



Agenda

UNC School of Government Environmental Finance Center

2015 Water and Wastewater Finance

February 10-11, 2015

Friday Center

100 Friday Center Drive, Chapel Hill, NC

Tuesday, February 10

9:00 Continental Breakfast/Registration

9:30 **Introduction/Capital Finance Overview**

[*Jeff Hughes*](#), Director, School of Government Environmental Finance Center

10:30 Break

10:45 **Water Finance Legal Issues and Trends**

Update on evolving legal issues (e.g. availability charges, impact fees, inter local agreement Pre-audit requirements, Pending Cases)

[*Kara Millonzi*](#), School of Government

12:00 Lunch

1:00 **Water and Sewer Rates!**

Jeff Hughes

[*Shadi Eskaf*](#), Senior Project Director Environmental Finance Center

[*David Tucker*](#), Project Director Environmental Finance Center

3:00 Break

3:15 **Wholesale Rates and Inter-local Agreements**

Jeff Hughes

Joseph Martin, Woodfin Water and Sanitary District

4:30 **Adjourn**



Wednesday, February 11

- 8:00** Continental Breakfast
- 8:30** **One Time Capital Charges and Fees (System Development Charges, Assessments, Impact Fees ETC.)**
Jeff Hughes
- 9:30** Break
- 9:45** **How's Your Utility's Financial Health?**
Discussion of different approaches and systems for measuring financial capability
Ted Damutz, Moody's Investor Service
Ted Cole, Davenport & Company LLC
- 10:45** Break
- 11:00** **Creative Water and Wastewater Finance**
What's New and Emerging in the world of water finance (Distributed Infrastructure, Green Bonds, Micro-Bonds, Assessment Bonds, P3)
Jeff Hughes
Mary Tiger
Adam Parker, Sanford Holshouser LLP
- 12:00** Lunch
- 1:00** **Finding the Money! Capital Finance Programs and Options**
Louis Lloyd, Retired BB&T
Dennis Delong, USDA Rural Development Water and Sewer Programs
Kim Colson, Director, State Water Infrastructure Finance Authority (SWIA), NCDENR
Seth Robertson, SWIA-CWSRF
Amy Simes, SWIA-DWSRF
Stephanie Morris, SWIA-CDBG
- 3:00** Wrap up and adjourn

10.5 Continuing Education Hours

Individuals seeking PDH credit should submit this agenda and license # to NC BELS

Water Treatment Operators and Water Pollution Control Operators should sign a course attendance roster at the conclusion of the course at the registration desk.

Water and Wastewater Finance: Legal Issues & Trends

Kara Millonzi
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February 2015



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Common Legal Issues

- Availability fees
- Impact/Capacity/System fees
- Transfers
- Preaudit requirements



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Availability Fees

- Charge on developed property that is not connected to unit's water/sewer line
 - Not applicable to "dry taps"
- Charge cannot exceed periodic administrative/overhead fee that unit assesses on properties that are connected



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Availability Fees

Municipalities

- Can require developed properties to connect to water/sewer lines located within reasonable distance
- In lieu of requiring connection, can charge availability fee

Counties

- Can require developed properties to connect to water/sewer lines located within reasonable distance
- Can charge availability fee only on properties that qualify for issuance of building permit but have not yet been developed

Impact Fee



- Capacity fee, system fee, capital fee
– Label does not matter

**Any charge to generate \$
for future capital costs**

Relevant Case Law

- *South Shell Investment v. Town of Wrightsville Beach*, 703 F.Supp. 1192 (1988) (Town "had the authority to impose impact and tap fees under the public enterprise statute and that *no specific enabling legislature [was] necessary.*")
- *Town of Spring Hope v. Bissette*, 305 N.C. 248 (1982) (rates charged to current customers can reflect both current operating costs and future capital costs necessary to continue to provide the service)
- *Atlantic Construction Co. v. City of Raleigh*, 230 N.C. 365 (1949) (city had authority to charge reasonable connection fees and to otherwise "fix the terms upon which the service may be rendered and its facilities used.")

Relevant Case Law

- Union Land Owners Ass'n v. County of Union, 201 N.C. App. 374 (2009), *disc. rev. den'd*, 364 N.C. 442 (2010) (no implied impact fee authority)
- Amward Homes, Inc. v. Town of Cary, 206 N.C. App. 38 (2010), *aff'd by an equally divided court*, 365 N.C. 305 (2011) (no implied impact fee authority)
- Larvale Properties, LLC v. County of Cabarrus, 366 N.C. 142 (2012) (no implied impact fee authority)



Counties and Municipalities May....

- “[e]stablish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished by any public enterprise.”



Water and Sewer Authorities May...

- set “rates, fees, and other charges for the use of and for the services furnished *or to be furnished* by any water system or sewer system or parts thereof owned or operated by the authority.”



Is there authority?

