

Address NC: Project Status

Statewide Mapping Advisory Committee
September 10, 2026

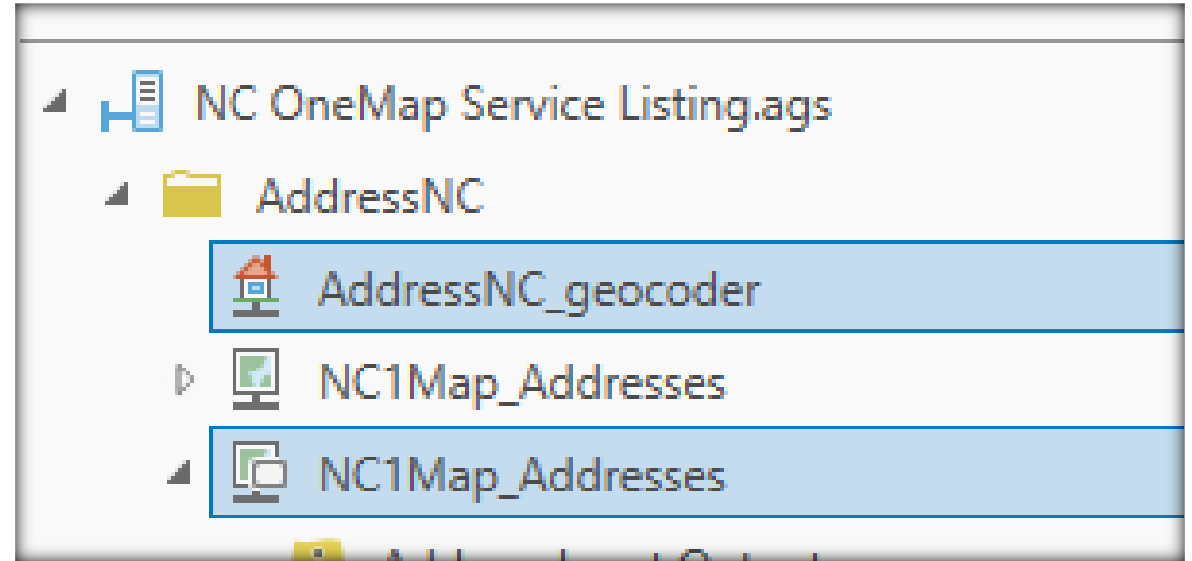


Darrin Smith, Project Manager - CGIA



Program Updates

- NC OneMap current as of 06/30/2026
- The latest update scheduled to post the week of September 14

A screenshot of the 'Direct Data Downloads' interface. At the top, there is a cloud icon with a downward arrow. Below it, the title 'Direct Data Downloads' is centered. Underneath the title, a line of text reads: 'Immediate access to some of NC OneMap's more popular data sets, pre-packaged and ready to go.' At the bottom, there are three dropdown menus: 'Select NC OneMap Data' with 'Addresses' selected, 'Select Area' with 'All Counties' selected, and 'Select Version' with '06/30/2026 (958.1MB)' selected. To the right of these dropdowns is a blue button labeled 'Get Data'.

Program Updates

ITEM	CHANGE
SINCE THE JUNE 2026 UPDATE	71,101* OR 1.15%
IN ONE YEAR	185,315 OR 3%
ONE YEAR CHANGE	34,662 Average Per Month
COUNTY SUBMITTED (LAST SMAC)	74%

*A single county experienced a data issue with the most recent submittal and therefore that county's June count carried over.

