

2023 NCGIS

What to Expect ...

Tim Johnson, State GIO and Conference Chair

NC Geographic Information Systems Conference

March 8th-10th, 2023 - Winston-Salem, NC

Discounted hotel rates end Feb 7th

[VIEW SCHEDULE](#)

[REGISTER NOW](#)

28

Days

:

09

Hours



16

Minutes

:

59


Seconds

Conference Sponsors





Keynote Presentations

- Opening Plenary Session (Wednesday)
 - Bill Johnson – “Carpe Geo – A Field Guide to Enjoying Your Career Journey”
 - Awards Luncheon (Thursday)
 - Joseph Kerski – “5 Forces, 5 Trends, and 5 Skills Pivotal to the GIS Community in the 2020s and Beyond”
- 

Program

Seven concurrent sessions, 127 speakers

Opportunities for participation on panels

Opening Plenary

Thursday Awards Luncheon

“NC Neighbors” session: GA, TN, VA, SC

Town Hall Meeting to close out conference

Exhibitors

- Local and national firms represented
- Tiered levels
 - Platinum
 - Gold
 - Silver
 - Bronze



Poster Session

- Showcase your work!!
- 48 poster slots on first-come, first-served basis
- Led by Carolina URISA Chapter



Herb Stout Student Awards

- 13 students
- 8 campuses represented
- Placement on conference program



National Geospatial Advisory Committee Overview



North Carolina Geographic Information Coordinating Council Meeting
February 8, 2023

National Geospatial Advisory Committee

The duties of the NGAC are described in the Geospatial Data Act:

“The Advisory Committee shall:

- (1) provide advice and recommendations relating to –
 - (A) the management of Federal and national geospatial programs;
 - (B) the development of the National Spatial Data Infrastructure; and
 - (C) implementation of the Geospatial Data Act;
- (2) review and comment on geospatial policy and management issues; and
- (3) ensure the views of representatives of non-Federal interested parties involved in national geospatial activities are conveyed to the Federal Geographic Data Committee (FGDC).”



NGAC Overview

- Established administratively in 2008, statutorily authorized in 2018 through the Geospatial Data Act GDA.
- Operates under requirements of the Federal Advisory Committee Act (FACA)
- Balanced membership:
 - Non-governmental organizations (private sector, non-profits, academia)
 - Governmental organizations (Federal, Tribal, state, local, regional)
- Sponsored by Interior Department – administrative support provided by FGDC Secretariat (housed in US Geological Survey)
- Reports to FGDC Chair (Secretary of the Interior)



NGAC Membership – February 2023

Mr. Gary Thompson (Chair)

State of North Carolina

Ms. Roberta Lenczowski (Vice Chair)

Roberta E. Lenczowski Consulting, LLC

Dr. Nadine Alameh

Open Geospatial Consortium

Dr. Clio Andris

Georgia Institute of Technology

Mr. Frank Avila

National Geospatial-Intelligence Agency

Mr. Chad Baker

California Department of Transportation

Mr. Byron Bluehorse

University of Alaska Fairbanks

Ms. Maggie Cawley

OpenStreetMap U.S.

Mr. Gareth Couch

National Tribal GIS Center

Mr. Jack Dangermond

Esri

Ms. Lynn Dupont

New Orleans Regional Planning Commission

Dr. William Haneberg

Kentucky Geological Survey

Mr. Tony LaVoi

NOAA

Mr. Mark Meade

NV5 Geospatial

Dr. Siva Ravada

Oracle Corporation

Dr. Vasit Sagan

St. Louis University

Mr. Cy Smith

State of Oregon

Dr. Kathleen Stewart

University of Maryland

Mr. Tim Trainor

Trainor Consultants



NGAC Papers & Products - Examples

Papers on Emerging Issues

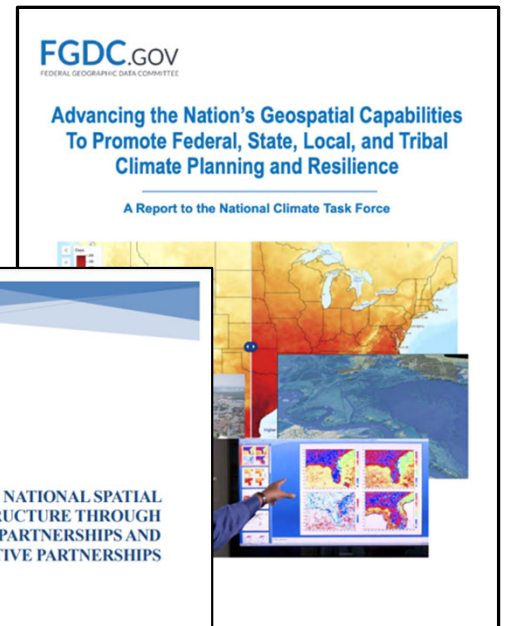
- Landsat in the Cloud Era
- Public-Private Partnerships to Advance the NSDI

Advice on Federal Programs

- Landsat Data Cost Sharing
- 3D Elevation Program

Input on Key Initiatives

- NSDI Strategic Plan
- GDA Reporting
- Climate Mapping/Executive Order 14008



NGAC Spotlight Sessions

Panel discussions highlighting key geospatial policy issues and exploring possible roles for FGDC/NGAC

Past Spotlight Sessions:

- Data Sharing
- Parcel Data
- Workforce Development
- Geospatial Privacy
- Crowdsourced Data
- Emerging Technologies



NGAC – Recent Activities

- **Climate Mapping:** NGAC held 4 in-depth sessions providing [input](#) to the FGDC climate mapping initiative under Executive Order 14008. Passed [resolution](#) on FGDC Climate Mapping Report and [resolution](#) on development of Climate Resilience Information System.
- **Geospatial Data Act:** NGAC provided comments on FGDC GDA annual report in [2020](#) and [2021](#). NGAC also developing recommendations to be incorporated into 2023 GDA Report to Congress
- **Landsat:** NGAC Landsat Advisory Group developed recent papers on [Landsat in the Cloud](#) and the [Waters Edge of NLI Program Scope](#)
- **3DEP:** FGDC and NGAC established new 3DEP subcommittee to fulfill requirements in National Landslide Preparedness Act

Current NGAC Subcommittees

| Subcommittee | Chair/Vice Chair | Activities |
|--|-----------------------------------|---|
| Landsat Advisory Group Subcommittee | Frank Avila / Bobbi Lenczowski | <ul style="list-style-type: none"> 2023 task: Develop recommendations on what the National Land Imaging Program should offer to users in the 2030 timeframe (content, format, delivery approach, Level of processing, predictive and/or analytical support, ...) |
| 3DEP Subcommittee | Gary Thompson / Gale Blackmer | <ul style="list-style-type: none"> Per requirements of National Landslide Prepared Act, provide report on GDA implementation within one year of establishment of Subcommittee (by July 2023) Established two work groups (Trends & Developments, and Program Management) to develop components of the report. |

Current NGAC Subcommittees

| Subcommittee | Chair/Vice Chair | Activities |
|-------------------------------------|-----------------------------|--|
| GDA Reporting Subcommittee | Mark Meade / Chad Baker | <ul style="list-style-type: none"> • Coordinate NGAC’s role in the GDA reporting process; develop comments on FY 22 GDA annual report • Review and provide comments on Covered Agency & Lead Covered Agency reports |
| Review of GDA Implementation | Cy Smith / Maggie Cawley | <ul style="list-style-type: none"> • Develop brief summary paper with recommendations that can be incorporated into FGDC’s upcoming GDA Report to Congress • Review FGDC’s implementation of the GDA and identify successes, areas needing improvement, and recommendations for the future |

Current NGAC Subcommittees

| Subcommittee | Chair/Vice Chair | Activities |
|---|------------------------------|--|
| Geospatial Excellence & Innovation | Vasit Sagan / Siva Ravada | <ul style="list-style-type: none">• Assess and identify approaches and opportunities for the U.S. geospatial community to enhance key geospatial capabilities and initiatives.• Sessions on Geodesy, Datum Modernization, and Integrated Geospatial Information Framework (IGIF) at recent NGAC meetings.• Session on AI/ML at April NGAC meeting.• Developing interim report on U.S. geospatial competitiveness in 2023. |

NGAC – Upcoming Activities

NGAC Public Meetings: April 11-12, June 27-28

- Information and registration instructions available at www.fgdc.gov/ngac

NGAC appointments

- New members appointed on an annual basis
- Next set of new appointees - April 2023

New NGAC Study Topics for 2023

- Ideas/suggestions on study topics?

Contact Information

Gary Thompson, NGAC Chair

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Roberta Lenczowski, NGAC Vice Chair

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John Mahoney (FGDC), NGAC Project Manager

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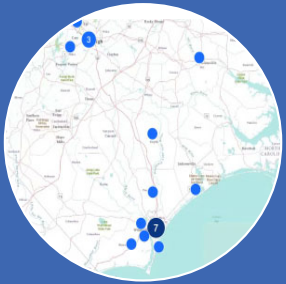
www.fgdc.gov/ngac



NC GICC Outreach Update-

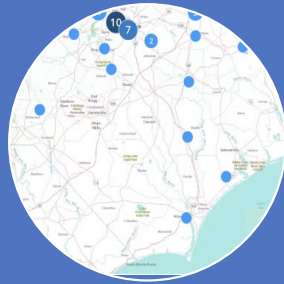
February 8, 2023

Attendance for outreach meetings



Wilmington

- Registered 30
- Attended 20



Raleigh

- Registered 61
- Attended 42



Greenville

- Registered 30
- Attended 19



Asheville

- Registered 62
- Attended 27



Kernersville

- Registered 61
- Attended 21



| Row Labels | Count of Date |
|-------------|---------------|
| City | 29 |
| COG | 3 |
| Company | 12 |
| County | 40 |
| Federal | 3 |
| MPO | 2 |
| NGO | 1 |
| State | 13 |
| Tribal | 1 |
| University | 5 |
| Grand Total | 109 |

Participation- 109

Representatives from

- 23 different Cities/towns
- 27 Counties
- 2 Federal Agencies
- 3 Universities
- 8 State Agencies
- 8 Companies
- 2 MPO's
- 1 Tribal
- 1 NGO

Familiarity with the Council

| | |
|--|------------|
| Total Responses | 120 |
| Main Council | 87 |
| SMAC- State Mapping Advisory Committee | 59 |
| SGUC- State GIS Users Committee | 46 |
| TAC- Technical Advisory Committee | 44 |
| LGC- Local Government Committee | 81 |
| FIC- Federal Interagency Committee | 36 |

How does geospatial coordination at the state level impact your organization?

data sharing initiatives
resulting in cost savings

Nice to know state initiatives
So that we can plan on local
levels

Ensuring there is no
duplication

We utilize a number of
statewide datasets and
coordinate across multiple
organizations to keep our info
up to date

Data (LiDAR, hydro)
contributions to The National
Map

the event I'm attending today
and the others you are
regularly holding are meeting
the one improvement area
that I might have otherwise
suggested and that is outreach

Big portion of annexation data
works because of geospatial
coordination

advocate for dedicated
funding to support data
collection, management and
distribution.