- Monthly charge to current water customers, \$12.50 fixed + \$15.00 per 1000 gallons
- \$400 tap fee to install meter and establish new account
- \$750 capacity fee assessed on new development
- \$1200 connect fee on all properties that connect

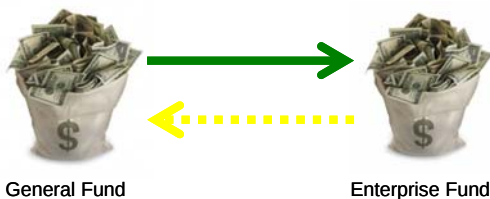


Why Care?

- G.S. 160-363; G.S. 153A-324
 - if unit found to have illegally exacted a fee for development approval that is not specifically authorized by law, city shall return fee plus 6% interest per annum
- G.S. 6-21.7
 - if court finds unit outside the scope of its legal authority, the court may award reasonable attorneys' fees and costs to the party who successfully challenged the city's or county's action, provided that if the court also finds that the city's or county's action was an abuse of its discretion, the court shall award attorneys' fees and costs.



Transfers



Transfers

- From General Fund to an Enterprise Fund
 - Authorized by G.S. 153A-276; G.S. 160A-313
- From Enterprise Fund to General Fund (or any other fund)
 - Authorized by G.S. 159-13(b)(14)
 - But, G.S. 159G-37



NCDENR SRF Certification

Applicant's Certification:

I certify that no funds received from water or wastewater utility operations have been transferred in the last fiscal year from the water and/or sewer enterprise fund to the general fund for the purpose of supplementing the (Local Government Unit) resources of the general fund in accordance with § 159G-37.(b) except as allowable and are listed below.



Preaudit





G.S. 159-8

"[A]ll moneys received and expended by a local government or public authority should be included in the budget ordinance [or project ordinance]. . . No local government or public authority may expend any moneys, regardless of their source, except in accordance with a budget ordinance or project ordinance...."

– Exceptions:

- Moneys accounted for intragovernmental service fund
- Moneys accounted for in a trust or agency fund



Obligating and Disbursing Public Funds

Preaudit Process (G.S. 159-28(a))

Triggered when:

- A unit enters into contract or agreement or places an order for goods or services that are accounted for in the budget ordinance or a project ordinance; **AND**
- the unit is obligated to **pay money** by the terms of the contract/agreement/order; **AND**
- (if the appropriation is accounted for in the budget ordinance) the unit anticipates paying at least some of the money in the fiscal year in which the contract/agreement/order entered into.

Disbursement Process (G.S. 159-28(b) & (d))

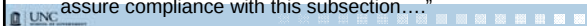
Triggered when:

- A unit pays invoice, bill, or other claim that is accounted for in the budget ordinance or a project ordinance



Preaudit Statute (G.S. 159-28(a))

- "No **obligation** may be incurred in a program, function, or activity if an ordinance or project ordinance is not an appropriation sufficient to obligate or an obligation requiring the payment of money or by a purchase order for supplies and materials, **the contract, agreement, or purchase order shall include on its face a certificate stating that the instrument has been preaudited to assure compliance with this subsection....**"



Preaudit applies to:

- Purchase orders (POs)
- Purchases below PO threshold
- Service contracts
- Phone / Internet orders
- Credit / Procurement / Fuel Card payments
- Employment agreements (even at-will)
- Interlocal agreements
- Etc.



Is a Preaudit Required?

- City and county enter into a five year bulk water sale agreement whereby county agrees to purchase water from the city. The county will pay based on city's rate schedule.
 - Must the city preaudit the contract?
 - Must the county preaudit the contract?

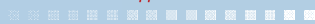


G.S. 159-28(a): What is Process?

Finance Officer (or deputy finance officer) must:

1. Check to see if there is an appropriation in budget ordinance or project ordinance for amount due this fiscal year
2. Check to see if sufficient funds remain in the appropriation to cover amount that will come due this fiscal year
3. **Memorialize contract/agreement/order in writing***
4. Affix signed preaudit certificate to "writing" that evidences contract/agreement/order

** New requirement as per 2012 & 2013 NC Court of Appeals decisions*





G.S. 159-28(a): Certificate



"This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act."

(Signature of finance officer or deputy finance officer)

- *Not required on any contracts approved by LGC.*

Penalties for not following Process

- Contract/agreement/order is VOID and cannot be enforced
- Any individual or officer who enters into contract/agreement /order or causes funds to be disbursed without following statutory processes may be held personally liable for amounts committed or disbursed



Select Statutory Provisions

Availability Fees

1. Counties

§ 153A-284. Power to require connections.

A county may require the owner of developed property on which there are situated one or more residential dwelling units or commercial establishments located so as to be served by a water line or sewer collection line owned, leased as lessee, or operated by the county or on behalf of the county to connect the owner's premises with the water or sewer line and may fix charges for these connections. In the case of improved property that would qualify for the issuance of a building permit for the construction of one or more residential dwelling units or commercial establishments and where the county has installed water or sewer lines or a combination thereof directly available to the property, the county may require payment of a periodic availability charge, not to exceed the minimum periodic service charge for properties that are connected. (1963, c. 985, s. 1; 1965, c. 969, s. 2; 1973, c. 822, s. 1; 1979, c. 619, s. 13; 1995, c. 511, s. 3.)

