



Beyond Rates: Funding and Other Finance Strategies



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Session Objectives

- Learn about other common sources of water system revenue and controlling costs
- Understand the debt market
- Discuss available loan and grant programs



Options for controlling O&M costs

1. Perform a water audit (EPA style)
2. Find and reduce leaks
3. Efficiency and accuracy of your meter reading, billing and collections
4. Replace water meters (some meters become less accurate over time)
5. Ensure that power rates are most appropriate for your water system



Options for controlling O&M costs

6. Install energy efficient equipment or modify operations to lower energy use
7. Track expenses over time and look for different vendors or labs if costs grow too quickly
8. Share resources between departments
9. Partner with another water system
10. Another option: transfer the assets of the water system



Control Costs

- Partner with other water systems to arrange a bulk purchase of chemicals
- Perhaps consider sharing staff or equipment with other water systems
- Join NCWaterWARN (ncwaterwarn.org)



ncwater listserv

- Free to sign up
- Ask a question, everyone on listserv gets your question. Any reply goes to all on the listserv too.
- Ask questions, share information, announcements of training courses, etc.
- Administered by the EFC at the School of Government
- Sign up at **efc.sog.unc.edu** (search for “ncwater”)



External Funding



Everyone's Favorite: Grants

How can I get them?

Are they sustainable?

Who's handing them out?

Do they even exist?!



In reverse order

Do they even exist?!

Yes

Who's handing them out?

Mostly DWI (DEQ)

Are they sustainable?

No!

How can I get them?

Compete, fiercely



What are the DWI grants?

- Community Development Block Grant-Infrastructure (CDBG-I)
- State Project Grants
- Merger/Regionalization Feasibility Grant
- Asset Inventory and Assessment Grant



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



Quick Thought on Grants

- This presentation is about ***sustainable*** program finance
- Grants are not sustainable finance. They are a one-time source of funding that's nice to have but not reliable or consistent by any means.



The Main Source of Funding: Your Revenue

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



Types of Revenue

- Rates
- Period charges
- Assessments
- One-time fees
- Innovative funding sources (services)
- Debt (commercial and subsidized)



Periodic Charges

- Deposits on new accounts
- Penalties for late payment
- Cutoff/reconnection fees
- Meter re-reading fees



Assessments

- A recurrent charge to a sub-group of the population
- The sub-group receives benefits from an environmental service or improvement not enjoyed by others in the area
- Close cost/benefit relationship → equity



Tap & System Development Fees (Impact Fees)

- One-time charges to new users
- Tap/Connection Fees: cost of labor and materials to physically connect a premise to the distribution network
- Impact Fee/SDC: a capacity charge



Recent changes to NC impact fees/SDC – August 2016

- No change to districts/authorities
- Municipalities: can no longer charge impact fees!
 - Unless, perhaps, can show that fees are priced to pay for services already being furnished to the premise (no future capital costs, no double-charging past capital costs, charged pursuant to development agreement)



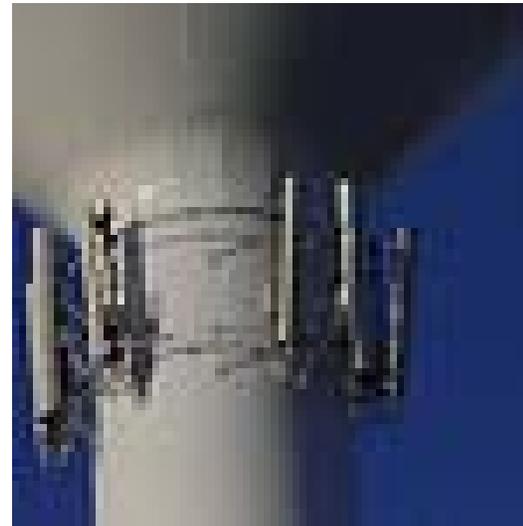
Recent changes to NC impact fees/SDC – August 2016

