May 21, 2020

Viable Utility Reserve Committee
of the State Water Infrastructure Authority

Department of Environmental Quality
Division of Water Infrastructure
Agenda Item B
Approval of Meeting Minutes
Agenda Item C
Distressed Criteria Review
Distressed Criteria Overview

• Five bill language elements (Green)
• Criteria developed by the Authority (Purple)
• Financial criteria by the Local Government Commission (Red)
  • Some financial criteria provided for context and how parameters could be used
  • Some financial criteria may also represent other areas (i.e., organizational, infrastructure)
Spreadsheet Overview

• Criteria Overview
  • Each element represented
  • Threshold values – if exceed = Yes
  • All weighted same

• Criteria Scoring
  • Total thresholds exceeded for each utility
  • Missing data noted
  • Number of systems above overall score threshold

• Key Data
  • Data values
  • Some additional data not used as criteria
  • Missing data
Spreadsheet Overview

- System names not shown
  - Each system provided an alias
  - Alias provides context

- Alias elements

<table>
<thead>
<tr>
<th>LGU Type</th>
<th>Random Number</th>
<th>Utility Type</th>
<th>Viability Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC – Town / City</td>
<td>1,</td>
<td>Both – drinking water and sewer</td>
<td>NV – not viable</td>
</tr>
<tr>
<td>C – County</td>
<td>2,</td>
<td>DW – drinking water only</td>
<td>LD – likely distressed</td>
</tr>
<tr>
<td>S – Special Purpose</td>
<td>3,</td>
<td>WW – wastewater only</td>
<td>AAA – highly rated</td>
</tr>
<tr>
<td>etc.</td>
<td></td>
<td>Bulk – primarily bulk provider</td>
<td></td>
</tr>
</tbody>
</table>
Criteria Discussion

• Review what parameters are used
• Scoring discussion
  • Thresholds
  • Scoring – exceed threshold or not
  • Incorporate more scaling?
• Parameters may reflect multiple focus areas
  • Unit Assistance List – Organizational, Financial, and/or Infrastructure?
  • Compliance – Organizational, Financial, and/or Infrastructure?
Criteria Discussion

• Demographics
  • Population
  • Population change

• Compliance

• Infrastructure

• Rates

• Financial
**Population**

- Population
  - <10,000 population (bill language)
  - Additional weighting for very small systems?

- Population Change
  - North Carolina – just over 4%
  - Currently use 1%
  - Median for towns / cities: +/- 1.8%
  - Highest 10th percentile: +/- 23%
  - Lowest 10th percentile: +/- -19%
### Compliance Data

- **Wastewater Systems (NPDES and non discharge)**
  - Number of limit violations
  - Percent of non-compliant inspections
  - Flow moratorium

- **Collection Systems**
  - Number of SSOs
  - Number of SSO/mile
  - System without any inspections or violations

- **Drinking water systems**
  - MCL violations
  - Treatment technology violations
Pros and cons of using compliance data as an indicator of a distressed LGU

• Pros
  • Compliance data is available through DEQ’s Division of Water Resources
  • Non-compliance is an indicator that necessary action by the LGU may not be occurring
  • Allows for systematic approach with easily reproducible results

• Cons
  • Different levels of noncompliance
    • Notice of deficiency (NOD), Notice of violation (NOV), Civil penalty Assessment
  • Not all LGUs have permitted systems
  • Some LGUs have multiple systems
  • Data may be more indicative of a troubled system, not a troubled LGU
Coordination with DWR compliance program

- DWR can provide background for violations not apparent in data
- DWR can provide up to date information on system
- DWI can provide indicator data on system that may be struggling in other areas (financial, organizational)
Wastewater Treatment Considerations

Limit Violations

- Violations indicate inability of system to meet demand
- Violations may indicate inability of owner to operate, maintain, or adapt

Monitoring and Reporting Violations

NPDES WW

>5 violations = 1 pt (80%)
>12 violations = 2 pts (90%)
Wastewater Treatment Considerations

Monitoring Violations
Non Discharge WW

>20 violations = 1 pt (80%)
>80 violations = 2 pts (90%)
Wastewater Treatment Considerations

• Non-compliant inspections
  • Violations indicated inability to operate or maintain facility
  • Minimum inspection requirements
    • Larger (major) systems inspected 1 every 2 years
    • Smaller (minor) systems inspected 1 every 5 years
• Systems with >49% of inspections that resulted in violations were identified to be at risk (1 priority point)
Wastewater Treatment Considerations

