



# Infrastructure Working Group: Preliminary Findings

Tim Johnson

Colleen Kiley

Center for Geographic Information and Analysis

**NCDIT**  NORTH CAROLINA  
DEPARTMENT OF  
INFORMATION  
TECHNOLOGY

# Infrastructure Working Group History

2019

Local Government Committee pursues better understanding of sharing utility data

Legal Review, LGC Survey, and Emergency Response Presentations

Facilitated GICC Public Access to Infrastructure Discussion

2020

TAC Infrastructure Working Group initiated

IWG interviews, investigations and local government surveys

2022

Preliminary Findings

# Infrastructure Working Group Tasks

Document  
Common Layers

Investigate  
Security Issues

Document Use  
Cases

Investigate  
industry  
standards and  
best practices

Data sharing  
agreement  
examples

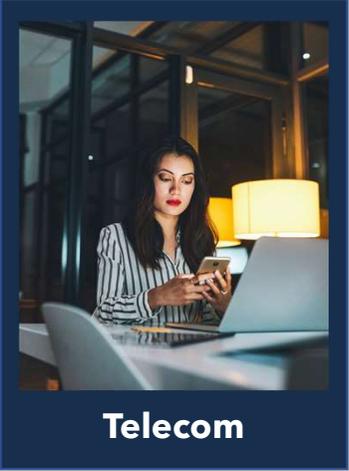
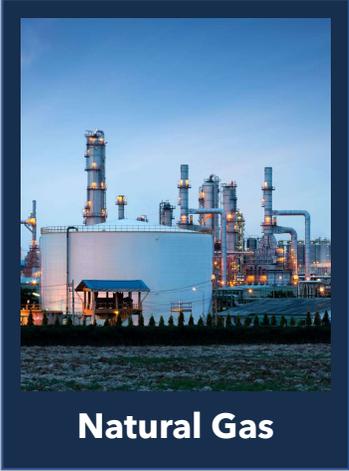
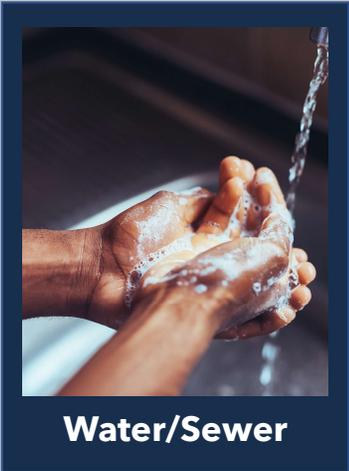
Data sharing  
policy examples

Disclaimer  
examples

Data Sharing  
methods

# Findings

# Infrastructure Categories



## Findings: Communication

**Infrastructure data is a topic that some want to discuss at length, and some would like to never discuss.**



# Use Cases: Infrastructure Data is Critical

## Uses

- ❖ Development\Planning
- ❖ Transportation Planning
- ❖ Emergency Response
- ❖ Education\Remote Working
- ❖ Environmental Protection
- ❖ Municipal Mutual Aid
- ❖ Insurance Rating

## Benefits

- ❖ Risk reduction
  - ❖ Protect infrastructure from construction damage
  - ❖ Faster emergency response
  - ❖ Protect drinking water supplies
- ❖ Cooperation
  - ❖ Broadband expansion
  - ❖ 911 response across boundaries
- ❖ Development Projects
  - ❖ Advantages in project siting
  - ❖ Cost estimation accuracy

# Findings: Risk

**Decisions regarding what data to share, how to share it, and how to communicate with those that need data are individual management decisions based on perceived risk, organizational risk tolerance, and an evaluation of other factors and circumstances that may outweigh risk factors.**



## Findings: ...“And the sky is gray”

Nearly every topic we discussed lived in a gray area.



# Recommendations for Local Data Providers

# Data Provider Recommendations



Write a data sharing agreement.



Write internal data maintenance and sharing procedures.



Write data disclaimers for webservices and metadata.



Evaluate and update geometric accuracy and completeness.



Evaluate and update attribute accuracy and completeness.



Complete metadata.



Develop secure regional data sharing partnerships.

# Recommendations: GICC and State

# Data Provider Recommendations



Revisit this topic periodically.



Engage industry professional and organizations.



Task the metadata committee with creating an infrastructure template.



Monitor funding opportunities that could be used to improve infrastructure mapping.

# Working Group Members

Member	Member Organization
Adam Spry	Duke Energy
Amy L. Barron	Duke Energy
Beth Canada	Orange Water and Sewer Authority
Brooks Tate	N.C. Utilities Commission
Christopher Nida	N.C. League of Municipalities
David Baker	N.C. Association of County Commissioners
Dean Grantham	Department of Environmental Quality
Greg Cox	Bissell Companies, Inc.
Joseph Ausby	City of Wilson
Kristian Forslin	N.C. Railroad Company
Leith Britt	Town of Cary
Marcus Bryant	Durham City/County GIS
Marlena Isley	Alamance County
Matthew Helms	Charlotte Water
Michael Mazanek	Town of Cary
Sallie Vaughn	Person County
Stan Duncan	Private Citizen
Brett Spivey	CGIA
Colleen Kiley	CGIA

**Tim Johnson**  
State Geographic Information Officer  
[Tim.Johnson@nc.gov](mailto:Tim.Johnson@nc.gov)

**Colleen Kiley, GISP, CFM**  
GIS Coordination Program Manager  
[Colleen.Kiley@nc.gov](mailto:Colleen.Kiley@nc.gov)

**Center for Geographic Information and Analysis**

**Connect with us:**

[Facebook](#)

[Twitter](#)

[LinkedIn](#)

