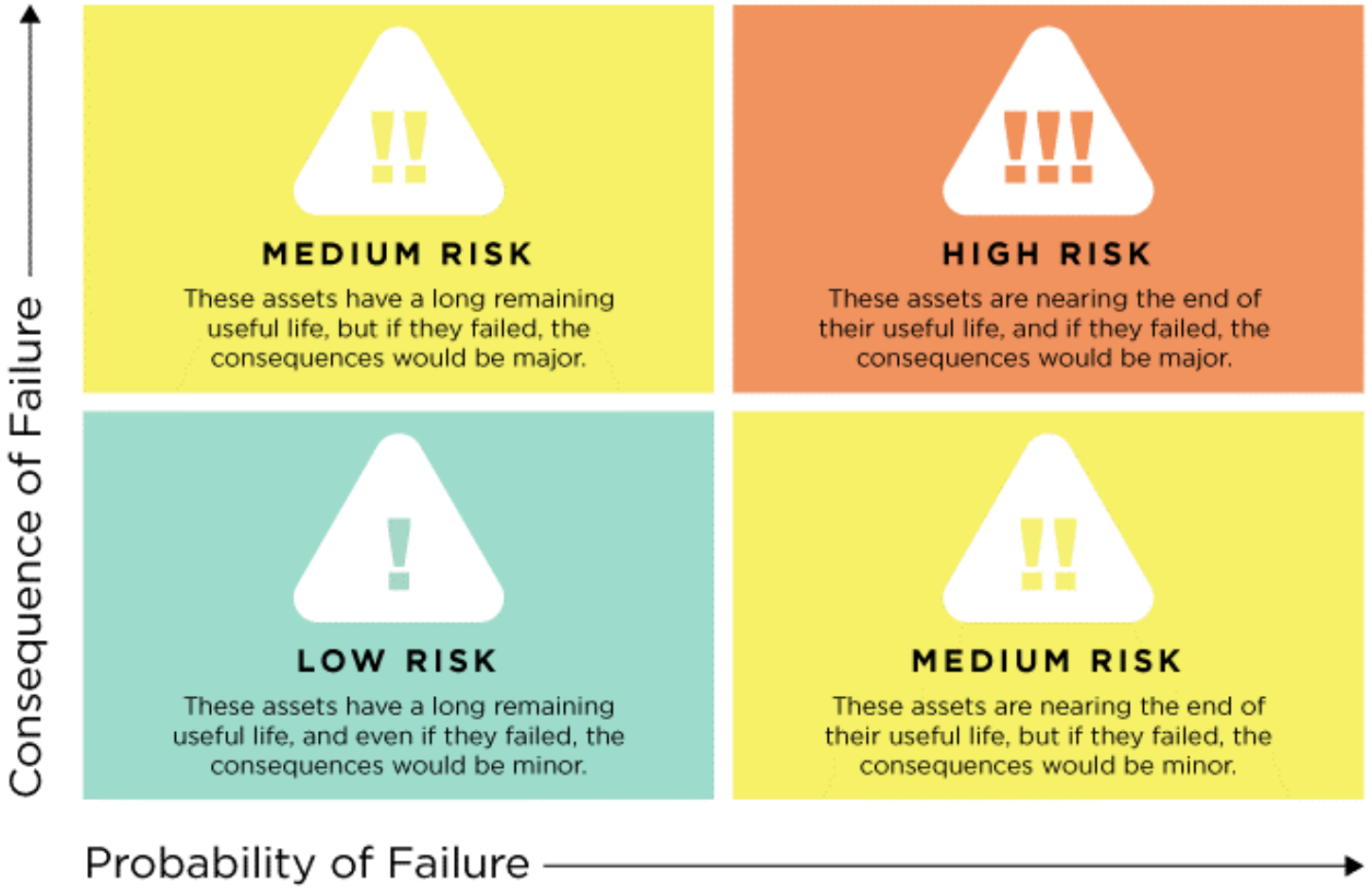
What would my customers want?

Criticality – 2 parts

What is the **probability or likelihood** that a given asset will fail?

What is the **consequence** if the asset does fail?

Criticality – 2 parts



Prioritize asset rehabilitation / replacement

Example System Inventory Worksheet

Date Worksheet Completed/Updated: 8/14/02

Asset	Expected Useful Life	Condition	Service History	Adjusted Useful Life	Age	Remaining Useful Life
Well 1 (1993)	30	Good		30	9	21
Well 1 pump	10	Good	Rehab (1996)	10	9	1
Well 2 (1993)	30	Good		30	9	21
Well 2 pump	10	Good	Rehab (1998)	10	9	1
Pumphouse (1993)	30	Good		30	9	21
Electrical components	10	Some corrosion	Rehab (1994)	10	9	1
Chlorinator (1993)	10	Good	Rehab (1998)	5	3	2
Storage tank 1 (1993)	40	Good	Rehab (2000) - $17,000	40	9	31
Storage tank 2 (1993)	40	Good	Rehab (2000) - $17,000	40	9	31
Storage tank 3 (2000)	40	Almost new		40	2	38
Distribution System:						
Hydrants (15)	40	Unknown		40	9	11
Valves (45)	40	Unknown	6 valves don't work	40	9	11
6-inch (PVC)	60	Unknown		60	9	51
4-inch (PVC)	60	Unknown		60	9	51
2-inch (PVC)	60	Unknown	Repair breaks (2/year)	60	9	51

Prioritization Worksheet

Importance	Redundancy	Priority (1 is high)
Needed for service	Other well, but need backup	6
Needed for service	Other well, but need backup	3
Needed for service	Other well, but need backup	6
Needed for service	Other well, but need backup	3
Needed for service	Other well, but need backup	6
Needed for control	No redundancy - corrosion	2
Mandatory	No redundancy - need backup	1
eed for fire flow and demand	Other tanks	6
eed for fire flow and demand	Other tanks	6
eed for fire flow and demand	Other tanks	6
Needed for public safety	Other hydrants	5
Needed for isolation	Other valves, but some are out of service	4
Needed for delivery	No redundancy	6
Needed for delivery	No redundancy	6
Needed for delivery	No redundancy	6

Source: EPA's "Asset Management: A Handbook for Small Systems"

Asset Management Plan (AMP)

- Once assets are prioritized, come up with a timeline to replace or rehabilitate your current assets in grouped projects
- AMPs can be for 20+ years – as long as necessary
- You don't have to figure out how to pay for everything 20 years from now, but…

Capital Improvement Plan (CIP)

An official multi-year document that identifies and prioritizes capital projects in the near future, identifies funding sources, and sets timelines for projects.

