

State of North Carolina TAC Infrastructure Assessment

Technical Advisory Committee

November 4, 2020



Workplan Goal

3.1 Produce infrastructure data best practices document outlining what data can be shared easily (and how) and what data cannot be shared.



Approach

- Document the need for infrastructure data in the private and public sector
- Document layers and rationale behind infrastructure data sharing

Initial Tasks

Identify and document layers

- Identify layers produced
- Seek member feedback on data sharing
- Additional research on layers as directed

Document Use cases

- Private developer
- Coordination with SGUC, LGC, and FIC



Infrastructure Categories

- Water/Sewer
- Stormwater
- Electric
- Gas
- Telecom

Use Cases

- Private Development – Infrastructure availability and scale
- DOT – Transportation planning infrastructure location
- Emergency Management – Stormwater and infrastructure location
- DEQ – service areas
- Broadband -availability



Sharing Data – Current Practices

Presented 3 options to data providers and asked them to sort each layer

1. Open Sharing
2. Sharing through as secure website (user authenticated)*
3. By individual request only

*Possible MOA or preauthorization



Sharing Data – Current Practices

- Documentation
 - Differences in how data producers share specific layers.
 - Rationale for why an organization shares the layer in the way it does.
- Discussion
 - Findings (similarities/differences)

Results: Open Data Sharing

Layers

Electric

- Service Areas

Stormwater

- Control Measure
- Inlet and discharge points
- Manholes
- open channels
- Pond

Water/Sewer

- Easements
- Sewer Service Area
- Water Service Area

Rationale

- Should be developed and shared with attribution and metadata which articulates that presence/absence of a water service area is not a guarantee of service or an indicator of existing or future service capacity.
- Easements are not currently mapped in our jurisdiction. Maintained through deed references.
- Easements were not historically mapped for public utilities. However, we map them as we come across them through deed/plats as well as proactively map easements as they relate to utility development/improvement.



Results: By Secure Website

Layers

Stormwater

- SCM Outlets

Water/Sewer

- Water Service area buffers
- Sewer Basins
- Water Pressure Zones

Rationale

- **Sites risk/HLS/State Regulations*
- Currently, Management will not permit open sharing of any infrastructure components. They may consider a secure option.



Results: By Request Only

Layers

Electric

- Distribution Line
- Meters
- Stations
- Switches
- Towers/Poles
- Transformer
- Transmission Lines

Gas

- Abandoned Pipeline
- Easement
- Pipeline
- Service Areas
- Valves

Stormwater

- gravity mains
- Oil/water separators
- valves

Telecom

- Access Points
- Fiber line
- Poles
- Riser
- Service Area
- Service Drops
- Splice Point

Water/Sewer

- Water Tanks
- Hydrants
- Manholes
- Sewer Clean Outs
- Sewer Force Mains
- sewer Gravity Mains
- Sewer Meters
- Sewer Network Structures
- Sewer Pipes
- Sewer Pump Stations
- Sewer System Control Valves
- Sewer System Valves
- water intake/well
- Water Network Structures
- Water Pipes
- Water Pump Stations
- Water Sampling Stations
- Water Service Connections
- Water System Control Valves
- Water System Valves
- Water treatment plant locations

Rationale

- Sites risk/HLS/State Regulations
- Management will not permit open sharing of any infrastructure components.
- currently shares this data at an approved per request level.
- *Some data may exist at the state level – collected through a regulatory process or other state level collection



Conclusion

- Most data layers are not currently shared in an "open data" type environment and require some type of "per project" arrangement.
- There is reluctance by many data providers to make infrastructure data openly available due to security and/or liability concerns. (Homeland Security directives, interpretation of current statutes, etc.)
- The landscape is likely to remain the same without monetary investment (data development), changes to statutory interpretation, or changes to the statutes themselves.



Next Steps

- Complete the documentation of use cases from data consumers.
- Use the results of use cases to identify data needs and evaluate prevalence statewide. Data prioritization.
 - Likely to be shared?
 - Does it currently exist?
 - Could it be developed or generalized?
- Develop a broader understanding of local government approaches to data dissemination across the state for infrastructure layers (LGC).
 - Document if preliminary conclusions remain true



Where Do We Go From Here?

- Possible actions:
 - Develop a data sharing template document to provide consistency and satisfy legal risk to data providers.
 - Template Disclaimers
 - Guidance Documents / Recommendations
 - Focus on developing "likely shared" data layers
 - Investigate potential for developing derived/generalized data sets that would be more likely to be shared.



Questions about the Infrastructure Assessment?

