An Overview of NC Water Service Providers

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For the NCGA Environmental Review Commission
Nov. 13, 2013
What NC community has the second-oldest public water supply system in the U.S.A.?
Classifying water systems: Federal* view

- “public water system” could be either publicly or privately governed.
- main ways to classify systems are based on size (customers or connections), permanence of users (transient or non-transient) and source of water (surface, ground, or purchase).

*As a fully delegated State under the Safe Drinking Water Act, NC also has laws that use this view
Classifying water systems: State view

- City/County
- Interlocal agreement
- Joint management agency
- County service district
- Sanitary district
- Water and sewer authority
- Metropolitan water district
- Metropolitan sewerage district
- County water and sewer district

- Private non-profit
- Private for-profit
  - Independently owned
  - Investor-owned
Powers, regulation, & review

- Powers (such as taxing, condemnation, police powers, required hookups) vary considerably
- Privately-governed entities are regulated by the Utilities Commission; others by DENR (historically also DHHS)/US EPA (HHS), Local Government Commission and local governing boards
- Enterprise systems are among the most important local government functions
- Operators also licensed and regulated by special licensing boards
- Policies of capital funding entities also regulate water system behavior
- Sources of info from review of systems include engineering & trade associations, SWIC/SWIA, UNC SOG/EFC, RWA, COGs, etc.
Public Water Systems in NC
(as of October 2012)

- **Community Water Systems**: 2,070
  - Very Small (up to 500 people served)
  - Small (501 - 3,300 people served)
  - Medium (3,301 - 10,000 people served)
  - Large (10,001 - 100,000 people served)

- **Non-Transient Non-Community Water Systems**: 396
  - Very Small (up to 500 people served)
  - Small (501 - 3,300 people served)
  - Medium (3,301 - 10,000 people served)
  - Large (10,001 - 100,000 people served)

- **Transient Non-Community Water Systems**: 3,556
  - Very Large (more than 100,000 people served)
Community Water Systems in NC
# Who’s in Charge of NC’s Community Water Systems?

<table>
<thead>
<tr>
<th>Local Government</th>
<th>Municipalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large and small</td>
<td>Regionally</td>
</tr>
<tr>
<td>County</td>
<td>Districts</td>
</tr>
<tr>
<td>Authority</td>
<td>Sanitary District</td>
</tr>
<tr>
<td>Metropolitan</td>
<td>Metropolitan Water/Sewerage District</td>
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<tr>
<td>Not-for-profit</td>
<td>Resorts</td>
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<tr>
<td>Private</td>
<td></td>
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<tr>
<td>Large, private</td>
<td></td>
</tr>
<tr>
<td>Small multi-system water</td>
<td>Corriher WS, Scientific W&amp;S, A&amp;D WS., etc.</td>
</tr>
<tr>
<td>Mobile home park</td>
<td>Homeowners association</td>
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<tr>
<td>State of NC</td>
<td>Federal Government (military bases)</td>
</tr>
</tbody>
</table>
Ownership of the Community Water Systems

By the numbers...

27% local government

73% private

<1% state/federal government

The 2,070 Active Community Water Systems in NC by Owner Type

- Owned by a local government (n=556) 27%
- Systems owned by Aqua NC or Utilities Inc. (n=791) 38%
- Private system owned by one of four multi-system water companies (n=34) 2%
- Private system owned by a single-system water organization (n=83) 4%
- Small, private system not owned by a water organization (n=595) 29%
- Owned by the state or federal government (n=11) 0%

Data analyzed by the Environmental Finance Center at the University of North Carolina, Chapel Hill. Data source: Public Water Supply Section of the Division of Water Resources in NC DENR's SDWIS database, data as of October 23, 2012. A "water organization" is a for-profit or not-for-profit company whose primary responsibility is the ownership, management and operation of a community water system. A "multi-system water company" is one company that owns at least five community water systems in NC.
Ownership of the Community Water Systems

By people served...

87% local government

11% private

2% state/federal government

Data analyzed by the Environmental Finance Center at the University of North Carolina, Chapel Hill. Data source: Public Water Supply Section of the Division of Water Resources in NC DENR's SDWIS database, data as of October 23, 2012. A "water organization" is a for-profit or not-for-profit company whose primary responsibility is the ownership, management and operation of a community water system. A "multi-system water company" is one company that owns at least five community water systems in NC.
Active Community Water Systems in NC in October 2012

Map created by the Environmental Finance Center at the University of North Carolina, Chapel Hill. Data sources: Public Water Supply Section of the Division of Water Resources in NC Department of Environment and Natural Resources. Geospatial locations determined by the EFC using secondary sources from NCOneMap (NC Center for Geographic Information and Analysis, NC Rural Economic Development Center, Public Water Supply Section of NC DENR) and primary sources (locating systems on Google Earth).
Community Water Systems Owned by Multi-System Water Companies

Map created by the Environmental Finance Center at the University of North Carolina, Chapel Hill. Data sources: Public Water Supply Section of the Division of Water Resources in NC Department of Environment and Natural Resources. Geospatial locations determined by the EFC using secondary sources from NCOneMap (NC Center for Geographic Information and Analysis, NC Rural Economic Development Center, Public Water Supply Section of NC DENR) and primary sources (locating systems on Google Earth).
Community Water Systems Owned by MHPs, Apartment Complexes, HOAs, Individuals, etc.