Include projects not listed in the AMP.

Example of a simple Capital Improvement Plan

	Planning Years (Values in 000s)						
Project Name	**FY 02**	**FY 03**	**FY 04**	**FY 05**	**FY 06**	**Future**	**Total**
Water Supply & Treatment							
Water Treatment Objective							
Lime pumps and slakers	740						740
Chemical Enclosures		500					500
Filter 7-18 Control			330				330
Filter Gallery Rehab	1,140						1,140
High Service Pumps		1,500					1,500
Upgrade or Replace Reclaim System Drier	200						200
New Membrane Skids				5,700			5,700
Sodium Hypochlorite Plant	2,000						2,000
Additional Storage Tanks					5,000	3,300	8,300
Repair R/O Capacity		150					150
Filter Gallery Mech Parts	300						300
MMIS						150	150
VFDs - HSP		344					344
Membrane Replacement		1,600					1,600
Painting of Water Plant						3,000	3,000
Phase II Emergency Power Generator						1,500	1,500
Portable Generator - South Well Field				150			150
Repalcement of Fuel Tanks			170				170
Upgrade of Existing Control System @ WTP						580	580
Water Treatment Total	4,380	4,094	500	5,850	5,000	8,530	28,354

How to pay for capital improvements

- Pay as you go (current receipts)
- Save in advance and pay (reserve funds)
- Pay later (someone loans you money)
- Grants (let someone else pay)

Typical sources of external funding

Bonds	Revenue bonds, GO bonds
Loans	From banks, or can be subsidized: e.g. WIFIA, USDA, SRFs (EPA/State), State agencies
Grants	From agencies: e.g. CDBG (HUD), EDA, ARC, State agencies

Funding Sources by State

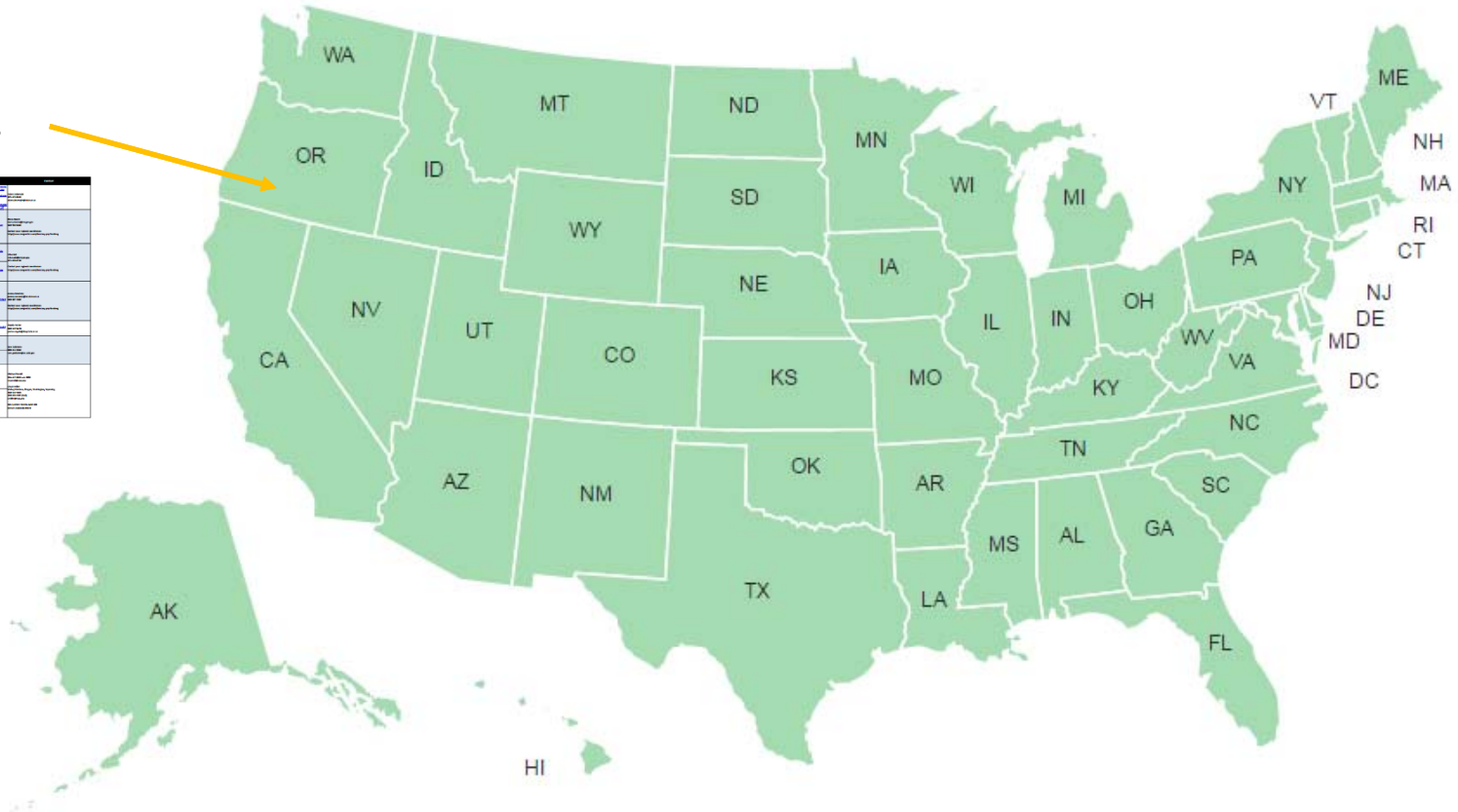
http://efcnetwork.org/funding-sources-by-state/

