How the COVID-19 Pandemic has Affected Water/Wastewater Utilities in North Carolina

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Common COVID-19 Issues Affecting Utility Finance

- Changes in consumption patterns
  - Residential
  - Non-residential
  - Difficulty in forecasting
- Income and job losses affecting ability to pay
- Shifting policies regarding billing, payments, collections, shut-offs, etc.
  - Voluntary or mandatory prohibitions on fees, shut-offs
  - Payment plans and other customer assistance programs
- Changes to plans for rate increases
- Changes to capital projects/funding
- Managing revenue shortfalls
THE CONTEXT OF NORTH CAROLINA
North Carolina Water/Wastewater Utilities

- Nearly 2,000 community water systems
- About 490 local government utilities, serve ~90% of service populations. >$3.1 billion in rev.
- Fewer than 10 large investor-owned utilities with multiple systems
- Few large non-profit water associations; many small, independently-owned systems
**Timeline in North Carolina**

- **March**: NCUC moratorium on shut-offs (March 19 - August 31)
- **April**: NCUC moratorium on late fees (March 19 - ?)
- **May**: Statewide moratorium on residential shut-offs, late fees
  - EO 124 and 142 (March 31 - July 29)
- **June**: Monthly reports from all utilities statewide required by EO 124 / 142
- **July**: Monthly reports from all utilities statewide required by EO 124 / 142
- **August**: Some utilities voluntarily continued moratorium
- **September**: Monthly reports from NCUC-regulated utilities required by NCUC;
  - EFC surveying other utilities (not required)
- **October**:

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**EFC poll of 95 utilities**
- (April 29 - May 5)
Impact Assessment of the Pandemic

http://efc.sog.unc.edu/covid19nc

- Statewide assessment of all reporting utilities (August 26)
- Survey results of early pandemic effects on 95 utilities (April-May)
- All utilities’ data during entire EO 124/142 period (April through July)
- Case studies of two utilities
- Resources for resilience
EARLY CONCERNS (BEGINNING OF MAY)
Some Delays to Capital Projects

Roughly one-third of responding utilities reported delaying the start of a new capital project due to the pandemic

<table>
<thead>
<tr>
<th>Action</th>
<th>Percent of 95 Utilities</th>
</tr>
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<tbody>
<tr>
<td>Pausing/slowing a project for which construction has begun</td>
<td>6%</td>
</tr>
<tr>
<td>Delaying starting a project that was planned to start soon</td>
<td>34%</td>
</tr>
<tr>
<td>Accelerating starting a project</td>
<td>1%</td>
</tr>
<tr>
<td>Reducing the scope or funding for a project for which construction has begun</td>
<td>2%</td>
</tr>
<tr>
<td>Increasing the scope or funding for a project (current or planned)</td>
<td>2%</td>
</tr>
<tr>
<td>Delaying applying for a subsidized loan/grant by at least six months</td>
<td>2%</td>
</tr>
<tr>
<td>Accelerating interest in applying for a subsidized loan/grant for a shovel-ready project</td>
<td>3%</td>
</tr>
<tr>
<td>None of the above (no change to current or planned projects, or no projects)</td>
<td>56%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>4%</td>
</tr>
</tbody>
</table>

Results from utilities responding to a poll by the UNC Environmental Finance Center between April 29 - May 5, 2020. Not displaying "Other" responses. Total is greater than 100% because utilities could select more than one response. "None of the above" and "Don’t know" are mutually exclusive of all other responses.
Early Evidence and Fears of Net Revenue Losses

Nearly all utilities expected revenues to decrease, even if those decreases had not yet been realized

- Identified the amount that revenues are decreasing: 29%
- Revenues expected to decrease; uncertain of amount: 60%
- Revenues expected to stay the same or increase: 3%
- Don't know: 7%

Responses from 25 utilities that identified the amount that revenues are decreasing

- Estimated Revenue Losses Under Current COVID-19 Conditions

Results from utilities responding to a poll by the UNC Environmental Finance Center between April 29 - May 5, 2020. The first graph displays the full response of 95 utilities. The second graph displays summary data from text responses provided by 25 utilities that responded "Identified the amount that revenues are decreasing". Midpoints of reported ranges are displayed. Where dollar amounts of losses were reported, their percentage relative to FY2019 total operating revenues are calculated and displayed.
Concern about Financial Viability Over Extended Period

Only half of the small water systems were confident that they can continue to pay their expenses if current conditions lasted more than six months.

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<thead>
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<th>Duration</th>
<th>Percent of 49 Small Water Systems</th>
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<td>Couldn’t pay expenses prior to COVID-19 conditions</td>
<td>2%</td>
</tr>
<tr>
<td>Less than 2 months</td>
<td>4%</td>
</tr>
<tr>
<td>Between 2 to 6 months</td>
<td>18%</td>
</tr>
<tr>
<td>Between 7 to 12 months</td>
<td>20%</td>
</tr>
<tr>
<td>More than a year</td>
<td>29%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>27%</td>
</tr>
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Results from utilities responding to a poll by the UNC Environmental Finance Center between April 29 - May 5, 2020. Only small water systems’ (<10,000 service population) responses are displayed.
The Good News?
Reserves Had Grown Prior to the Pandemic

Median Days Cash on Hand among Active Local Government Utilities in North Carolina, FY1997 - FY2019