Serves as a central repository
for GIS data, methodologies,
and knowledge that is useful
across agencies

Standards and reliable data

Empowers our clients in the
state

What do you think could be improved by (or about) the GICC?

- More Zoom/Teams/WebEx meeting options, or at least not always meetings in Raleigh
- Outreach (several times)
- Education to local town officials on where to find data
- Meetings around the state and virtual coffee chats similar to the AMPO Organization.
- User friendly access
- Help local governments and understand their roles and the general standards of GIS data.
- More clarity on what data is available and how often it is updated

What Organizations would you like to hear from?

- State Agencies
- Diversity and Equity
- NC Association of Municipal Clerks
- Duke and Dominion
- APA Planning Association
- NCDOT
- NCAAO
- NCPMA
- municipalities
- Demographers
- cell towers
- MPOs



Other Topics of interest?

Utilities

- ROW
- Encroachment
- Easements

Stormwater

Transportation

- ROW
- Encroachment
- Easements

Gap Analysis

Equity

ESRI Apps

Drones

- Flights paths

Field work

Indoor modeling

Data sharing

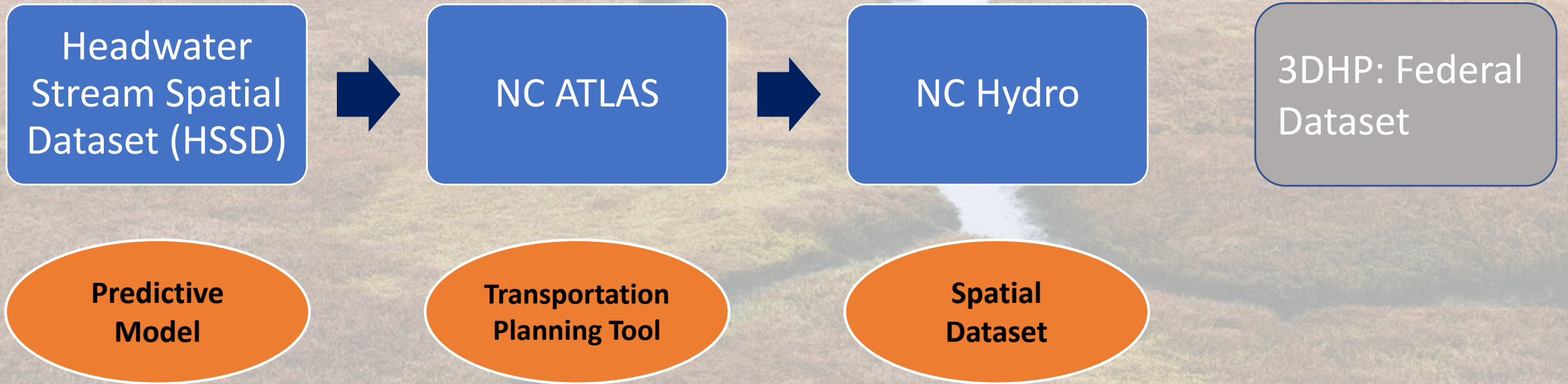
- Open data portals



Hydrography Working Group Update

John Derry
GIS Analyst
NC Center for Geographic Information and Analysis

The Path to NC Hydro

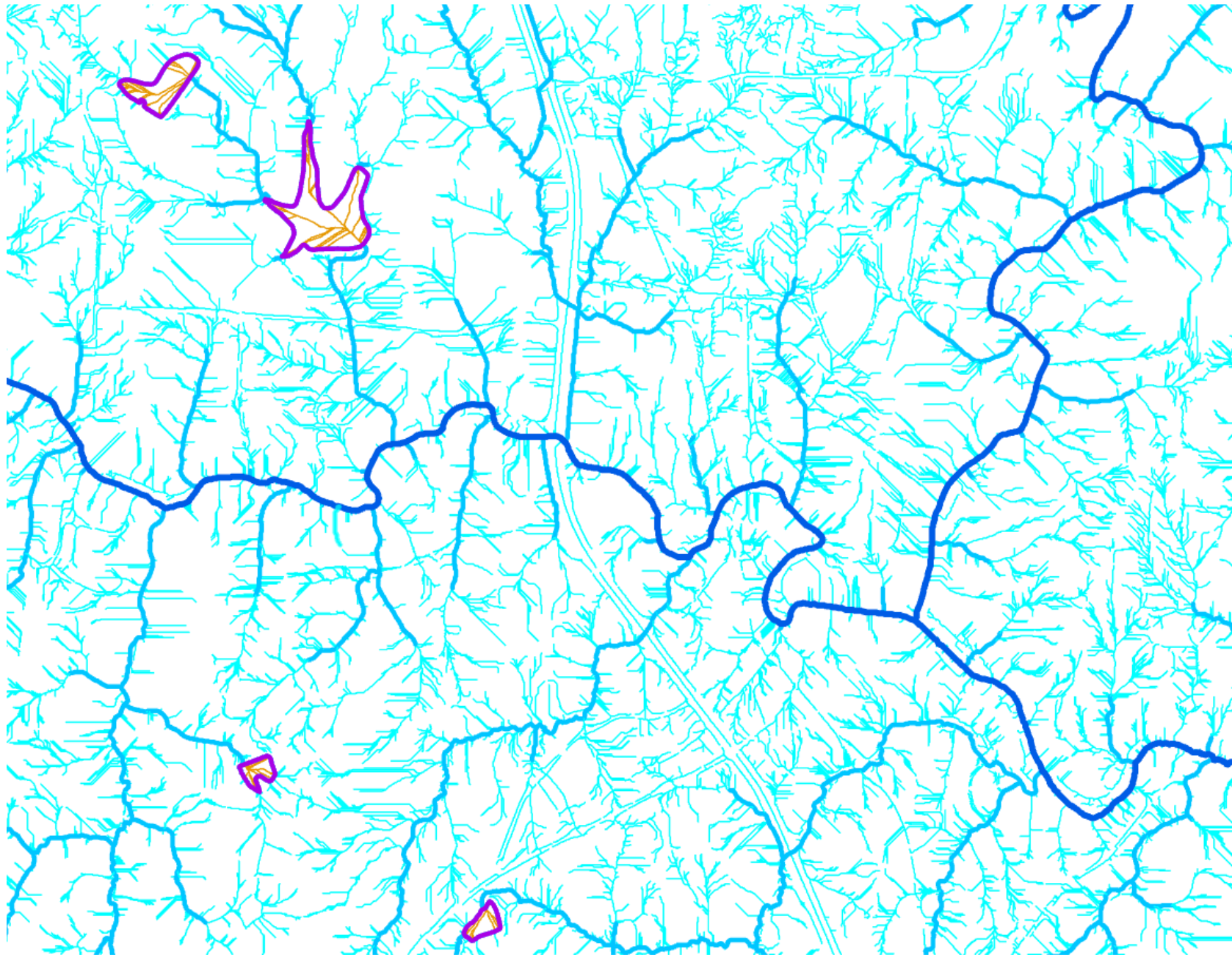


Existing Hydro Dataset (NHD) HSSD: A More Accurate Dataset





HSSD to ATLAS



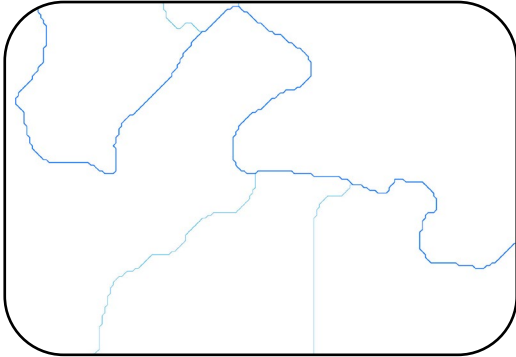


**If ATLAS is
complete, why
don't we have