Funding Sources by State

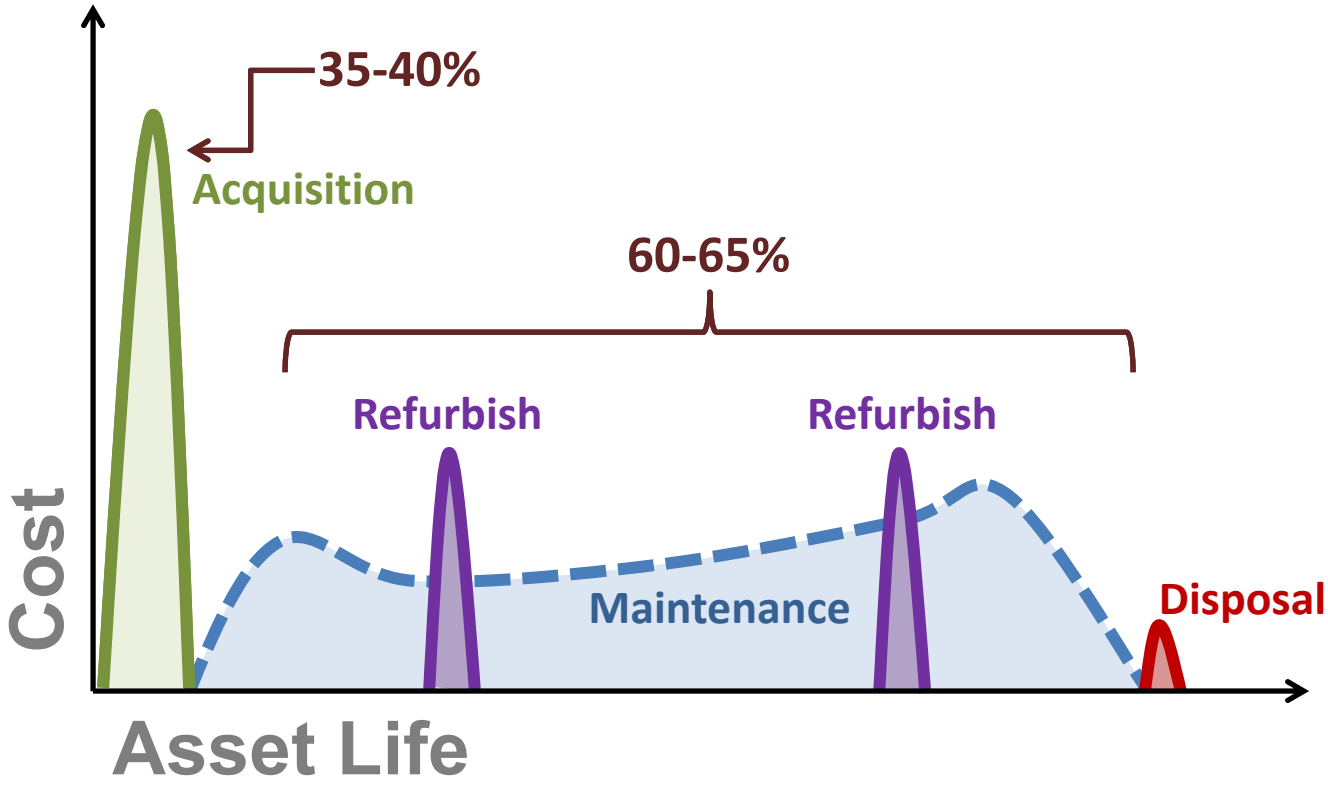
Note: Some states may have additional resources listed below the map.

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

Click on an individual state to view funding table.



Capital investments are just the tip of the iceberg…



Source: Adapted from Steve Allbee, USEPA

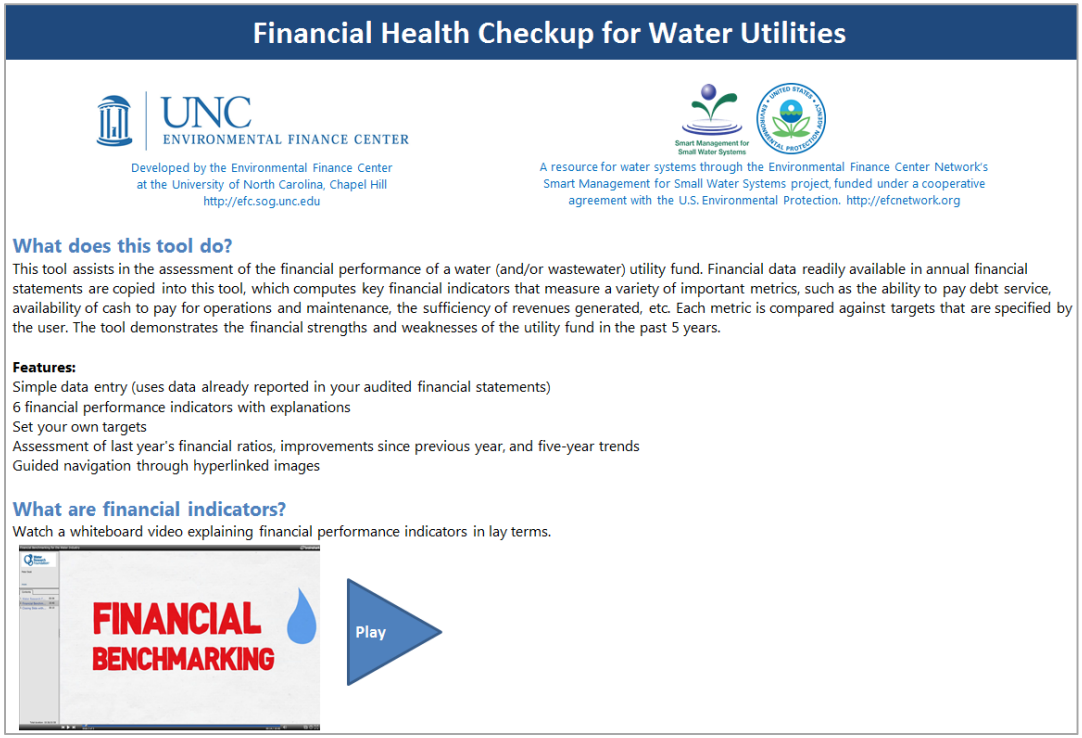
Resources to help set plans for short-term and long-term needs