2. Municipalities

§ 160A-317. Power to require connections to water or sewer service and the use of solid waste collection services.

- (a) **Connections.** - A city may require an owner of developed property on which there are situated one or more residential dwelling units or commercial establishments located within the city limits and within a reasonable distance of any water line or sewer collection line owned, leased as lessee, or operated by the city or on behalf of the city to connect the owner's premises with the water or sewer line or both, and may fix charges for the connections. In lieu of requiring connection under this subsection and in order to avoid hardship, the city may require payment of a periodic availability charge, not to exceed the minimum periodic service charge for properties that are connected.

Transfers

§ 159-13. The budget ordinance; form, adoption, limitations, tax levy, filing.

- (b) (14) No appropriation may be made from a utility or public service enterprise fund to any other fund than the appropriate debt service fund unless the total of all other appropriations in the fund equal or exceed the amount that will be required during the fiscal year, as shown by the budget ordinance, to meet operating expenses, capital outlay, and debt service on outstanding utility or enterprise bonds or notes.

§ 159G-37. Application to CWSRF, DWSRF, and Drinking Water Reserve.

- (a) **Application.** - An application for a loan or grant from the CWSRF, the Wastewater Reserve, the DWSRF, or the Drinking Water Reserve must be filed with the Division of Water Infrastructure of the Department. An

application must be submitted on a form prescribed by the Division and must contain the information required by the Division. An applicant must submit to the Division any additional information requested by the Division to enable the Division to make a determination on the application. An application that does not contain information required on the application or requested by the Division is incomplete and is not eligible for consideration. An applicant may submit an application in as many categories as it is eligible for consideration under this Article.

- (b) Certification. - The Division of Water Infrastructure shall require all local governments applying for loans or grants for water or wastewater purposes to certify that no funds received from water or wastewater utility operations have been transferred to the local government's general fund for the purpose of supplementing the resources of the general fund. The prohibition in this section shall not be interpreted to include payments made to the local government to reimburse the general fund for expenses paid from that fund that are reasonably allocable to the regular and ongoing operations of the utility, including, but not limited to, rent and shared facility costs, engineering and design work, plan review, and shared personnel costs. (2005-454, s. 3; 2011-145, s. 13.3(kkk); 2013-360, s. 14.21(i); 2013-413, s. 57(u); 2014-100, s. 14.17; 2014-115, s. 17.)

Preaudit Requirement

§ 159-28. Budgetary accounting for appropriations.

(a) Incurring Obligations. - No obligation may be incurred in a program, function, or activity accounted for in a fund included in the budget ordinance unless the budget ordinance includes an appropriation authorizing the obligation and an unencumbered balance remains in the appropriation sufficient to pay in the current fiscal year the sums obligated by the transaction for the current fiscal year. No obligation may be incurred for a capital project or a grant project authorized by a project ordinance unless that project ordinance includes an appropriation authorizing the obligation and an unencumbered balance remains in the appropriation sufficient to pay the sums obligated by the transaction. If an obligation is evidenced by a contract or agreement requiring the payment of money or by a purchase order for supplies and materials, the contract, agreement, or purchase order shall include on its face a certificate stating that the instrument has been preaudited to assure compliance with this subsection unless the obligation or a document related to the obligation has been approved by the Local Government Commission, in which case no certificate shall be required. The certificate, which shall be signed by the finance officer or any deputy finance officer approved for this purpose by the governing board, shall take substantially the following form:

"This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act.

(Signature of finance officer)."

Certificates in the form prescribed by G.S. 153-130 or 160-411 as those sections read on June 30, 1973, or by G.S. 159-28(b) as that section read on June 30, 1975, are sufficient until supplies of forms in existence on June 30, 1975, are exhausted.

An obligation incurred in violation of this subsection is invalid and may not be enforced. The finance officer shall establish procedures to assure compliance with this subsection.

(b) Disbursements. - When a bill, invoice, or other claim against a local government or public authority is presented, the finance officer shall either approve or disapprove the necessary disbursement. If the claim involves a program, function, or activity accounted for in a fund included in the budget ordinance or a capital project or a grant project authorized by a project ordinance, the finance officer may approve the claim only if

- (1) He determines the amount to be payable and
- (2) The budget ordinance or a project ordinance includes an appropriation authorizing the expenditure and either (i) an encumbrance has been previously created for the transaction or (ii) an unencumbered balance remains in the appropriation sufficient to pay the amount to be disbursed.

The finance officer may approve a bill, invoice, or other claim requiring disbursement from an intragovernmental service fund or trust or agency fund not included in the budget ordinance, only if the amount claimed is determined to be payable. A bill, invoice, or other claim may not be paid unless it has been approved by the finance officer or, under subsection (c) of this section, by the governing board. The finance officer shall establish procedures to assure compliance with this subsection.