Accomplishments

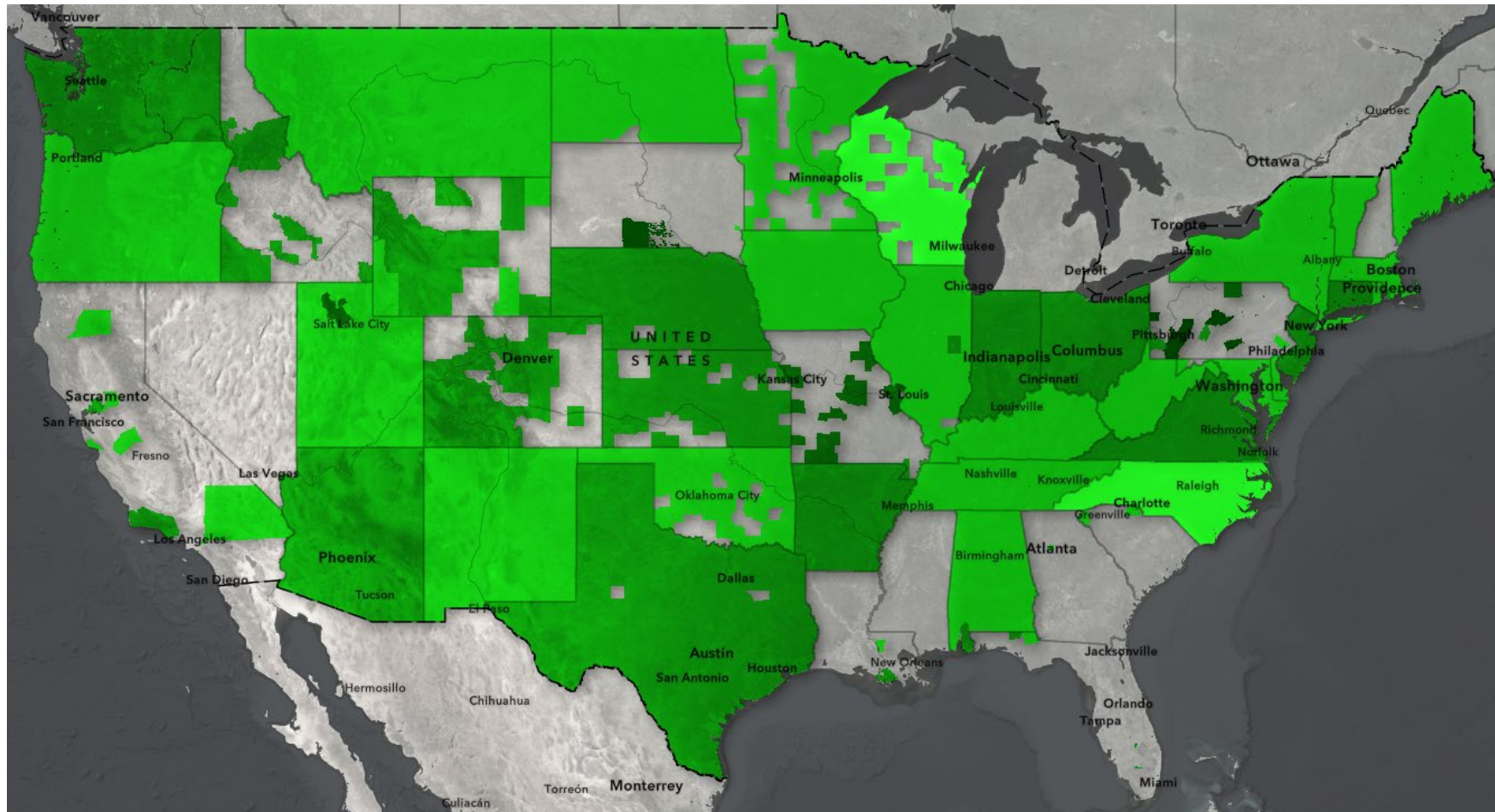
- Esri Community Maps Program September Update
- This summer the State and three NC counties and the EBCI partnered with the US Census as part of a testing program for the upcoming 2030 Local Update of Census Addresses (LUCA).
- As part of a focus on sub-addressing issues this summer, CGIA assisted one county to recognize SQL errors that resulted in an additional 48K points realized.

Accomplishments

**National Address Dataset
(NAD) Release 23**

**NC and WI the only states
where age less than 6
months**

**USDOT quality report a score
of 99.4% where only 36,173
records flagged for review!**



Darrin Smith

NC Center for Geographic Information and Analysis

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<https://it.nc.gov/about/boards-commissions/gicc>