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

Free, simplified Excel tool allowing you to track and benchmark financial performance metrics for your water/sewer fund in the past 5 years



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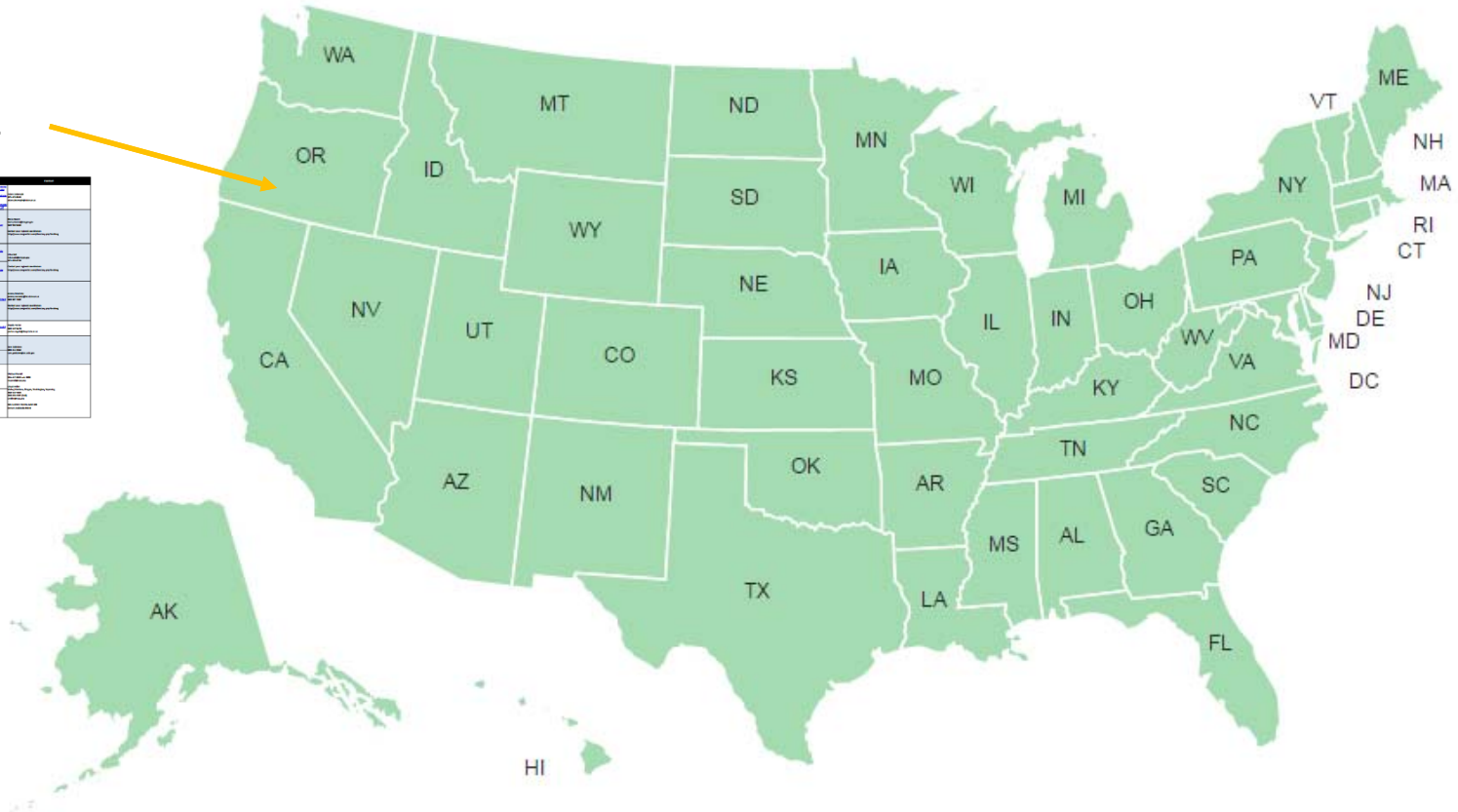
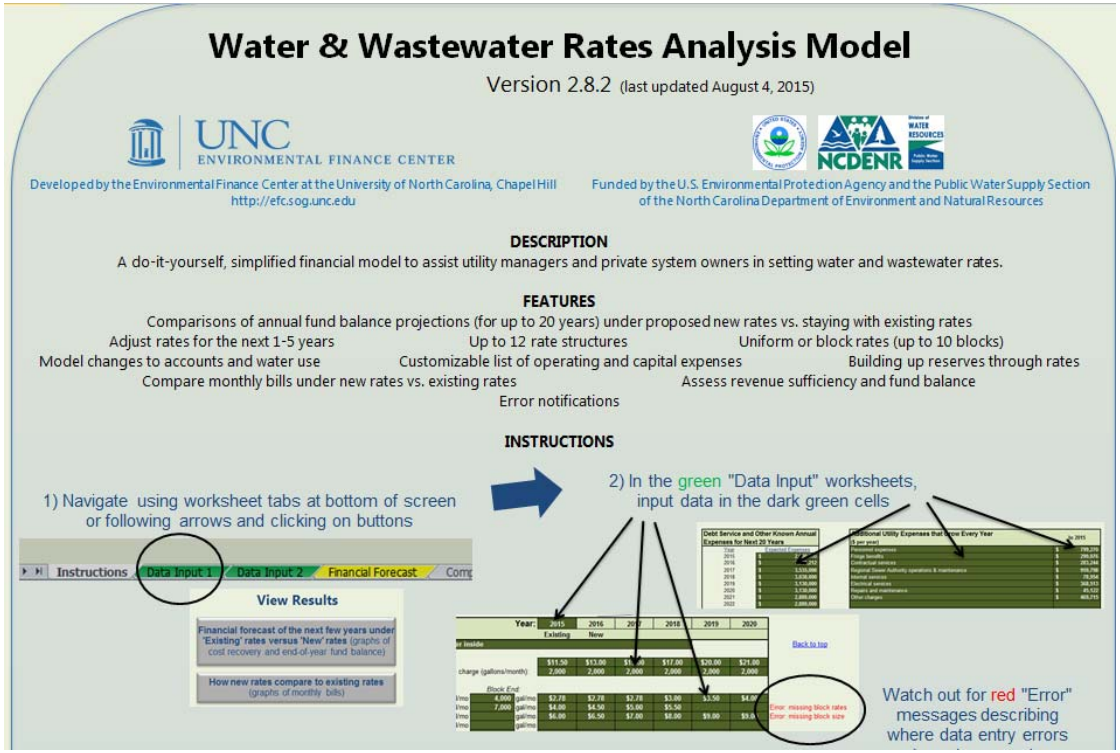