(c) Governing Board Approval of Bills, Invoices, or Claims. - The governing board may, as permitted by this subsection, approve a bill, invoice, or other claim against the local government or public authority that has been disapproved by the finance officer. It may not approve a claim for which no appropriation appears in the budget ordinance or in a project ordinance, or for which the appropriation contains no encumbrance and the unencumbered balance is less than the amount to be paid. The governing board shall approve payment by formal resolution stating the board's reasons for allowing the bill, invoice, or other claim. The resolution shall be entered in the minutes together with the names of those voting in the affirmative. The chairman of the board or some other member designated for this purpose shall sign the certificate on the check or draft given in payment of the bill, invoice, or other claim. If payment results in a violation of law, each member of the board voting to allow payment is jointly and severally liable for the full amount of the check or draft given in payment.

(d) Payment. - A local government or public authority may not pay a bill, invoice, salary, or other claim except by a check or draft on an official depository, a bank wire transfer from an official depository, or an electronic payment or an electronic funds transfer originated by the local government or public authority through an official depository. Except as provided in this subsection each check or draft on an official depository shall bear on its face a certificate signed by the finance officer or a deputy finance officer approved for this purpose by the governing board (or signed by the chairman or some other member of the board pursuant to subsection (c) of this section). The certificate shall take substantially the following form:

"This disbursement has been approved as required by the Local Government Budget and Fiscal Control Act.

(Signature of finance officer)."

An electronic payment or electronic funds transfer must be subjected to the pre-audit process. Execution of the electronic payment or electronic funds transfer shall indicate that the finance officer or duly appointed deputy finance officer has performed the pre-audit process as required by G.S. 159-28(a).

Certificates in the form prescribed by G.S. 153-131 or 160-411.1 as those sections read on June 30, 1973, or by G.S. 159-28(a) as that section read on June 30, 1975, are sufficient until supplies in existence on June 30, 1975, are exhausted.

No certificate is required on payroll checks or drafts on an imprest account in an official depository, if the check or draft depositing the funds in the imprest account carried a signed certificate.

As used in this subsection, the term "electronic payment" means payment by charge card, credit card, debit card, or by electronic funds transfer, and the term "electronic funds transfer" means a transfer of funds initiated by using an electronic terminal, a telephone, a computer, or magnetic tape to instruct or authorize a financial institution or its agent to credit or debit an account.

(e) Penalties. - If an officer or employee of a local government or public authority incurs an obligation or pays out or causes to be paid out any funds in violation of this section, he and the sureties on his official bond are liable for any sums so committed or disbursed. If the finance officer or any properly designated deputy finance officer gives a false certificate to any contract, agreement, purchase order, check, draft, or other document, he and the sureties on his official bond are liable for any sums illegally committed or disbursed thereby. (1971, c. 780, s. 1; 1973, c. 474, ss. 22, 23; 1975, c. 514, s. 12; 1979, c. 402, ss. 7, 8; 2010-99, s. 1; 2012-156, s. 1.)

How's Your Utility's Financial Health?

UNC School of Government Environmental Finance Center
2015 Water and Wastewater Finance



February 10-11, 2015

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Topics for Discussion

- Introduction.
 - Identify the Characteristics of a Financially Strong Utility System.
- Multi-Step Approach to Establishing a Financially Strong Utility System.
 - Perform an Internal Assessment of Historical Financial Performance.
 - Develop Peer Comparative and Benchmarking Analyses to Identify Relative Strengths and Weaknesses.
 - Project Future Financial Performance to Achieve Identified Goals.
 - Establish a Series of Policies and Procedures to Memorialize and Institutionalize Best Practices.
 - Implement a Multi-Year Plan.

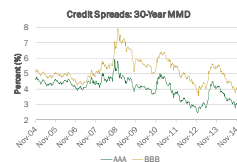
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Credit Quality

- Since the financial downturn, the credit quality of a utility system has become more important than in previous market environments.
- Credit rating agencies, banks and investors have increased the level of due diligence performed on transactions.
- On December 15, 2014 Moody's Investors Service issued a Rating Methodology for US Municipal Utility Revenue Debt and on December 10, 2014 Standard and Poor's released their proposed criteria for US Municipal Utility Systems. Fitch continues to operate under their established criteria.
- A Utility should not manage itself exclusively for rating agencies; however, often times good planning and rating agency strategies are aligned.
 - Multi-year Financial Planning.
 - Formalized Management Practices / Policies.
 - Comprehensive Approach to System Management (Regulatory Compliance, Capacity Issues, Competitive Rate Structure).