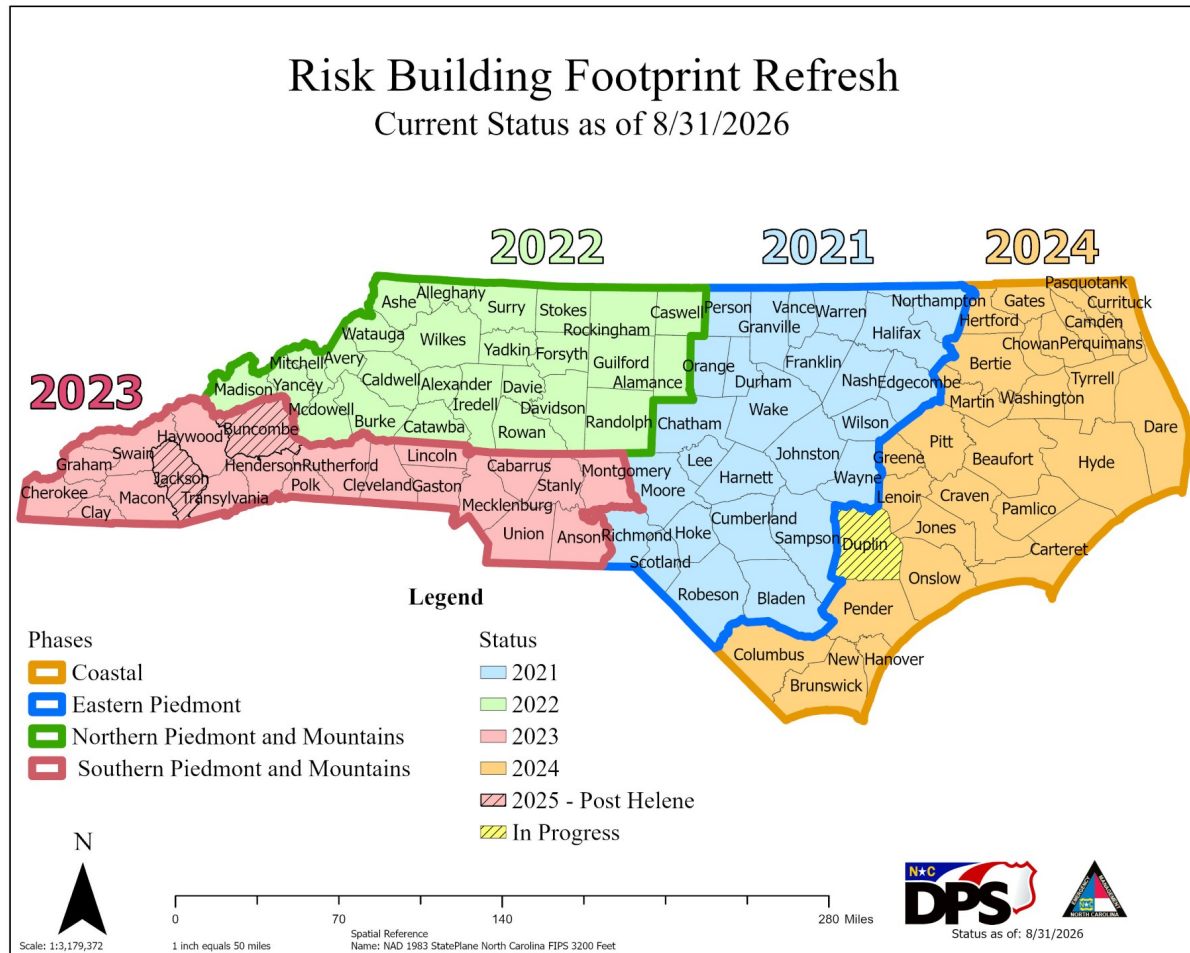
[facebook.com/NCDIT](https://www.facebook.com/NCDIT)

twitter.com/NCDIT

[linkedin.com/company/ncdit](https://www.linkedin.com/company/ncdit)