Water & Wastewater Rates Analysis Model

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

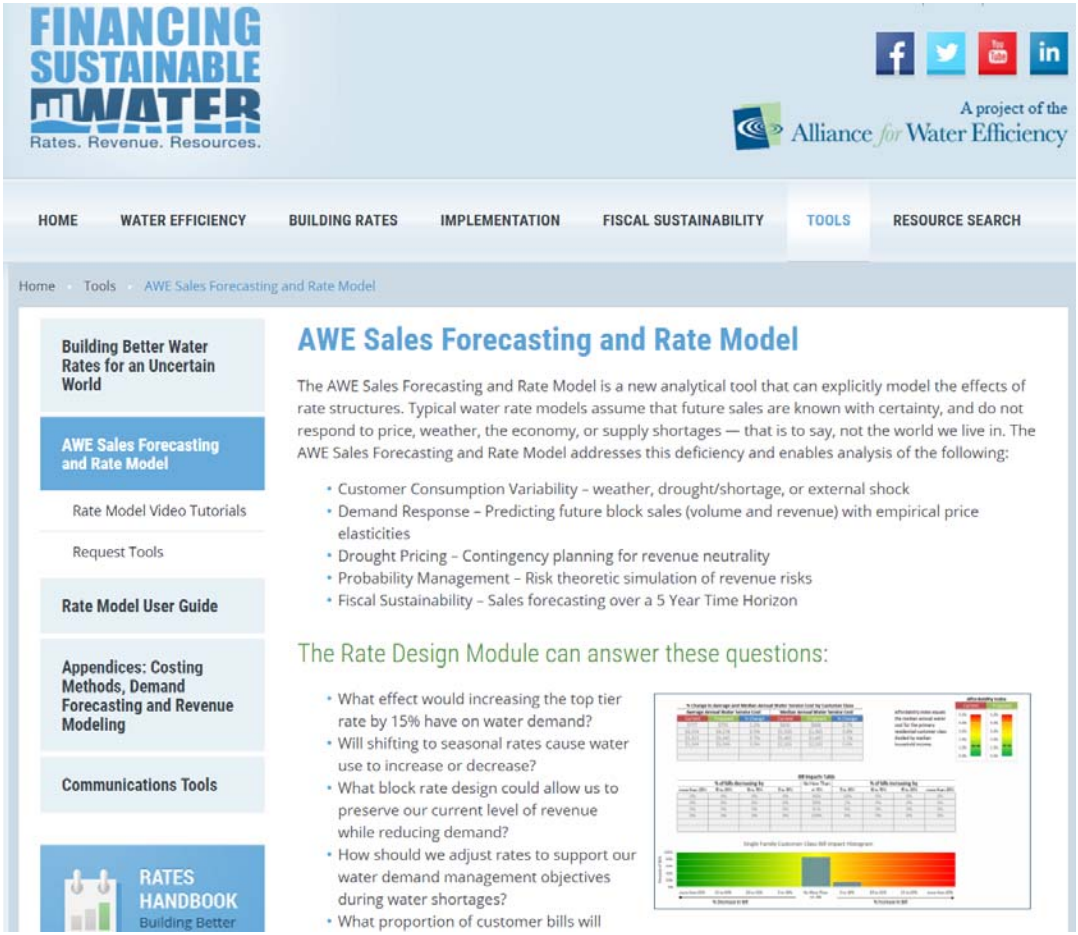
Find the most up-to-date version in Resources / Tools

Free, simplified Excel tool allowing you to model and compare two rate structures on your projected fund balance