Analysis by the Environmental Finance Center at the University of North Carolina, Chapel Hill.
EFFECTS DURING STATEWIDE MORATORIUM
(APRIL – JULY)
### Aggregated Statewide Effects After Four Months of a Moratorium

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<th>Reported (not all utilities reported)</th>
<th>Estimated for Entire State</th>
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<td>Total arrears as of end of July</td>
<td>$ 52.9 million</td>
<td>$ 61.7 - $81.5 million</td>
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<td>Late fees and penalties forfeited</td>
<td>$ 20.1 million</td>
<td>$ 23.2 - $30.8 million</td>
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### Aggregated Statewide Effects After Four Months of a Moratorium

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<th>Estimated for Entire State</th>
<th>Aggregated % of Operating Revenues</th>
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<tr>
<td>Total arrears as of end of July</td>
<td>$ 52.9 million</td>
<td>$ 61.7 - $81.5 million</td>
<td>~ 2.5%</td>
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<tr>
<td>Late fees and penalties forfeited</td>
<td>$ 20.1 million</td>
<td>$ 23.2 - $30.8 million</td>
<td>&lt; 1%</td>
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Results vary widely across individual utilities.
% of Accounts with Past Due Bills
(End of July 2020)

Nearly 15% of utilities reported more than 20% of their customers had past due bills as of July 31

Assessing data from 206 utilities that reported at least one account with past due bills as of July 31, 2020.
Accounts with Past Due Bills Increased from Last Year

Accounts with past due bills were 17%-29% higher in 2020 than at the same time last year.

Assessing data from 84 utilities that reported at least one account with past due bills in each month in 2019 and in 2020.

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.
Average Amounts on Past Due Bills (End of July 2020)

Average past due bills as of July 31, 2020 were less than $200 for 65% of utilities

Assessing data from 203 utilities that reported >$0 in arrears and at least one account with past due bills as of July 31, 2020.

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.
Trends During the Moratorium: April through July 2020

Number of accounts with past due bills generally did not increase, but the average amount owed increased.
Arrears as % of Operating Revenues

Nearly 23% of utilities had the equivalent of more than 3% of total operating revenues in arrears as of July 31, 2020

Assessing data from 150 local government utilities that reported >$0 in arrears as of July 31, 2020, and for which their FY2019 total operating revenues were known (source: Local Government Commission at the NC Department of State Treasurer).
**Forfeited Late Fees as % of Operating Revenues**

**Nearly 56% of utilities lost less than 1% of total operating revenues after four months of voiding late fees and penalties**

Assessing data from 117 local government utilities that reported >$0 late fees and penalties that were avoided in each month between April and July, 2020, and for which their FY2019 total operating revenues were known (source: Local Government Commission at the NC Department of State Treasurer).

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.
Accounts that were Eligible for Disconnection in July 2020

Nearly 22% of utilities could have disconnected more than 10% of their customer accounts

More than 156,300 customers were spared disconnections in July

21% of utilities in 2020 (7% in 2018*)

Assessing data from 203 utilities that reported at least one account eligible for disconnection in July 2020.

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.

* Based on a survey of 137 North Carolina utilities conducted in 2017-2018 by the UNC EFC and North Carolina League of Municipalities. Samples of utilities were different in both years.
Accounts that were Eligible for Disconnection
(April – July 2020)

Number of customers that could have been disconnected for non-payments increased between April and June, but decreased in July

Assessing data from 155 utilities that reported at least one account that was eligible to be disconnected due to non-payment in each month between April and July.

Analysis of all North Carolina water/wastewater utilities that reported data in accordance with EO 124/142.
Financial resiliency tool and case study of COVID-19 impacts on a system

Elsemarie Mullins
Financial Resilience tool

- Use unrestricted cash to see how much revenue loss a system can withstand
- How long will your unrestricted cash and reserves offset different levels of revenue losses and still cover expenditures on O&M?

http://efc.sog.unc.edu/financialresiliencedashboard
For North Carolina:

- Inserted data for North Carolina utilities
- 2019 Financials
- 10% decrease in revenue
- No depreciation

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<th>Number of Days Utility Can Cover Operations</th>
<th>Just Operating Expenses</th>
<th>Operating Expenses and Debt Service</th>
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<tr>
<td>&lt;180</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>180-364</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td>365 or more</td>
<td>91%</td>
<td>84%</td>
</tr>
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Even including debt service coverage, most utilities have enough cash on hand to cover 10% revenue losses for more than 365 days (n=433).
Case Study: Yadkin Valley Sewer Authority

Scenario 1 and 2 Inputs

Large industrial customer usage

Commercial usage

Delinquencies
Case Study: Yadkin Valley Sewer Authority

- Deficit going into FY21; tightened O&M budget
- 50c/Base, 75c/Volumetric rate increase
Other financial resilience highlights:

• Systems who rely on one big customer are more vulnerable to large decrease in revenue if that customers consumes less (universities, industrial plants, schools)

• Rate structures by customer class affects revenue when consumption shifts

• Donation programs can help with revenue recovery

• Wide range in interpretation of use of CARES funds

• Impact of delayed rate increases (or capital projects) will be seen in the years to come.
Dedicated to enhancing the ability of governments and other organizations to provide environmental programs and services in fair, effective and financially sustainable ways.

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