Building Footprint Update Status



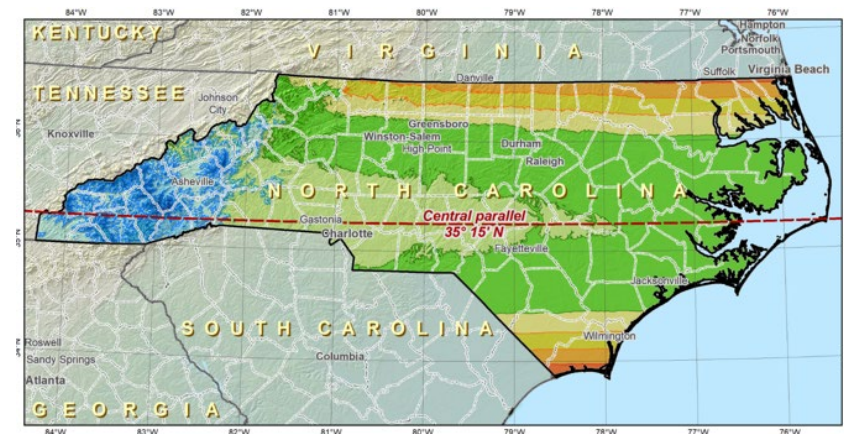


- Monthly meetings (next meeting is 9/24/2026 1-3 pm)
 - **Update provided by National Geodetic Survey**
 - Beta products available in September 2026
 - Adoption of new datums in Mid 2027
 - Includes the private sector, and state, local and federal agencies
 - Developed a guidance document for local governments to use to prepare for the datum change in early 2027
 - NCDOT Photogrammetry developed a new 2022 datum tile layout for statewide imagery and lidar projects.
 - **Developed:**
 - Survey123 questionnaire
 - Agency/company checklist