AWE Sales Forecasting and Rate Model

Available at
http://www.financingsustainablewater.org/

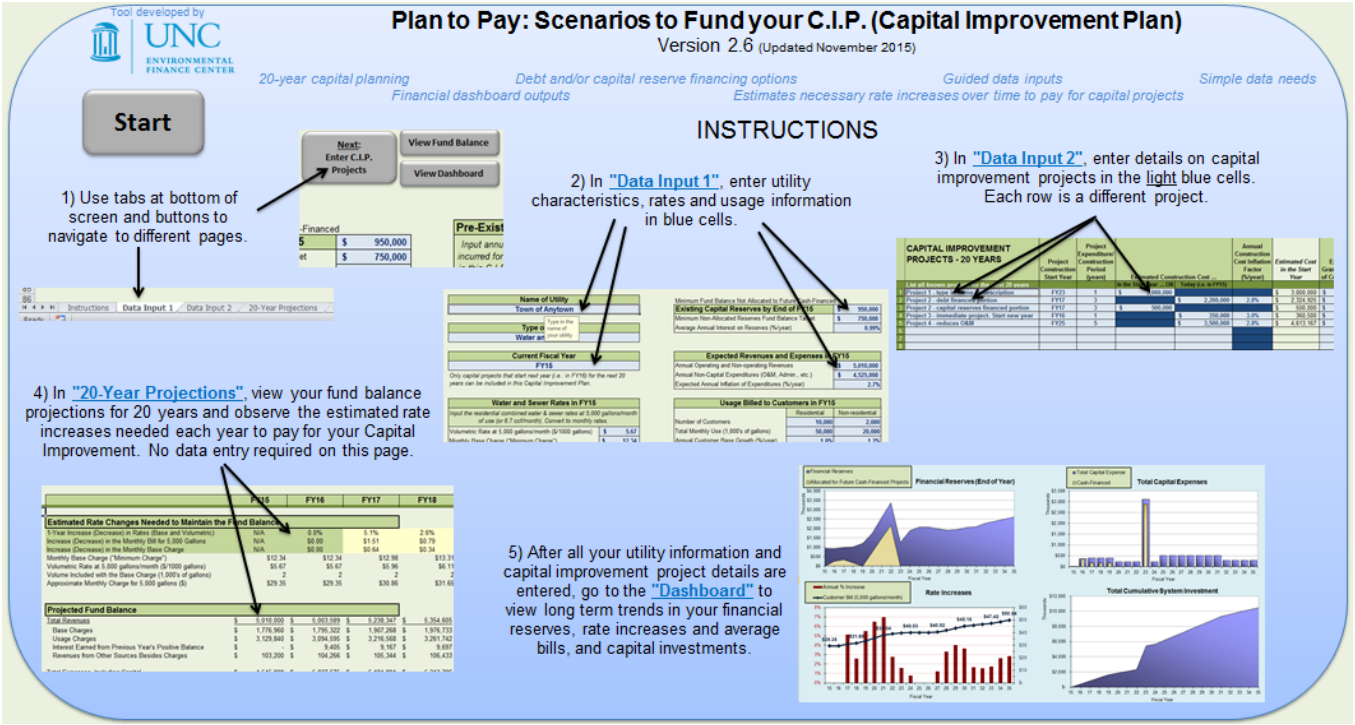


Plan to Pay: Scenarios to Fund your C.I.P.

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

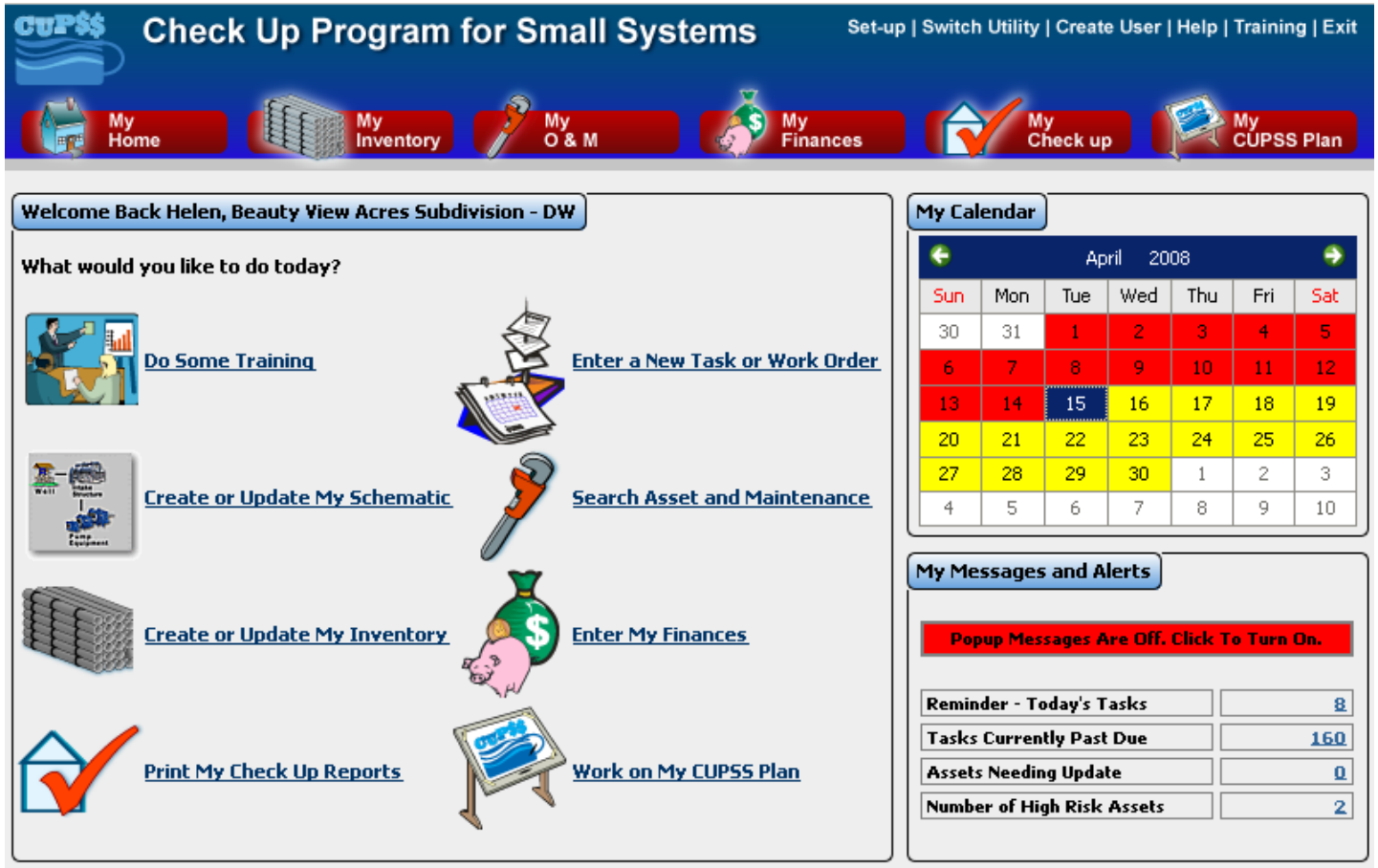
Find the most up-to-date version in Resources / Tools