- See Kara Millonzi and [Jeff Hughes](#) blogs (SOG *Coates Canons* and EFC *Environmental Finance*) listed at <http://www.efc.sog.unc.edu/project/north-carolina-water-and-wastewater-rates-and-rate-structures>
- Or view a recorded SOG/EFC webinar video at <http://www.efc.sog.unc.edu/event/webinar-update-water-utility-authority-charge-impact-fees-and-other-upfront-charges>



Innovative Funding Sources

- For example, rent out your water tower for cellphone receivers or put ads on the tower itself





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



The Debt Market

- Two types—Loans and Bonds
 - Loans are universally available
 - Bonds are typically only available to large systems with significant revenues and managerial capacity



Loans

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



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



Common Debt Options

Advantage

Disadvantage

G.O. Bonds:

Low Relative Interest Cost;
Lower Issuance Cost

Referendum Required
(Politically Sensitive); Lower
Structuring Flexibility

Revenue Bonds:

Greater Flexibility (Term,
Amortization); No
Referendum; Advantageous
for Self Supporting Systems

Higher Issuance Cost
Higher Relative Interest Cost;
Feasibility Study

Installment Purchase/Certi- ficate of Participation

No Referendum; Lower Cost
of Issuance for Private
Placements

Secured by asset, Placement,
limits future options



Some Projects Can Be Funded by a Single Source But Many Require More Than One Source of Funding



Subsidized Loan & Grant Programs in NC

- Division of Water Infrastructure (NCDEQ)
- USDA
- NC Dept of Commerce (EDA, ARC)
- Golden Leaf Foundation

See matrix with contacts and information at <http://efcnetwork.org/resources/funding-sources-by-state/>



Division of Water Infrastructure

<http://portal.ncdenr.org/web/wi/>

The screenshot shows the website's header with the title "Division of Water Infrastructure" and navigation links: "WATER INFRASTRUCTURE HOME", "ABOUT THE DIVISION", "STATE WATER INFRASTRUCTURE AUTHORITY", "FUNDING PROGRAMS AND APPLICATION INFORMATION", and "FUNDING PROCESS". A search bar and "Text" options are also visible. The main content area includes a news item about funding decisions on January 18, 2017, and a feature about water infrastructure needs in NC. A large green and blue water drop logo is positioned on the right. Below the logo is a photo of a drainage structure with the caption "Pine Knoll Shores East End Drainage". A "CONNECT NC Investing in our future." banner is also present, with a link to learn more about Governor McCrory's plan. At the bottom, a section titled "How can we help you?" contains six green buttons: "I Need Funding", "About the Division", "I Have Funding", "State Water Infrastructure Authority", "News and Events", and "Contacts".



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Division of Water Infrastructure



[Funding Programs and Application Information](#)

Funding Programs and Application Information

The division provides low interest loans and grants for local governments and certain other non-profit entities for water infrastructure through a number of programs. A brief description of each program is provided below. Additional information for each program can be found by clicking on the link.

Contact us if you need assistance determining which program is the best fit for your project needs!

Clean Water State Revolving Fund (CWSRF): Provides low interest loans to local government units to fund wastewater collection and treatment facilities as well as programs associated with estuary and non-point sources.

Drinking Water State Revolving Fund (DWSRF): Provides low interest loans to local government units and certain non-profit water corporations for projects to provide safe drinking water.

Community Development Block Grant - Infrastructure: Provides grants to local government units to address water and wastewater infrastructure needs in HUD qualified low to moderate income communities.

State Wastewater & Drinking Water Reserve Programs: Provides grants for technical assistance and for construction of critical needs for wastewater collection systems, wastewater treatment works, and public water system projects.

Merger/Regionalization Feasibility Grant Program: Provides grants for studies to evaluate the potential consolidation of two or more systems into one system and the potential physical interconnection with another system for regional wastewater treatment or regional water supply.