NC Hydro yet?**

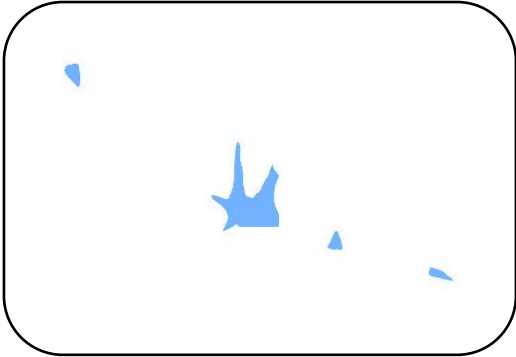




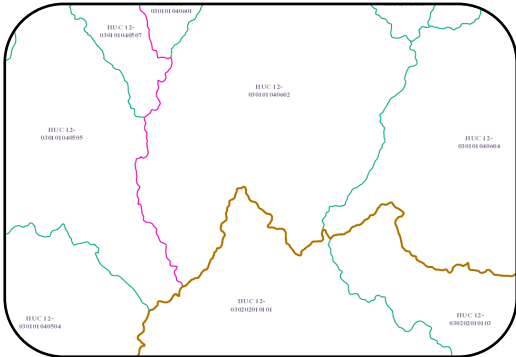
ATLAS to NC Hydro



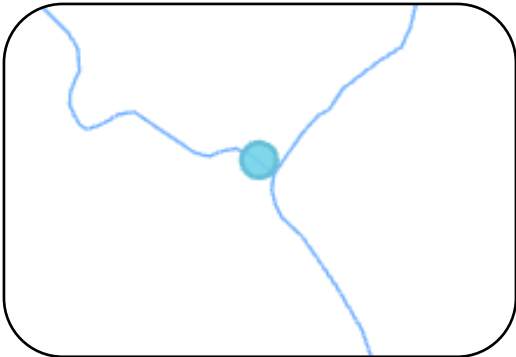
Hydro Lines



Waterbodies



Boundaries



Hydro Points

| | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |
| | | | |

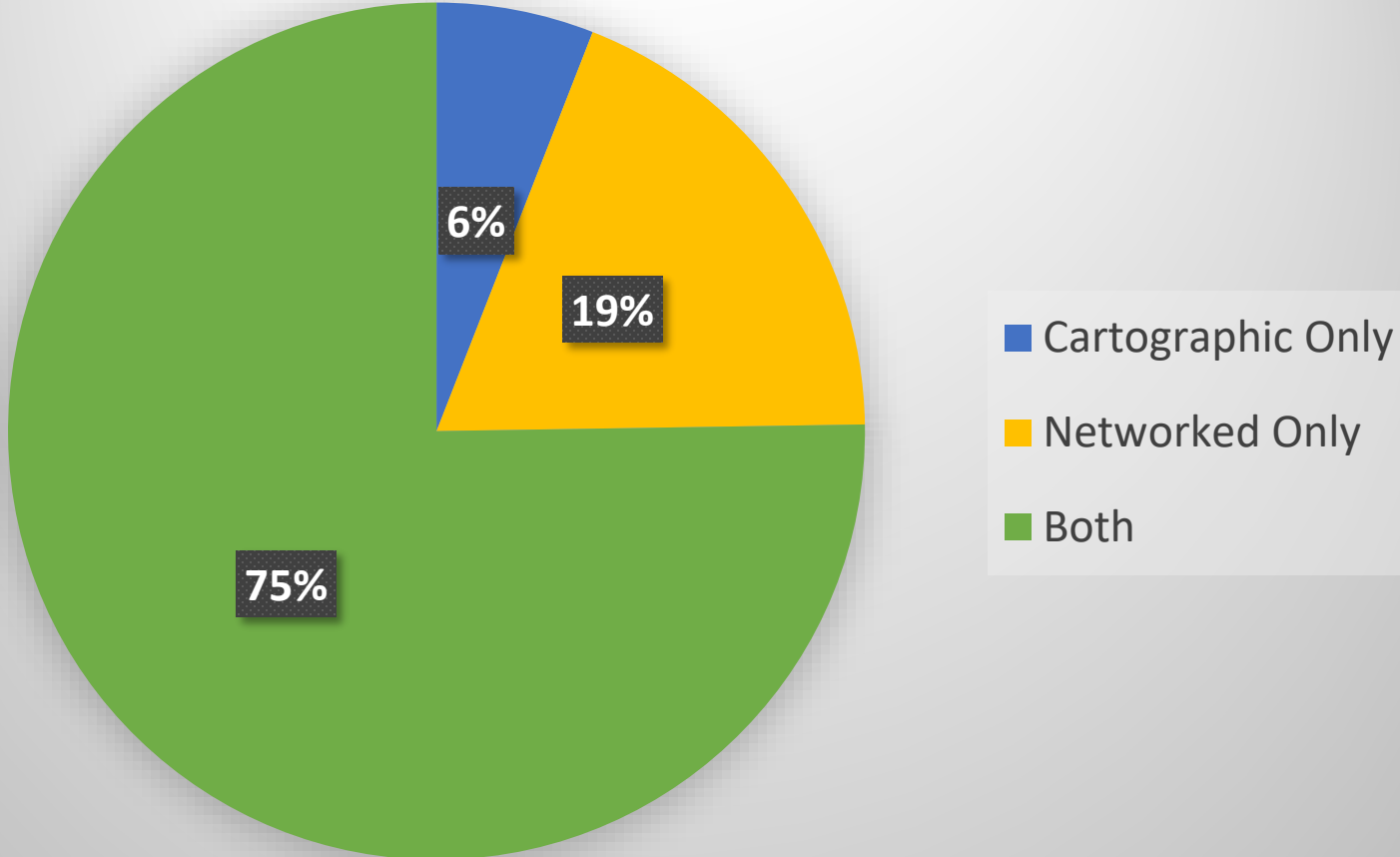
Attributes:
State Tables





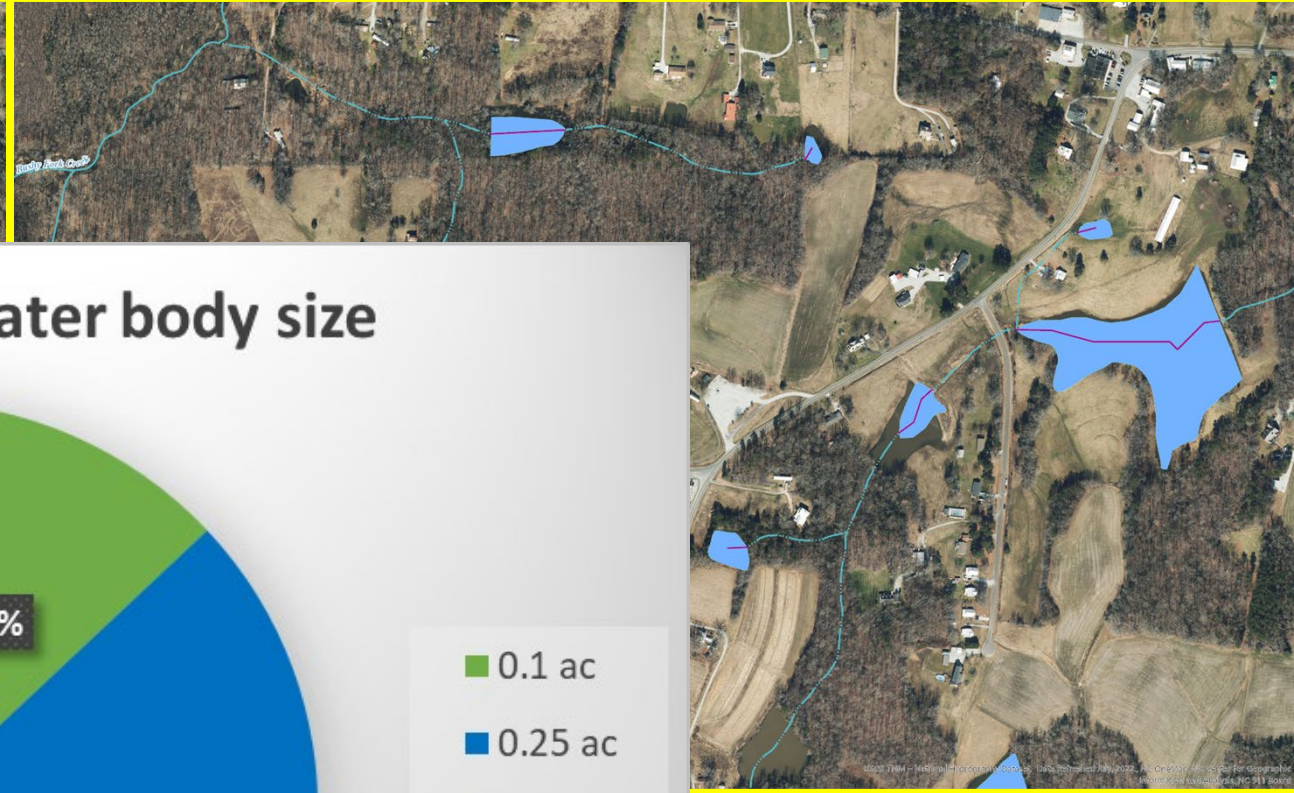
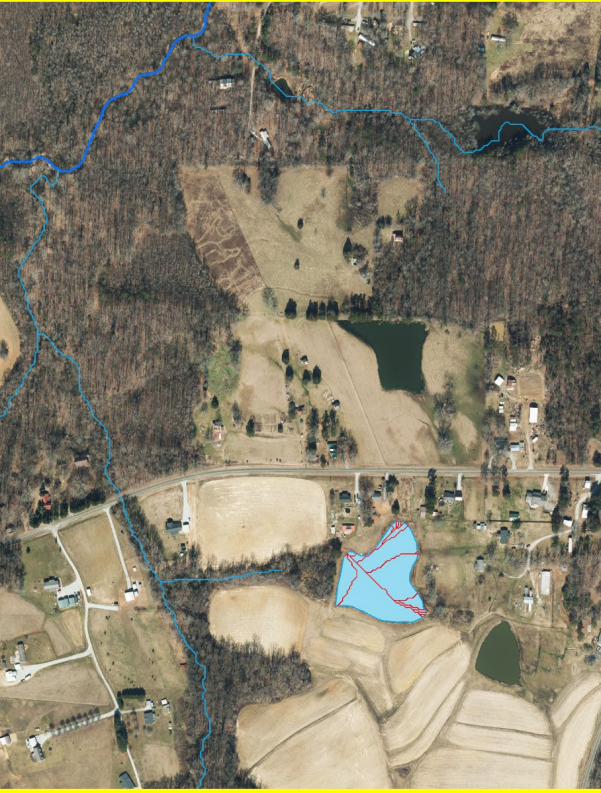
Gap: Networked or Cartographic?

What kind of hydro dataset do you need?