Free, simplified Excel tool allowing you to list your capital projects and plans for funding them, and automatically estimates rate increases



Software: CUPSS (EPA)

http://www.epa.gov/cupss/



Guidebooks on setting rates/financial planning

http://www.awwa.org

EPA United States Environmental Protection Agency

Setting Small Drinking Water System Rates for a Sustainable Future

One of the Simple Tools for Effective Performance (STEP) Guide Series

http://www.epa.gov/safewater/smallsystems

http://www.epa.gov/ogwdw/smallsystems/pdfs/guide_smallsystems_final_ratesetting_guide.pdf

https://www.epa.gov/dwcapacity/asset-management-resources-small-drinking-water-systems

EPA United States Environmental Protection Agency

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Building the Capacity of Drinking Water Systems

- Building the Capacity of Drinking Water Systems Home
- About Small Systems
- Small System Resources
- Information for States
- Compliance Help
- Capacity Development Partners
- EPA Capacity Development Contacts

Asset Management Resources for Small Drinking Water Systems

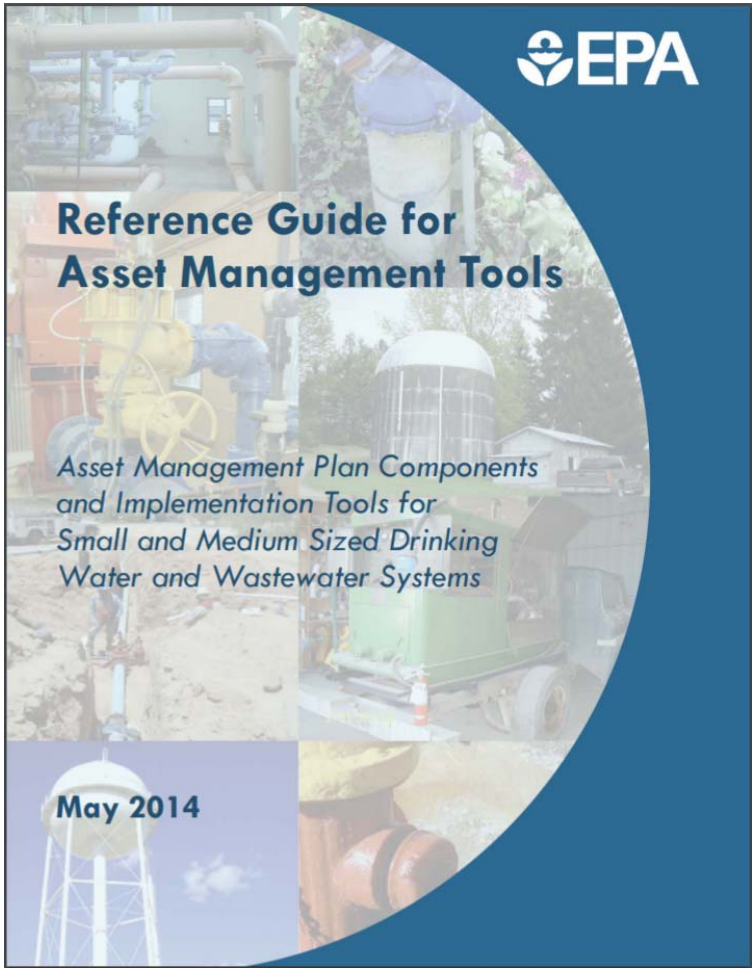
Asset management is the practice of managing infrastructure capital assets to minimize the total cost of owning and operating them, while delivering the service level customers desire. This management framework has been widely adopted by the water sector as a means to pursue and achieve sustainable infrastructure.

The documents and tools below explain the benefits of asset management and ways to implement specific asset management practices for small systems.

You may need Adobe Reader to view files on this page. See EPA's About PDF page to learn more.

- Asset Management: A Best Practices Guide (PDF) (4 pp, 244 K, April 2008, EPA 816-F-08-014)

https://www.epa.gov/sites/production/files/2016-04/documents/am_tools_guide_may_2014.pdf



Resource Webpage for Capital Planning

www.efc.sog.unc.edu/ Search for “Capital Planning”

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UNC ENVIRONMENTAL FINANCE CENTER

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About Services Programs Resources Eve

Mission Statement

We work to enhance the ability of governments and other organizations to provide environmental programs and services in fair, effective and financially sustainable ways.

Project Tools

User-friendly Capital Improvement Plan (CIP) Tool for Water & Wastewater Utilities

Calculator, 03/20/2014 (MS Excel, 802 Kb)

Enter in all capital projects and this tool will project your fund balance (revenues, expenses and reserves), and necessary rate increases for the next 20 years, and more!