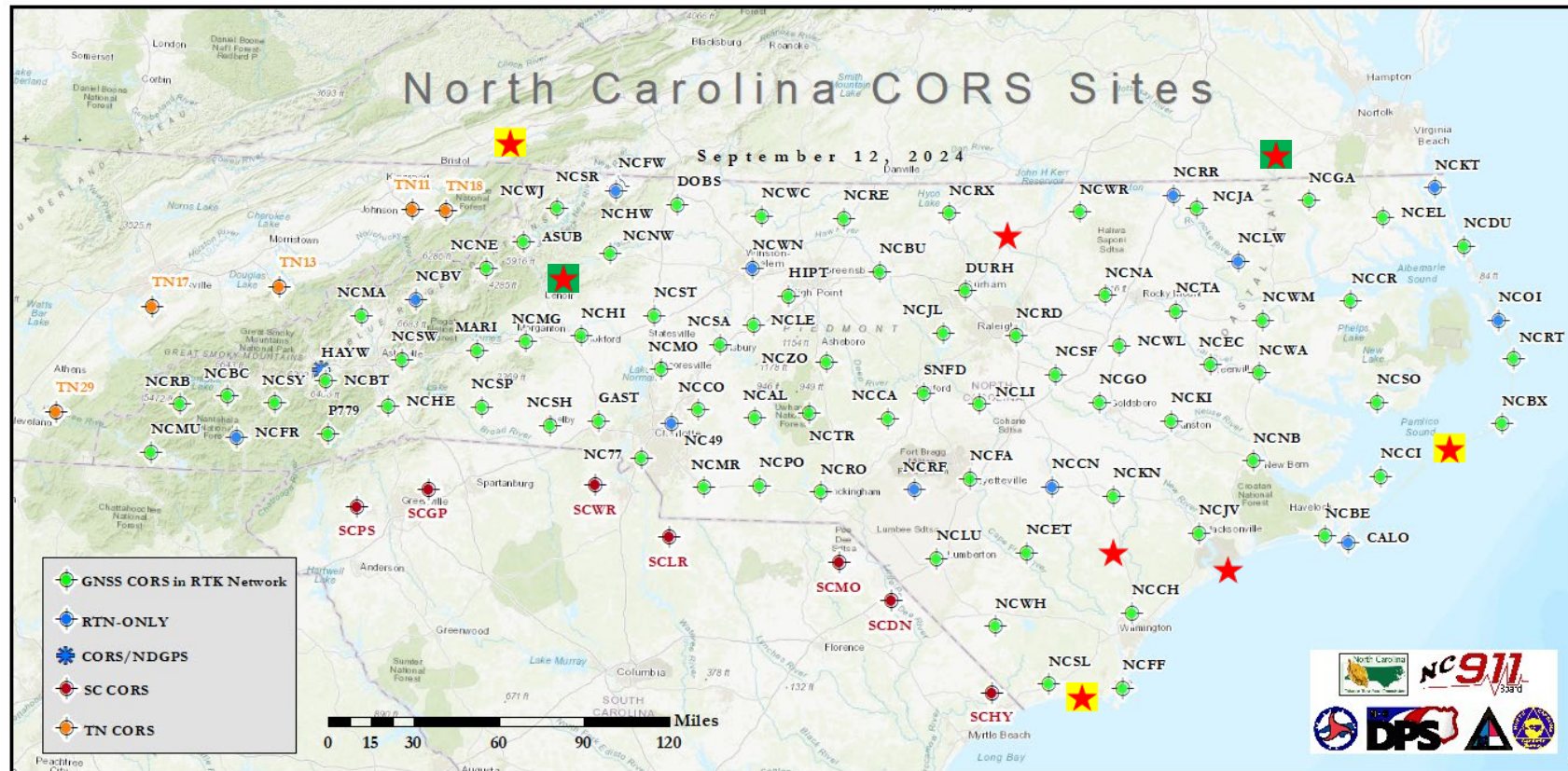
Changes in mid 2027

- New horizontal and vertical datums
 - North American Terrestrial Reference Frame (NATRF2022)
 - North American-Pacific Geopotential Datum of 2022 (NAPGD2022)
- New state plane coordinate system
 - North Carolina and Tennessee Coordinate System of 2022
- New units
 - International foot
- New Geoid model
 - GEOID2022
- New tidal datum (2029)





North Carolina (NC) Continuously Operating Reference Stations (CORS) Network 2025





Rule on Foot Conversion Standards



NOTICE OF TEXT

[Authority G.S. 150B-21.2(c)]

OAH USE ONLY

VOLUME: 40

ISSUE: 08

CHECK APPROPRIATE BOX:

☐

Notice with a scheduled hearing

☒

Notice without a scheduled hearing

☐

Republication of text. Complete the following cite for the volume and issue of previous publication, as well as blocks 1 - 4 and 7 - 14. If a hearing is scheduled, complete block 5.

☐

Previous publication of text was published in Volume: Issue:

1. Rule-Making Agency: Department of Public Safety

2. Link to agency website pursuant to G.S. 150B-19.1(c): www.ncdps.gov

3. Proposed Action -- Check the appropriate box(es) and list rule citation(s) beside proposed action:

☒ ADOPTION: 14B NCAC 03 .0601-.0602

☐ AMENDMENT:

☐ REPEAL:

☐ READOPTION with substantive changes:

☐ READOPTION without substantive changes:

☐ REPEAL through READOPTION:

4. Proposed effective date: 02/01/2026

5. Is a public hearing planned? No

If yes:

Date

Time

Location

7. Explain Reason For Proposed Rule(s):

The purpose of the proposed rules is to clarify the appropriate usage of the U.S. Survey Foot and International Foot. This change is in accordance with the decision by the National Institute of Standards and Technology (NIST) and the National Geodetic Survey (NGS) to phase out the U.S. Survey Foot. It also aligns with recent amendments to North Carolina General Statute 102-1.2, which adopted the International Foot as the state standard. The clarification provided by the proposed rules should reduce confusion arising from having multiple measurement standards, helping to prevent costly errors and improve consistency in project execution.



 Emergency Management
NC DEPARTMENT OF PUBLIC SAFETY

United States Survey Foot/International Foot Rule

14B NCAC 03 .0602 REQUIRED FOOT CONVERSION

When State Plane Coordinates and heights (elevation) are provided in feet, the conversion between the foot and meter shall be based on the coordinate system used for determining the coordinates or height. This requirement applies to horizontal plane and vertical coordinates, and to all values associated with or derived from these coordinates. That includes, but is not limited to, distance, elevation, height, area, and volume, along with values computed from the foot, such as the chain, pole, rod, mile, square mile, and acre. The following foot conversion shall be used:

(1) The International Foot, 1 foot = 0.3048 meter exactly, when coordinates are based on the North American Terrestrial Reference Frame of 2022 (NATRF2022) as described in G.S. 102-1.2, and for all subsequent coordinate systems adopted by the North Carolina Geodetic Survey or its successor.

(2) The International Foot, 1 foot = 0.3048 meter exactly, when heights are based on the North American-Pacific Geopotential Datum of 2022 (NAPGD2022), and for all subsequent coordinate systems adopted by the North Carolina Geodetic Survey or its successor.

(3) The U.S. Survey Foot, 1 foot = 1200/3937 meter exactly or 1 foot = 0.304800609601219 meter approximately, when coordinates are based on the North American Datum of 1983 (NAD 83) or the North American Datum of 1927 (NAD 27) as described in G.S. 102-1.1 or 102-1.

(4) The U.S. Survey Foot, 1 foot = 1200/3937 meter exactly or 1 foot = 0.304800609601219 meter approximately, when heights are based on the North American Vertical Datum of 1988 (NAVD 88) or the National Geodetic Vertical Datum of 1929 (NGVD29).