Asset Inventory and Assessment Grant Program: Provides grants for developing asset inventories, condition assessment of critical assets, and other components of a comprehensive asset management programs.

Application Process

- Applications are accepted either once or twice per year, depending on the funding program.
- Depending on the funds available and the number of applications received, funding awards are often competitive.

Application Deadlines

- CWSRF: Sept. 30, 2016
- CDBG-I: Sept. 30, 2016
- DWSRF: Sept. 30, 2016
- State Project Grants: Sept. 30, 2016
- AIA Grants: Sept. 30, 2016
- MRF Grants: Sept. 30, 2016

Application Training

- [Application Training Workshops: August 2016](#)



WW





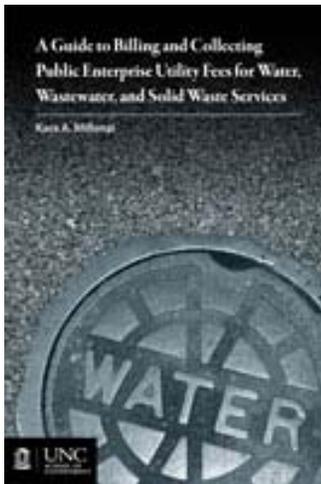
Closing

School of Government resources on Enterprise Funds

<http://www.sog.unc.edu/>, click on Publications

A Guide to Billing and Collecting Public Enterprise Utility Fees for Water, Wastewater, and Solid Waste Services

(Kara Millonzi)



POPULAR GOVERNMENT

Jeff Hughes The Painful Art of Setting Water and Sewer Rates

- An increase in energy and transportation
- Almost \$1 billion in assets and more than \$1 billion in annual revenues?
- Changing regulations affecting the bottom line
- A backlog in capital investment needs
- Investments to replace old water systems
- Loss of major customers
- Innovative pricing and customer retention strategies
- Rising revenues

Does this scenario sound like Wall Street or the North Carolina business or utility industry? It does if you think like a business that is a part of business school professors' on its head and at high-level management?

There also are some characteristics of water and sewer companies owned by North Carolina local governments. These are not-for-profit organizations that provide essential drinking water and sewer services to their citizens. Many business distinguish provision of water and sewer services from other businesses, but the challenges of providing safe drinking water and sewer services are not so different. Many businesses would need to raise rates to cover the costs of providing these services. The financial difficulties of water and sewer utilities are not so different from those of other businesses. The financial difficulties of water and sewer utilities are not so different from those of other businesses.

Typically, all local governments that own water and sewer utilities are not-for-profit organizations. The financial difficulties of water and sewer utilities are not so different from those of other businesses. The financial difficulties of water and sewer utilities are not so different from those of other businesses.

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Table 1. These numbers are impressive. However, the proposed numbers are not. According to a study by the North Carolina Rural Economic Development Center, the state will need more than \$1 billion in investments to cover the capital needs for water and sewer infrastructure over the next 20 years.

In North Carolina, as throughout the country, water and sewer services are provided by local governments. The financial difficulties of water and sewer utilities are not so different from those of other businesses.

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“The Painful Art of Setting Water and Sewer Rates”
(Jeff Hughes)

Table 1. Financial Overview of Water and Sewer Enterprises Owned by North Carolina Local Governments

Number of enterprises	2007
Annual revenues	\$1,413,120,382
Assets	\$2,274,783,000
Operating costs	\$1,115,000,000

Source: Calculated by author using data from North Carolina Rural Economic Development Center, “The Financial Difficulties of Water and Sewer Utilities,” 2007. Data from Public Utilities, for fiscal year ending 06/30/2007.