Map created by the Environmental Finance Center at the University of North Carolina, Chapel Hill. Data sources: Public Water Supply Section of the Division of Water Resources in NC Department of Environment and Natural Resources. Geospatial locations determined by the EFC using secondary sources from NCOneMap (NC Center for Geographic Information and Analysis, NC Rural Economic Development Center, Public Water Supply Section of NC DENR) and primary sources (locating systems on Google Earth).
Community Water Systems Owned by Local Governments

Map created by the Environmental Finance Center at the University of North Carolina, Chapel Hill. Data sources: Public Water Supply Section of the Division of Water Resources in NC Department of Environment and Natural Resources. Geospatial locations determined by the EFC using secondary sources from NCOOneMap (NC Center for Geographic Information and Analysis, NC Rural Economic Development Center, Public Water Supply Section of NC DENR) and primary sources (locating systems on Google Earth).
Utilities by Local Government Type

Map created by the Environmental Finance Center at the University of North Carolina, Chapel Hill. Data sources: Public Water Supply Section of the Division of Water Resources in NC Department of Environment and Natural Resources. Geospatial locations determined by the EFC using secondary sources from NCOneMap (NC Center for Geographic Information and Analysis, NC Rural Economic Development Center, Public Water Supply Section of NC DENR) and primary sources (locating systems on Google Earth).
## Local Government Water and Wastewater Utilities

<table>
<thead>
<tr>
<th>Type of Local Government</th>
<th>Number of Water/Wastewater Utilities</th>
<th>Had Lower Operating Revenues than Operating Expenditures + Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>13</td>
<td>3 / 12 (25%)</td>
</tr>
<tr>
<td>County/District</td>
<td>62</td>
<td>18 / 46 (39%)</td>
</tr>
<tr>
<td>Metropolitan Water/Sewer District</td>
<td>4</td>
<td>2 / 3 (67%)</td>
</tr>
<tr>
<td>Municipality</td>
<td>400</td>
<td>93 / 337 (28%)</td>
</tr>
<tr>
<td>Sanitary District</td>
<td>22</td>
<td>4 / 16 (25%)</td>
</tr>
</tbody>
</table>

Sources: Classification by EFC (guided by LGC data); Financial data in FY2012 collected by Local Government Commission and analyzed by the EFC
Examples* of new regional utilities in recent years *(not a complete list)*

- LCFWSA (wholesale) – 2003
- Lee County (Sanford acquired) – 2005
- Neuse RWSA (wholesale) – 2008
- CFPUA (Wilmington & New Hanover County) – 2008
- YVSA – 2009
- Piedmont Triad RWA (wholesale) – 2010
- Two Rivers Utilities (Gastonia & Cramerton) – 2011
- MCRWSA (wholesale) – 2013?
“Regional” Municipalities and Counties

Municipality that is more like a regional utility but is owned by the town

Municipality that provides retail service to other municipalities, but exists mainly to serve the municipality’s residents

Municipality, serving the town’s residents and some customers in nearby, unincorporated areas

County system that also serves residents in some of the incorporated areas of the county

County system that serves residents in all unincorporated areas of the county

County system that serves residents in specific unincorporated areas of the county

Water System Interconnections

- 30% of CWS have an interconnection with another system
- 26% can buy water from another system
- 11% have interconnections to buy water in case of emergency

Sources:
List of Systems: Public Water Supply Section (PWSS) at the NC Department of Environment and Natural Resources.
Locations: Environmental Finance Center (EFC) at the UNC School of Government and NC Center for Geographic Information and Analysis.
Interconnections: EFC compilation of data from PWSS (Sept. 2010) and primary data.
By Ownership Type
Do Water and Wastewater Rates Cover System Costs?

Local Government-Owned Water and Wastewater Utilities' Cost Recovery in FY 2012

- Operating revenues < operating expenditures (11%)
- Operating revenues < operating expenditures + principal + interest on long-term debt (19%)
- Operating revenues > operating expenditures + principal + interest on long-term debt (71%)

Depreciation is not included in operating expenditures. Data obtained from the Local Government Commission, analyzed by the Environmental Finance Center at UNC.

n = 420 (FY 2012)
Capital Needs for Utilities

• More than $10.0 billion in 20 years for water systems (EPA DWNS 2011)
  – Excludes needs for growth, fire protection, watershed protection, and more

• More than $6.6 billion in 20 years for wastewater systems (EPA CWNS 2008)
  – Excludes needs for stormwater
Existing Water & Wastewater Debt Among NC Local Government Utilities

• By end of FY2012, $8.1 billion (up from $6.7 billion by the end of FY2008)

• Vast majority of utilities have debt less than $2,000/account

• In FY2012, State funding agencies awarded >$170 million in funds ($143 in loans)

Sources: Financial data in FY2012 collected by Local Government Commission and analyzed by the EFC; Combined State Agency Water and Wastewater Funding Report SFY2012 (by NC Rural Economic Development Center)
NC water and sewer debt allocation among local governments with large outstanding debts* as of June 30, 2012

* Large debts = $300 million or more

Data analyzed by the University of North Carolina Environmental Finance Center.
Data Source: North Carolina Department of State Treasurer State and Local Government Finance Division.
North Carolina State debt not included in debt totals.

Source: Financial data in FY2012 collected by Local Government Commission and analyzed by the EFC
Bond issuance type trends for NC local government water and wastewater utilities from 1975 – 2012

Data analyzed by the University of North Carolina Environmental Finance Center.
Data Source: North Carolina Department of State Treasurer State and Local Government Finance Division

Source: Financial data in collected by Local Government Commission and analyzed by the EFC
EFC Resources for NC

http://efc.sog.unc.edu/

Please contact us for direct assistance or for data analysis/sharing

- Financial performance ratios for utilities
- All utilities’ rates over time
- Assessment of affordability
- Financial practices and policies of utilities
- Water system partnerships
- And more…
Acknowledgements

- Public Water Supply Section (Division of Water Resources, NC DENR)

- Local Government Commission at the Office of the State Treasurer