Credit Spreads (%) vs the 30-yr AAA MMD

Nov 2004 - Dec 2009			
Rating	Min.	Max.	Average
AAA	0.04	0.69	0.20
A	0.15	1.26	0.33
BBB	0.30	2.52	0.80

Dec 2009 - Jan 2015			
Rating	Min.	Max.	Average
AAA	0.09	0.56	0.22
A	0.27	1.11	0.75
BBB	0.69	2.56	1.40

Note: credit spreads compared to the AAA equivalent

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Characteristics of a Financially Strong Utility System

- System size and assessment base.
 - Larger systems can achieve economies of scale.
 - Smaller systems may have trouble raising revenues to meet large fixed costs.
- Economy and customer base.
 - Diverse customer base protects against loss of large customers.
 - Growing economy / population increase can stress a system's ability to meet capital and operating needs.
 - Wealth and income levels provide insight into the economic resources of the service area.
- Governance / Legal Provisions.
 - An independent Board often counters politicization of a utility.
 - Trust Agreements set minimum operating / financial standards for issuers in a contract with bond holders.
 - Rate Covenant.
 - Additional Bonds Test.
 - Debt Service Reserve Fund.

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Characteristics of a Financially Strong Utility System

- Management.
 - Adaptability to regulatory changes and financial constraints.
 - Sound staffing practices.
 - Established track record of financial management and regulatory compliance.
 - Financial Policy Guidelines.
- Strategic Focus.
 - Multi-year Capital Improvement Plan ("CIP") which includes current and projected capital needs for asset maintenance and expansion of user base.
 - Identified funding sources for CIP with a balanced mix of debt and pay-go financing.
 - Long-term financial forecasting minimizes financial uncertainty.
 - Proactive regulatory compliance planning process.
- Rates, rate structure, and rate-making flexibility.
 - Ability and willingness to set/raise rates to a sufficient level to meet all obligations and maintain reserves for emergencies.
 - Debt Service Coverage.
 - Liquidity.

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Characteristics of a Financially Strong Utility System

- Liquidity.
 - Systems with large, completed, and compliant capital improvement programs can afford narrower margins.
 - Adequate excess revenues (i.e. strong debt service coverage ratio) enable systems to cash-fund more capital needs.
- System Capacity.
 - Ability of current system capacity to support existing customers and future growth.
 - Additional needs in near-term and long-term to meet customer demand affect size and scope of capital programs.
- System Condition.
 - Age and repair of existing system facilities.

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Multi-Step Approach to Establishing a Financially Strong Utility System

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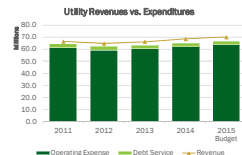
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6

Perform an Internal Assessment of Historical Financial Performance

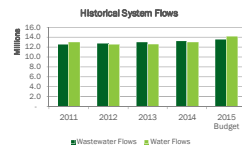
■ Evaluate Operating Revenues and Expenditures.

- Diversity of operating revenue sources.
- Source of revenue growth (e.g. customers, flows, rates).
- Operating revenues derived from contractual agreements.
- Nature of expenditure drivers (i.e. fixed contractual obligations vs. variable flow-driven expenses).
- Structural Operating Balance.



■ Identify Non-Operating Revenue / Expenditure Cash Flows.

- Capacity / development / connection fees.
- Transfers to / from the other funds (e.g. General Fund, Rate Stabilization Fund, etc.).
- Indirect cost allocations.
- Debt service costs.



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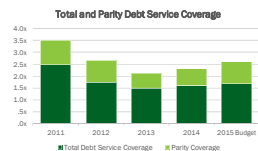
Perform an Internal Assessment of Historical Financial Performance

■ Capital Funding Activities.

- Historical debt issuance.
- Pay-as-you-go Capital Outlay.

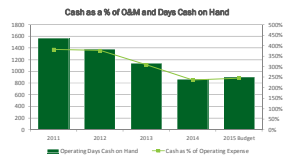
■ Liquidity Position.

- Identify both restricted and unrestricted resources.
- Measure liquidity relative to System Budget.
- Cash as a percentage of O&M Expenditures.
- Days Cash on Hand.



■ Debt Service Coverage.

- Parity.
- Subordinate.
- Total.



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8

Peer Comparative and Benchmarking Analyses

- Develop a meaningful peer group to identify relative strengths and weaknesses.

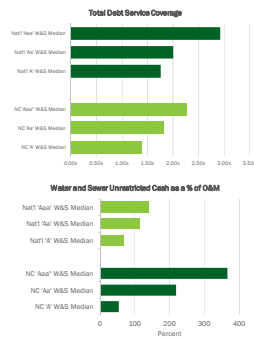
- Debt Ratios.
- Fund Balance / Liquidity Ratios.
- Customer Concentration.
- Service Area Characteristics.

- Peer Groups may include:

- Credit Rating Categories.
- Customer Base Size.
- Neighboring Utility Systems.

- Resources for benchmarking include:

- School of Government Dashboard.
- Credit Rating Agency Publications.
- Local Government Commission Reports.