<http://www.efc.sog.unc.edu/>

- Tools
- Rates Dashboards
- Blog posts (<http://efc.web.unc.edu>)
- Guidebooks
- Technical Assistance
- Courses
- Videos

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

Upcoming Events

- EcoStream: Southeast Stream Restoration Conference
Monday, November 17, 2014
- WEBINAR: Energy Management Planning Systems and the NYSERDA Model
Tuesday, December 2, 2014
- Environmental Public-Private Partnerships
Tuesday, December 9, 2014

Latest News

- **New Video Series Highlights Critical Financial Challenges for Water Utilities**
A new series of educational videos produced by the Environmental Finance Center at UNC Chapel Hill, with support from the Water Research Foundation, offers an engaging, accessible, and easily shareable resource on financial management topics designed specifically for water utility governing boards. The WaterClips Video Series addresses challenges faced by water utilities across the country using eye catching visualizations and easy to understand explanations of concepts that can otherwise be daunting.
- **The EFC Awarded \$2M for its Smart Management for Small Water Systems Project**
To improve the country's smallest water systems - those serving fewer than 10,000 people - the U.S. Environmental Protection Agency (EPA) awarded \$2 million to the Environmental Finance Center at the University of North Carolina at Chapel Hill.

Featured Work

- **Arizona Water and Wastewater Rates and Rate Structures**
The Environmental Finance Center and the Water Infrastructure Finance Authority of Arizona conducted a water and wastewater rates survey of over 400 utilities in the state of Arizona. We used this data to create a summary report, interactive Rates Dashboard, and other resources to assist utilities and their stakeholders in analyzing and benchmarking their current rates and financial condition.
- **Smart Management for Small Water Systems**
Through the Smart Management for Small Water Systems project, the EFC works to improve the financial and managerial capabilities of the nation's smallest, most plentiful, and neediest public water systems - those serving fewer than 10,000 people.
- **Water & Wastewater Residential Rates Affordability Assessment Tool**
The EFC's new easy-to-use Excel tool guides a utility to assess the relative affordability of its water and wastewater rates on its residential customers using



Smart Management for Small Water Systems

under a Cooperative Agreement with the US EPA

<http://efcnetwork.org>

- The EFCN (including the EFC at the UNC School of Government) will provide free trainings, webinars, tools and direct assistance to small water systems serving fewer than 10,000 people on:
 - Asset Management
 - Water Loss Reduction
 - Water System Collaboration
 - **Fiscal Planning and Rate Setting**
 - Energy Management
 - Funding Coordination, and
 - Managerial and Financial Leadership
- **Free in-depth (multi-day or multi-hour) assistance available. Sign up at <http://efcnetwork.org/assistance/request-assistance/>**





Let's Revise Our Quiz!



1) Local governments' water systems are funded by revenues from the General Fund

- A. True
- B. False
- C. I don't know



2) A debt service coverage ratio of +0.9 is:

- A. A sign of financial trouble ☹️
- B. A sign of good financial health 😊
- C. I don't know



3) Nationally, construction costs are:

- A. Growing at the current rate of inflation
- B. Growing at about 3%/year
- C. Relatively stable
- D. Lower than before the Great Recession
- E. I don't know



4) An Asset Management Plan starts with

- A. A list of future capital projects
- B. Projections of population growth
- C. An inventory of the water system's equipment
- D. I don't know



5) The majority of a water system's revenues depends on how much water customers use

- A. True
- B. False
- C. I don't know



6) Municipalities in NC are allowed to charge “impact fees” for water:

- A. True
- B. False
- C. It depends
- D. I don't know



7) Grants for water systems in NC:

- A. Are non-existent
- B. Are limited and highly competitive
- C. Fund a significant number of projects
- D. Are basically “free money”
- E. I don’t know



Thank You!

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Get Your 6.0 Credits!

Operators

- Complete and return evaluation form
- Scan your operator card
- Sign out (name and ID)
- Pick up certificate

P.E.s

- Complete and return **TWO** evaluation forms
- Sign out (name and ID)
- Pick up certificate
- **Self-report** online when you are home/at work