Total Wastewater Treatment Points (NPDES)

- 0 pt: 334 points
- 1 pt: 61 points
- 2 pts: 45 points
- 3 pts: 6 points

Limits violations + % non-compliant inspections > 1

Total Wastewater Treatment Points (ND)

- 0 pt: 41 points
- 1 pt: 12 points
- 2 pts: 3 points
- 3 pts: 3 points
Wastewater Treatment Considerations

• Moratorium – action that restricts the ability of the system to add more users
  • 90% Rule - average annual flow > 90% permitted flow
  • 80% Rule - average annual flow > 90% permitted flow
  • Statutory – cannot adequately treat additional wastes

• Facilities with Statutory or 90% Rule moratorium were identified as at risk
  • Currently 38 systems identified
Collection System Considerations

Number of Sanitary Sewer Overflows over 5 year period
• Indicates aging infrastructure
• Indicates owner may not be supportive of systems needs

SSO Violations

>3 SSO Violations/5 years = 1 pt (80%)
>9 SSO Violations/5 year = 2 pts (90%)
Collection System Considerations

SSOs/mile of collections system
- Large systems will have more SSOs
- SSO/mile likely better indicator of a system in disrepair or not being maintained

>0.2 SSO/mile = 1 pt (80%)
>0.4 SSO/mile = 2 pts (90%)
Collection System Considerations

Total Collection System Points

- 213 pts (0 points)
- 52 pts (1 point)
- 97 pts (2 points)

- 19 pts (3 points)
- 19 pts (4 points)

SSO pts + (SS)/mile pts > 2
Collection System Considerations

Systems not reporting SSO’s and not receiving inspections

• System <200,000 gpd are deemed permitted
  • No inspection requirement
  • Deemed permitted systems with a permit # have been inspected or have self reported SSO at some time in the past

• Likely candidates for not operating or maintaining their system

• Recommended that these systems be flagged for discussion with DWR Regional office staff to determine if they are at risk
  • Currently 9 systems identified
Drinking Water Treatment Considerations

- Water systems with MCL violations that have open compliance schedules (i.e., not returned to compliance)
- Violations indicate inability of system to meet demand
- Violations indicate inability of owner to operate, maintain, or adapt
  - Currently 24 systems identified
Drinking Water Treatment Considerations

Water systems with open treatment technique violations

• Violations indicate inability of system to upgrade system to provide appropriate treatment
• Currently 0 system identified
Infrastructure

- Population per mile of collection or distribution line
- Threshold 100 people / mile pipe
- Does not consider treatment facilities
  - Considered depreciable assets / capita
  - Highly depreciated assets made difficult to use
- For collection systems, lack of data for smaller systems
Infrastructure

- Collection systems – avg 107 (145 > 20k population)
- Distribution systems – avg 102 (240 > 20k population)
Rates

- High rates
  - Combined for combined systems
  - Individual for single provider systems
- Wastewater generally higher than drinking water
  - Drinking water $50 bill for 5,000 gal
  - Wastewater $60 bill for 5,000 gal
  - Combined $100 bill for 5,000 gal
  - Generally 80\textsuperscript{th} – 90\textsuperscript{th} percentile range
Financial – context

• Grants shown for informational purposes – not used
• Transfers
  • Some may represent expenses for general government
  • Transfer in or out counted (bill language)
• Debt Service Coverage Ratio
  • Debt service disproportionate to revenue (bill language)
  • Ratio threshold – 1.1
• Surplus w/ debt (revenue covers expenditures and any debt service)
• Surplus w/ test debt (if no existing debt)
Financial – context

• Percent depreciation
  • Threshold 50% (175 > 50%)
  • May be used by LGC

• Operating margin
  • Revenue > expenses
  • Include depreciation

• Unit assistance list
  • Control issues
  • Financial issues

• Days cash on hand
  • Not used
  • Data for context
Agenda Item C
Educational Component Update
Agenda Item D
Future Committee Meetings
Future Committee Meetings

• June 25 from 10:30 – 1:00 (scheduled)
• August (week of Aug. 10)
• September 16 (the day before Authority meeting)
• October (week of Oct. 26)
Agenda Item E
Concluding Remarks
Viable Utility Reserve Committee of the State Water Infrastructure Authority

Department of Environmental Quality
Division of Water Infrastructure

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