What to Include in your Capital Plan:

PROJECT

CAPITAL PLANNING AND WASTEWATER

This project, p
Support projec
Department of
together many
water and wast
creation of a C
Management P

Blog Post on "Using an Index to I Future"

Read a short blog post on selecting an appropri

Summary of

"What to Include in Your Capital Plan: A Reference Guide for NC Water and Wastewater Utilities"

Last updated: February 2011

Categories	EPA's "Asset Management: A Handbook for Small Water Systems"	Jack Vogt (SOG Faculty)'s "Capital Budgeting and Finance Guide"	DENR PWSS Capacity Development Program	DENR PWSS Loans and Grants	DENR DWQ Construction Grants and Loans	G.S. 159G-23	USDA Loans and Grants	NC Rural Economic Development Center	Local Government Commission 108-C Form	EPA Drinking Water Needs Survey	DENR DWR Local Water Supply Plans	EPA Software: CUPSS
Goal statement/Introduction to your capital plan		☑						☑				☑
Date of documentation of capital plan	☑			☑						☑		☑
Capital planning time period	☑	☑	☑	☑	☑	☑	☑	☑		☑	☑	☑
Description of systems			☑	☑	☑		☑	☑			☑	☑
Existing capacity and demand			☑	☑	☑	☑	☑	☑			☑	☑
Description of customers			☑	☑	☑	☑	☑	☑	☑		☑	☑
Inventory of existing assets (details on each asset)	☑		☑	☑	☑			☑			☑	☑
Condition of systems			☑	☑	☑	☑	☑	☑	☑		☑	☑
Project-specific details (complete for each project in every year)	☑	☑	☑	☑	☑	☑	☑	☑		☑		☑
Financial planning (complete for each year in time period)	☑	☑	☑	☑	☑	☑	☑	☑	☑			☑
Long-term planning descriptions (may be not project-specific)			☑	☑	☑	☑		☑			☑	☑
Approvals		☑		☑	☑	☑	☑	☑		☑		
Updating the capital plan	☑		☑			☑		☑		☑		☑
Ties or links to other studies	☑			☑	☑	☑	☑	☑			☑	

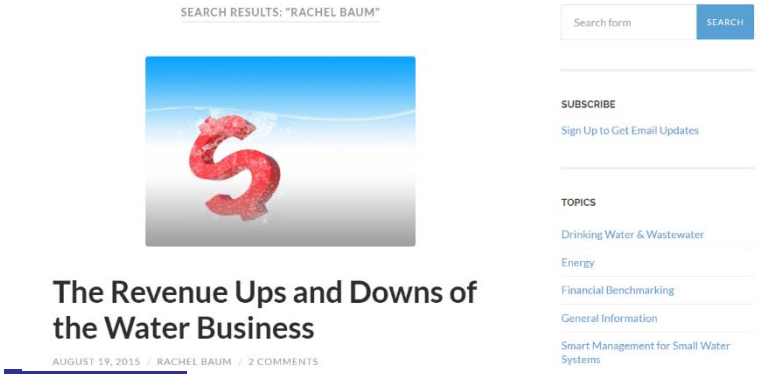
For updates and to view details in each category, go to http://www.efc.unc.edu/projects/capitalplanning.html

Created by the Environmental Finance Center at the UNC School of Government

Environmental Finance blogs

http://efc.web.unc.edu/

or http://efcnetwork.org/small_systems_blog/

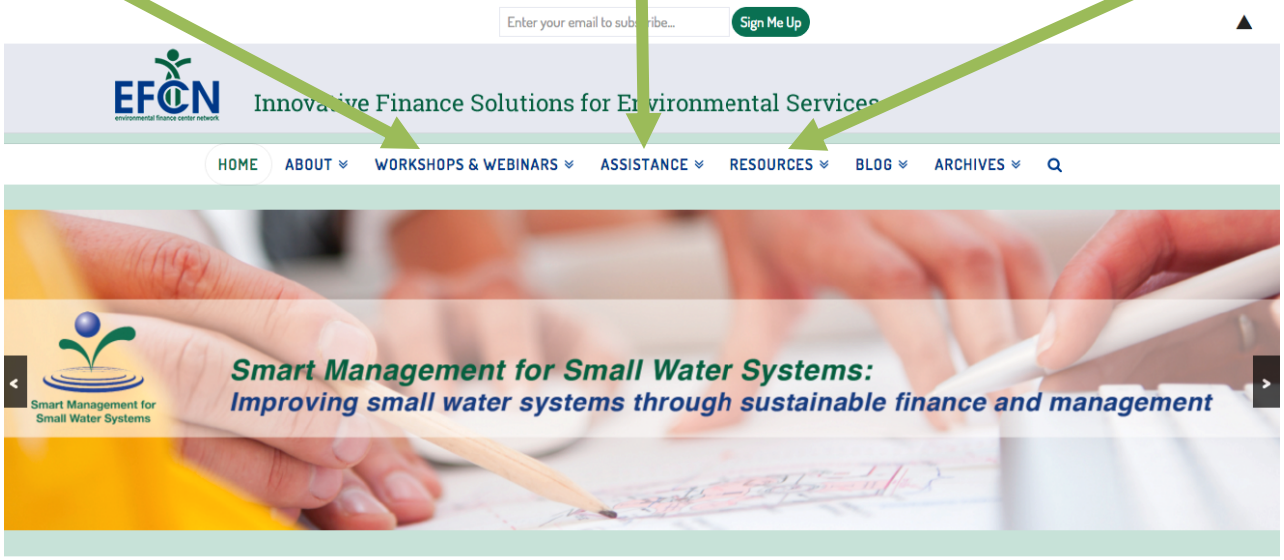


Small water systems: www.EFCNetwork.org

Workshops, webinars, and recordings

Sign up for free in-depth (multi-day or multi-hour) direct assistance

Collection of resources for small water systems (tools, guides)



Free, thanks to a cooperative agreement with the U.S. E.P.A.

Financing for the Future: Financial Longevity for Municipal Operations

Shadi Eskaf

Senior Project Director

Environmental Finance Center at the University of North Carolina, Chapel Hill

919-962-2785

eskaf@sog.unc.edu

http://efc.sog.unc.edu

This webinar was presented under a cooperative agreement with the U.S. E.P.A.

http://EFCNetwork.org