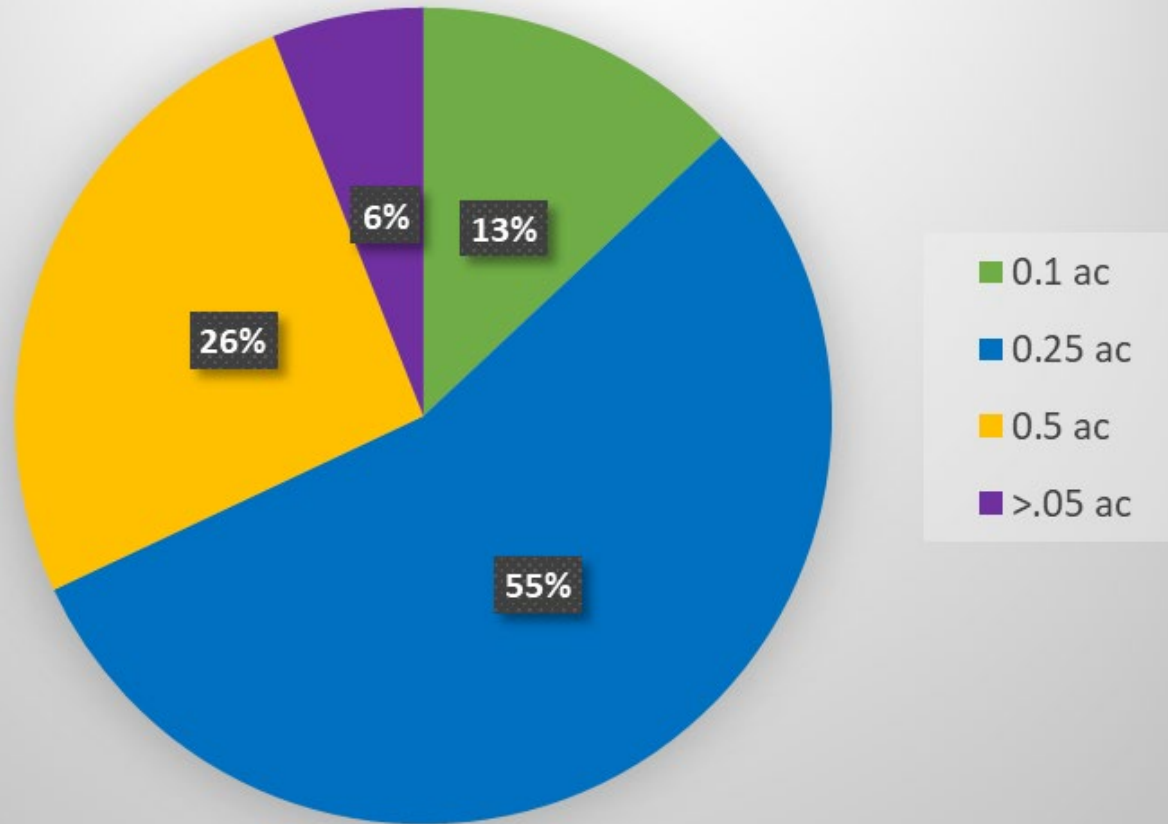


USGS TNM - National Hydrography Dataset. Data Refreshed July, 2022.

Gap: Waterbody Size?



Minimum water body size



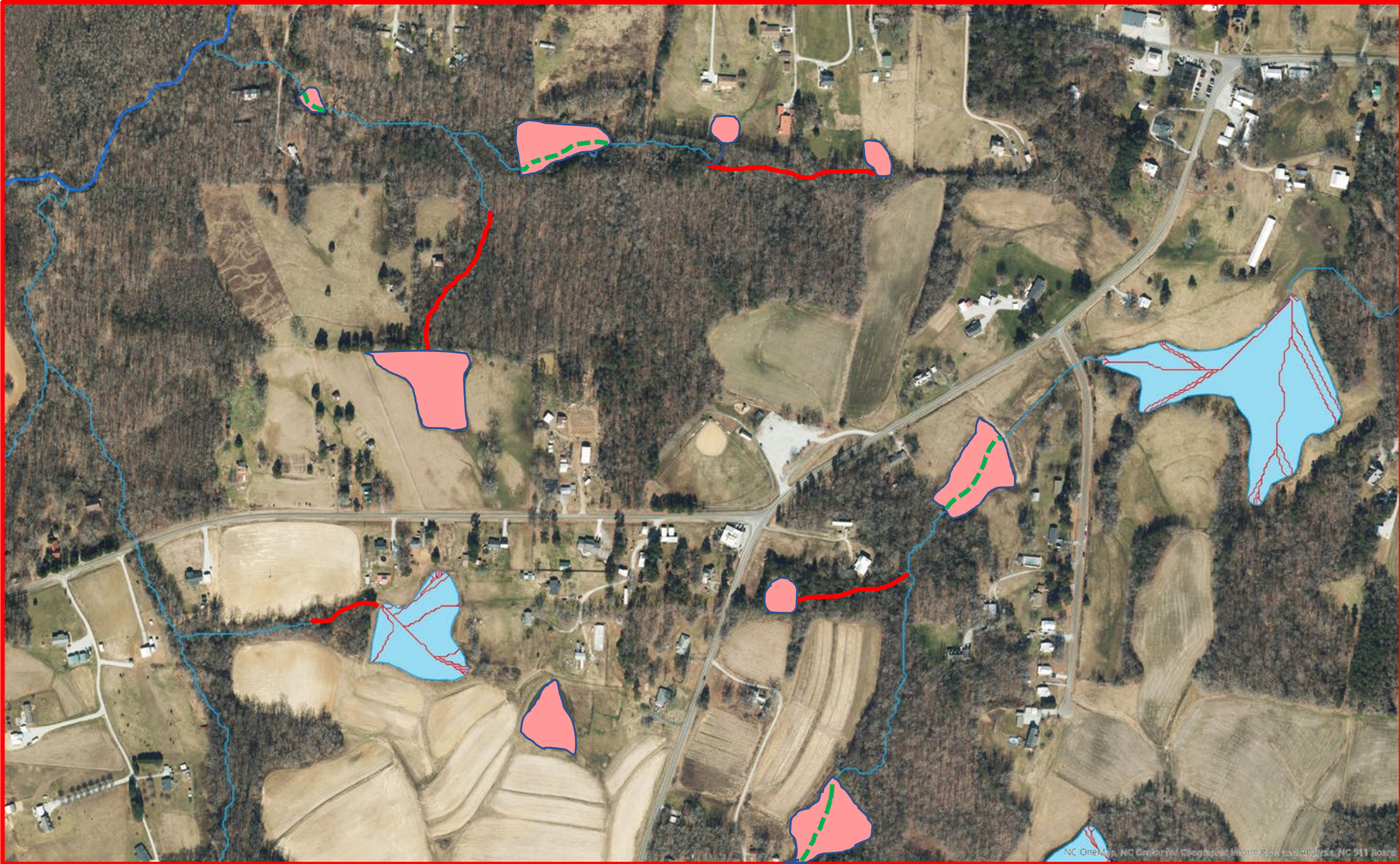
What are we working on now?