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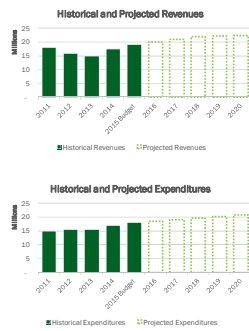
Forecast Future Financial Performance to Achieve Identified Goals

- Project Future Operating and Non-Operating Revenues.

- System flows, customer growth and required Rate Increases.

- Project Future Operating Expenditures.

- Overhead costs and contractual obligations.
- Variable costs driven by system demand and cost of materials.



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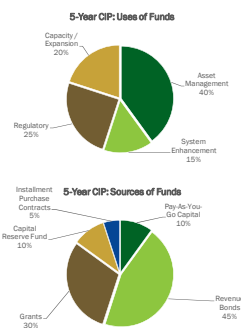
Forecast Future Financial Performance to Achieve Identified Goals

- Develop a multi-year Capital Improvement Program ("CIP") including:

- Identifying realistic capital and maintenance needs (not a wish list).
- Asset Management.
- System Enhancement.
- Regulatory.
- Capacity/Expansion.

- Assigning funding sources for all projects with a balanced approach of pay-as-you-go cash, grants, reserves and debt.

- Analyzing potential operating budget impacts associated with planned capital projects.



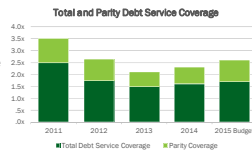
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Forecast Future Financial Performance to Achieve Identified Goals

- Analyze the forecasted revenues, expenditures and capital needs relative to financial ratios.
- Isolate the effect of key variables to stress test the system's financial performance.
 - Model various demand scenarios and the related impacts on revenues.
 - Expenditure inflation.
 - Parity vs. subordinate indebtedness.



- Calculate System capital funding capacity under a series of parameters including debt service coverage levels, liquidity measures and revenue growth.

System Funding Capacity - 5% Revenue Growth

	1.00x	1.25x	1.50x	1.75x
Cash	25,500,000	20,500,000	17,500,000	15,000,000
25%	24,500,000	19,500,000	16,500,000	13,500,000
50%	23,500,000	18,000,000	15,000,000	12,500,000
75%	22,500,000	17,000,000	14,000,000	11,500,000

- Measure potential Customer Rate Implications.
 - One-time increases vs. multi-year strategy.

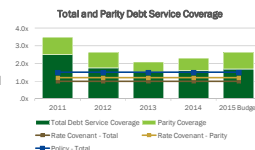
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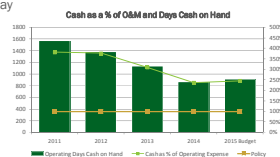
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Establish a Series of Policies and Procedures

- Financial policies can provide benefits to a number of parties by:
 - Establishing a policy / decision making framework for staff and the governing body.
 - Providing comfort to Rating Agencies, Banks and Investors that a utility system will manage itself in a responsible fashion.
 - Offer transparency to customers.



- A Financial Policy and Procedures Document may include:
 - Cash Management and Investment Policies.
 - Budgeting Policies.
 - Capital Improvement Planning Policies.
 - Debt Policies.
 - Liquidity Policies.



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Implement a Multi-Year Plan

- Memorialize the Plan through a series of Policy / Planning Documents.
 - Adopted Financial Policies and Guidelines.
 - Formalized Capital Improvement Plan.
 - Approved by the Governing Body.
 - Updated on a regular basis (e.g. annually or bi-annually).
 - Multi-Year Rate Strategy that is implemented by the Governing Body and is assessed annually as part of the budget process.



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Analysis of Water & Sewer Revenue Debt

Ted Damutz, Senior Credit Officer

UNC School of Government Environmental Finance Center Chapel Hill February 11, 2015

Water & Sewer Sector is Relatively Stable.....

- » Monopolistic service
- » Highly essential service
- » Operations (not finances) highly regulated
- » Relatively affordable
- » Paid from user fees generated from system operations



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.....But There are Risks for Some Systems

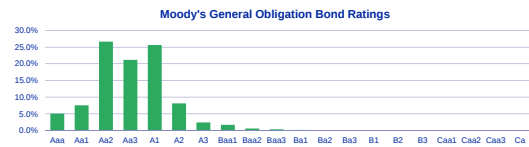
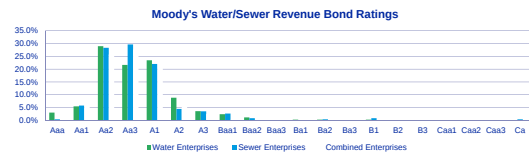
- » Public resistance to rate increases
- » Limitations to support from general government
- » Source constraints
- » Environmental consent decrees with state and federal regulators can result in significant additional debt
- » Risk from general government distress, even if separately secured or governed



3

Distribution of Water & Sewer Ratings Mirrors GO Ratings

» Average rating for both sectors is Aa3



Type of System

- » Water, sewer or combined water / sewer
- » Local retailer – water distribution, sewerage collection
- » Regional wholesaler – water supply, sewerage treatment
- » Integrated systems – supply / distribution or collection / treatment
- » Independent authority or part of a general purpose government