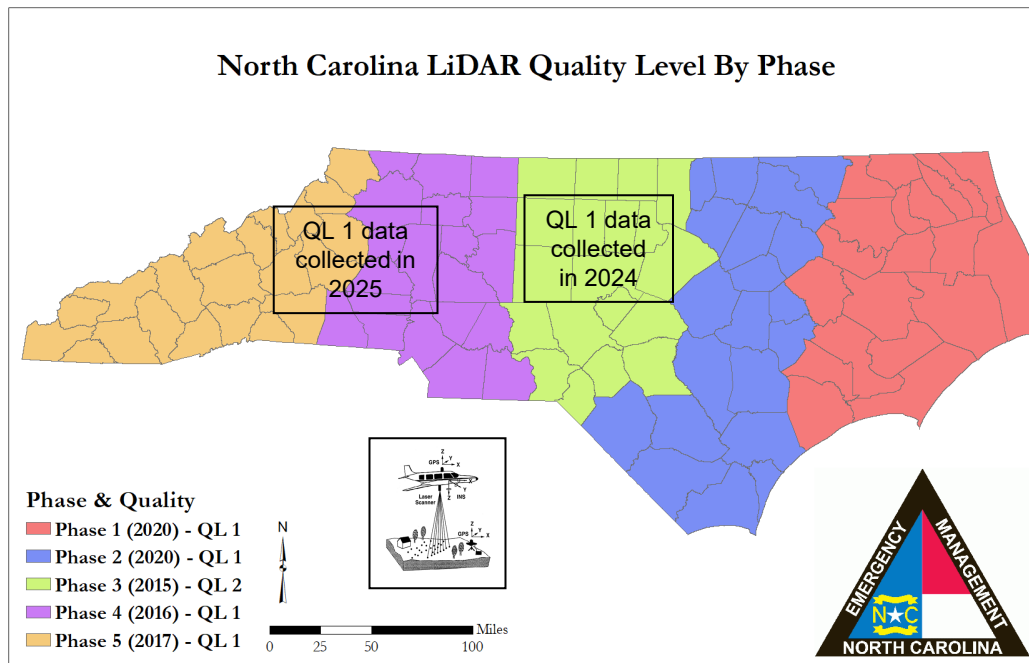
History Note:

Authority: G.S. 102-1; 101-1.1; 102-1.2; 102-1.3; 102-2; 102-8; 102-9;
Eff. February 1, 2026.





NC Light Detection and Ranging (LiDAR) Elevation Data

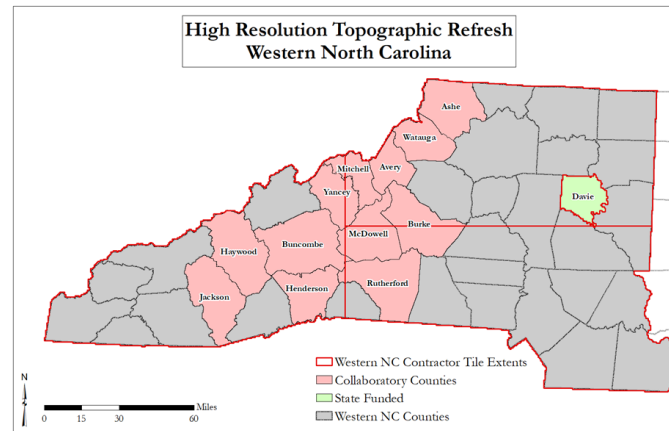


The Phase 3
lidar data is available
on Spatial Data
Download

QL = Quality
Level



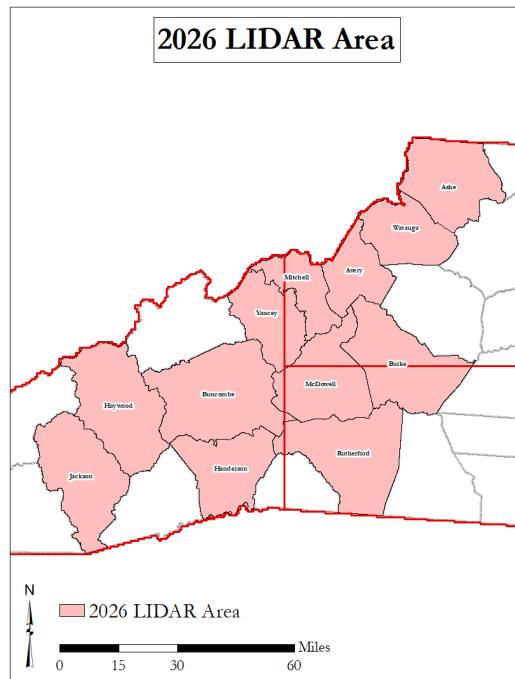
2025 Data Collection Area



- Data currently available on Spatial Data Download
 - LiDAR (All Collaboratory counties)
 - LiDAR for the remaining western NC counties will be available on SDD in October 2026