| Specification | HSSD | ATLAS | Expected NC Hydro Need | Federal: 3DHP |
|----------------------------|--------------|---------------|-----------------------------|-------------------|
| DEM base | 10ft | 10ft | 10ft | 1m |
| coarse line representation | yes | yes | no | no |
| z enabled linework | no | no | no | yes |
| z enabled points | no | no | ? | yes |
| cartographic | no | no | yes | yes |
| networked | Yes-DB only | Yes-DB only | yes | yes |
| artificial paths | yes/multiple | yes/multiple* | yes/single | yes/single |
| 2D waterbodies | no | >2ac as lines | > 0.25ac as polys | > 0.25ac as polys |
| waterbody attributes | no | no | yes | yes |
| Minimum feature size | 10-14ft* | 10-14ft* | ? | 1.5m |
| Drainage way connections | yes | yes* | yes | yes |



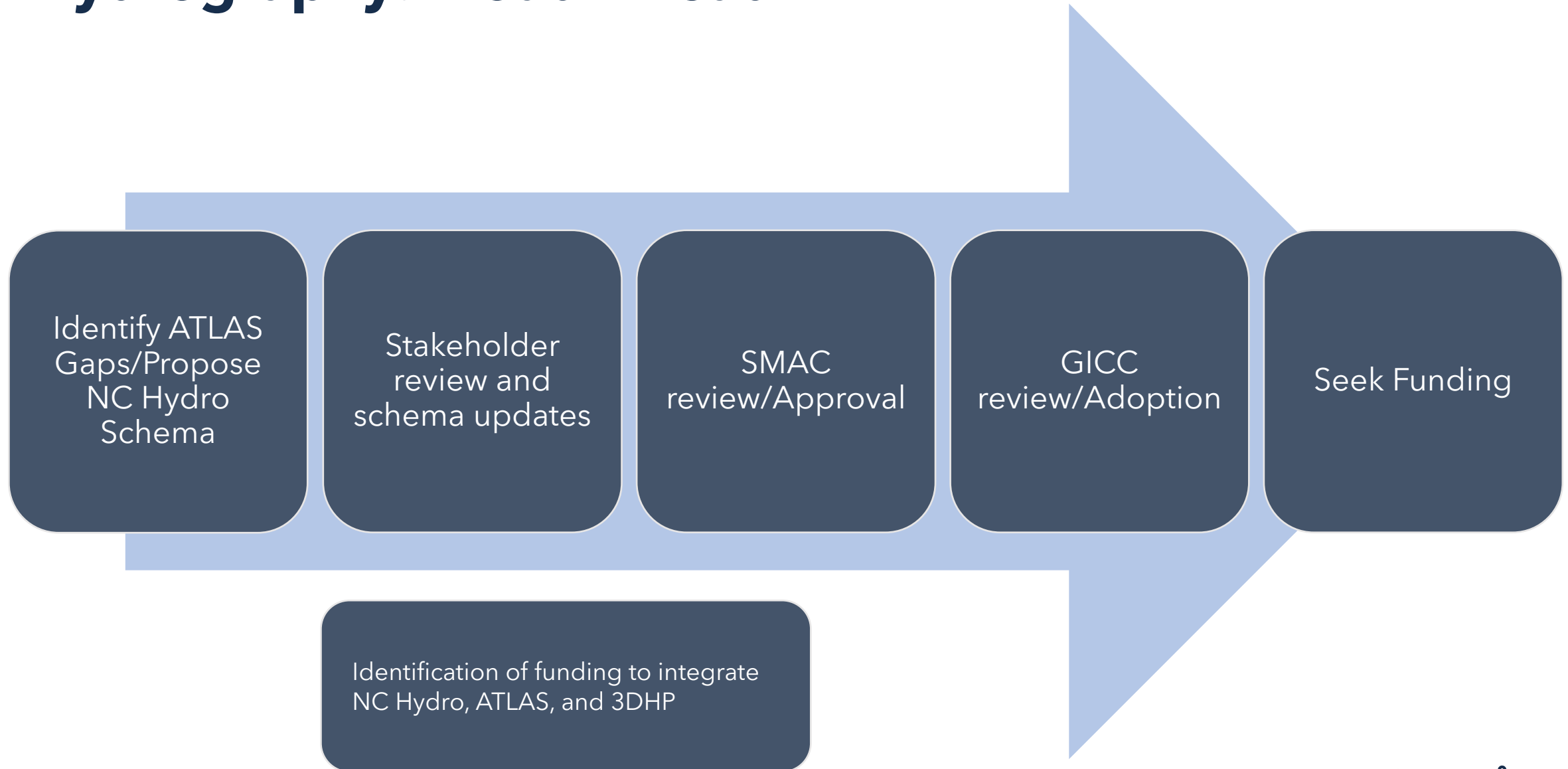
Gaps - A Heavy Lift

Missing Waterbodies



NC OneMap, NC Center for Geographic Information and Analysis, NC 911 Board

Hydrography: Road Ahead



Questions?



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CGIA Support: Colleen Kiley (colleen.Kiley@nc.gov)

John Derry (John.Derry@nc.gov)