Areas of Analysis

- » Economy / Service Area
- » Management / Governance
- » Rate setting authority
- » Debt / Capital Needs / Regulatory Compliance
- » Covenants and Other Security Provisions
- » Financial Performance (Including Key Ratios)

Economy / Service Area

- » Signs of Strength
 - Growing or Stable, Diversified Economy
 - Predominance of Residential Ratepayers
- » Signs of Weakness
 - Economic or Population Decline
 - Other Economic Vulnerabilities
 - Rapid Population Growth
 - Ratepayer Concentration – Dominant Payers or Dominant Industry

Management / Governance

- » Signs of Strength
 - Regular, moderate rate increases
 - Independent rate setting authority
 - Conservative financial policies, consistently adhered to
- » Signs of Weakness
 - Infrequent, large rate increases
 - Rates not competitive
 - Politicized rate setting process
 - Problems with revenue collection
 - Absence of long-term planning
 - Violation of permits / regulations

Debt / Capital Needs / Regulatory Compliance

- » Signs of Strength
 - Capital needs identified and quantified; funding identified
 - Consistent record of completing capital projects on time and within budget
 - Manageable debt levels
 - Level or front-loaded debt structure
- » Signs of Weakness
 - Large, unaddressed capital needs
 - Construction risk or uncertainties about costs of capital program
 - Exposure to unhedged variable rate debt
 - Exposure to swap termination or bank bond acceleration
 - Backloaded debt structure

System Characteristics

- » How do we assess technical and operational characteristics of utility systems *for their credit implications*?
 - Prospective debt and rate structure heavily influenced by:
 - » Condition of system in terms of age, leakage/outage
 - » Capacity of system to meet current, future user demands
 - Is there other inherent value or risk?
 - » Saleable water rights, excess treatment capacity, landfill capacity are valuable
 - » Expiring permits, short term contracts for supply/treatment, dwindling owned resources add risk

Financial Performance – Summary

- » Signs of Strength
 - Ratios compare favorably to similar systems and medians
 - Current net revenues provide good coverage of peak debt service on outstanding bonds including new issue
- » Signs of Challenges
 - Ratios compare unfavorably to similar systems and medians
 - Operating ratio or debt ratio is rising; debt service coverage is declining
 - Net revenues need to grow (through future rate increases or increased system use) to cover future debt service on currently outstanding bonds
 - Dependence on connection fees and other volatile or non-recurring revenues
 - Assumptions underlying forecast appear optimistic given past trends

Financial Performance – Operating Ratio

- » Operating Ratio – O&M expenses divided by total operating revenues

Median Values – Operating Ratios	
	2013
Water Systems	64.6%
Sewer Systems	55.7%
Water / Sewer Systems	63.0%

Source: Moody's MFRA, Based on a population of 322 water systems, 222 sewer systems, and 360 water/sewer systems.

Financial Performance – Debt Service Coverage

- » Net revenues divided by annual principal and interest requirements

Median Values – Debt Service Coverage

2013

Water Systems	2.09x
Sewer Systems	1.89x
Water / Sewer Systems	1.95x

Source: Moody's MFRA. Based on a population of 322 water systems, 222 sewer systems, and 360 water/sewer systems.

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Financial Performance – Debt Ratio

- » Net funded debt divided by the sum of net fixed assets and net working capital

Median Values – Debt Ratio

2013

Water Systems	32.8%
Sewer Systems	38.4%
Water / Sewer Systems	32.7%

Source: Moody's MFRA. Based on a population of 322 water systems, 222 sewer systems, and 360 water/sewer systems.

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Update to US Municipal Utility Methodology

» Update to methodology

- Applies to all municipal utilities, including water, sewer, water and sewer, stormwater, gas, electric (non-generation), solid waste, and other combined utilities
- Quasi-monopolistic systems that provide essential services and are financed by user charges
- Vast majority are municipally owned

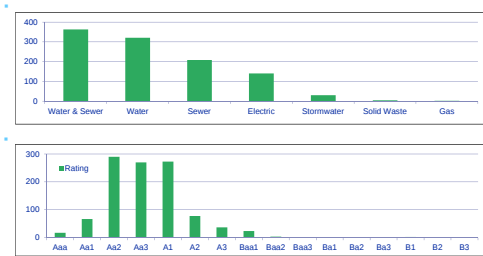
» Introduction of a scorecard

- Provides transparency and insight into the credit factors we consider important
- Includes a set of common rating factors and metrics that apply to all utilities, followed by "notching factors" that accommodate more individualized credit considerations
- Does not include every rating consideration – final ratings are determined only by a Rating Committee

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Current Municipal Utility Ratings

- » Moody's maintains approximately 1,100 municipal utility ratings
- » Ratings range from Aaa to Caa3, with a median rating of Aa3



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Municipal Utilities Scorecard Weighted Factors

Broad Scorecard Factors	Factor Weighting	Rating Sub-Factor	Sub-factor Weighting
System Characteristics	35%	Asset Condition (Remaining Useful Life)	10.0%
		Service Area Wealth (Median Family Income)	12.5%
		System Size (O&M)	7.5%
Financial Strength	35%	Annual Debt Service Coverage	15.0%
		Days Cash on Hand	15.0%
		Debt to Operating Revenues	10.0%
Management	20%	Rate Management	10.0%
		Regulatory Compliance and Capital Planning	10.0%
Legal Provisions	10%	Rate Covenant	5.0%
		Debt Service Reserve Requirement	5.0%
Total	100%	Total	100%

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1. System Characteristics (30%)

- » Asset Condition (10%) - *Net fixed assets/depreciation*
 - Proxy for the age and health of the system and where it stands in its useable lifecycle
 - An indicator of the ability to comply with environmental regulations and continue delivering adequate service with existing resources
- » Service Area Wealth (12.5%) - *MFI as % of US*
 - Income of residents within service area conveys capacity of ratepayers to afford rates necessary to fund operations and capital upgrades
- » System Size (7.5%) - *O&M expenditures*
 - Larger systems tend to be more diverse and enjoy economies of scale
 - Different types of systems have varying cost structures

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2. Financial Strength (40%)

- » Annual Debt Service Coverage (15%) – *Net revenues/debt service*
 - Measures capacity to pay annual debt service from net revenues of the system and demonstrates financial performance and margin of protection for debt repayment
- » Days Cash on Hand (15%) - *Cash and investments x 365/operating expenses*
 - Measures liquidity to meet expenses, cope with emergencies, and manage variances from forecasts
- » Debt to Operating Revenues (10%) – *Net debt/operating revenues*
 - Measures debt level relative to gross revenues and normalizes for difference in debt structure that may not be reflected in the annual debt service coverage metric

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3. Management (20%)

- » Rate Management (10%)
 - Assessment of track record of setting rates appropriately to cover operating expenses and capital costs
 - Ability and willingness to make timely changes when necessary
- » Regulatory Compliance and Capital Planning (10%)
 - Measure of utility's history of addressing state and federal regulatory requirements and meeting future capital needs

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4. Legal Provisions (10%)

- » Rate Covenant (5%)
 - Measures strength of legal commitment to set rates to cover operating costs and debt service, and usually an additional margin
- » Debt Service Reserve Requirement (5%)
 - Measures strength of debt service reserve requirements relative to scheduled debt service

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Below-the-Line Adjustments

■ Examples of notching factors addressing individualized credit considerations

- System Characteristics
 - Additional service area economic strength or diversity
 - Significant customer concentration
- Financial Strength
 - Extraordinarily high debt service coverage
 - Debt service coverage below key thresholds
- Legal Provisions
 - Structural enhancement and/or complexities
- Management
 - Unusually strong or weak capital planning

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Below-the-Line Adjustments: Factors not included in the grid

» Credit attributes that may result in ratings different from scorecard results

Adjustments/Notching Factors
Factor 1: System Characteristics
Additional service area economic strength or diversity
Significant customer concentration
Revenue per customer greatly over/under regional average
Exposure to weather volatility or extreme conditions
Resource vulnerability (1/3 or greater)
Sizeable or insufficient capacity margin
Weak depreciation/investment practices relative to industry norms
Other analyst adjustment to System Characteristics (Specify)
Factor 2: Financial Strength
Debt Service Coverage (Annual or MAQS) below key thresholds: Additional Bonds Test and 1.00x coverage
Constrained liquidity position due to oversized transfers
Oversized capital needs
Oversized ANPI relative to debt or significant ARC under-payment
Significant exposure to puttable debt and/or swaps or other unusual debt structure
Other analyst adjustment to Financial Strength factor (Specify)
Factor 3: Legal Provisions
Structural Enhancements/Complexities
Other analyst adjustment to Legal Provisions factor (Specify)
Factor 4: Management
Unusually strong or weak operational or capital planning
Other analyst adjustment to Management factor (Specify)
Other
Credit Event/Trend not yet reflected in existing data set

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Relationship with General Obligation Rating

» A municipal utility's credit quality is related to the strength of its associated local government entity. Examples of credit linkages include:

- Economy: Coterminous or overlapping economic base and service area
- Finances: Cash can often flow between the two entities
- Debt: Revenues to support GO and utility paid by the same group of constituents
- Management and Governance: Management teams may be the same or have close ties
- Capital Markets: GO and utility need to access the same capital markets for funding

» Rating levels are usually similar (within 2 notches) due to these linkages

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Larger Rating Differential Can Occur

- » Rare cases demonstrate independence from the associated GO rating and may warrant a greater notching difference. Typical features include:
- Non-coterminous service area with revenues coming from a substantially larger base
- Strict separation of accounts and assets
- Independent management and governance



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Questions?

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