2026 Data Collection Area

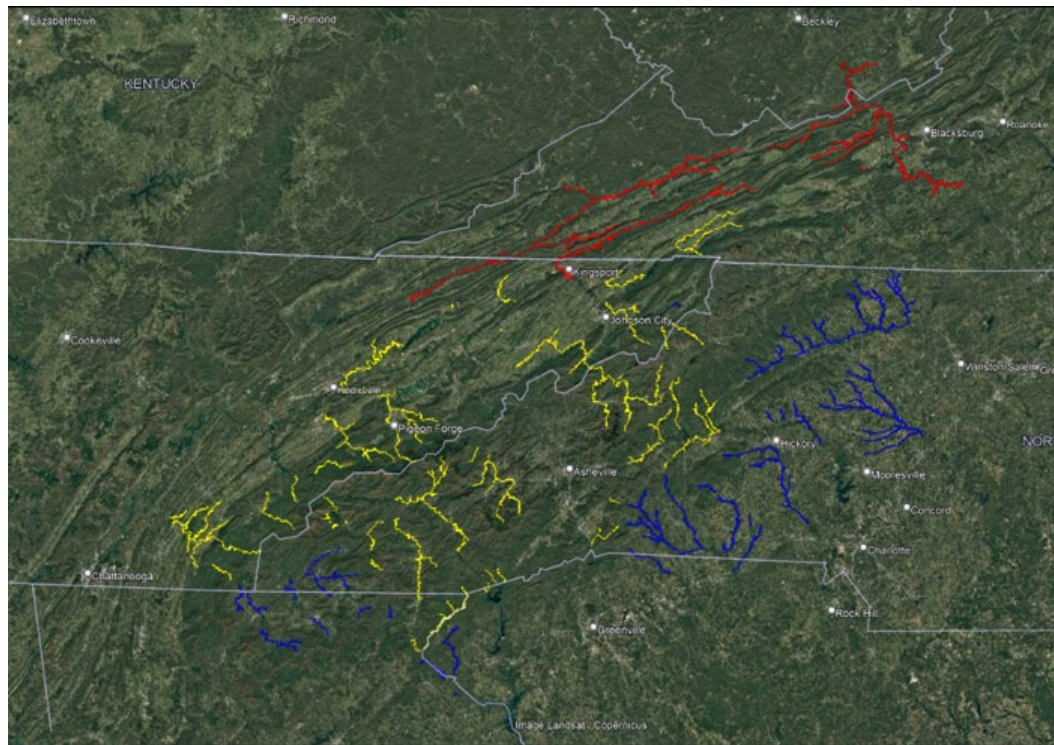


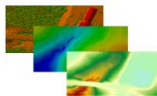
Data available March
2027



Emergency Management
NC DEPARTMENT OF PUBLIC SAFETY

National Geodetic Survey 2026 Bathymetric Lidar Project





Elevation Data

LIDAR points/data in LAS format ([login required](#))
Digital Elevation Models by tiles ([login required](#))
DEM Mosaics by County [3](#), [125](#), [5](#), [10](#), [20](#), [50](#) foot cell size



Building Footprints

[2010 Statewide Building Footprint Polygons by county](#)
[2020-2022 Statewide Building Footprint Polygons by county](#)



Flood Hazards

[Download Floodplain Mapping Program's GIS data by County](#)

[Learn more about North Carolina's Lidar program and available datasets](#)
[NCEM's publicly available REST and Map services and other GIS data sources](#)

NC Emergency Management GIS Section
1636 Gold Star Drive, Office 0624
Raleigh, NC 27607
Email: rmclipandship@ncdps.gov

USPS Mailing Address
NC Emergency Management GIS Section
4236 Mail Service Center
Raleigh, NC 27699-4236

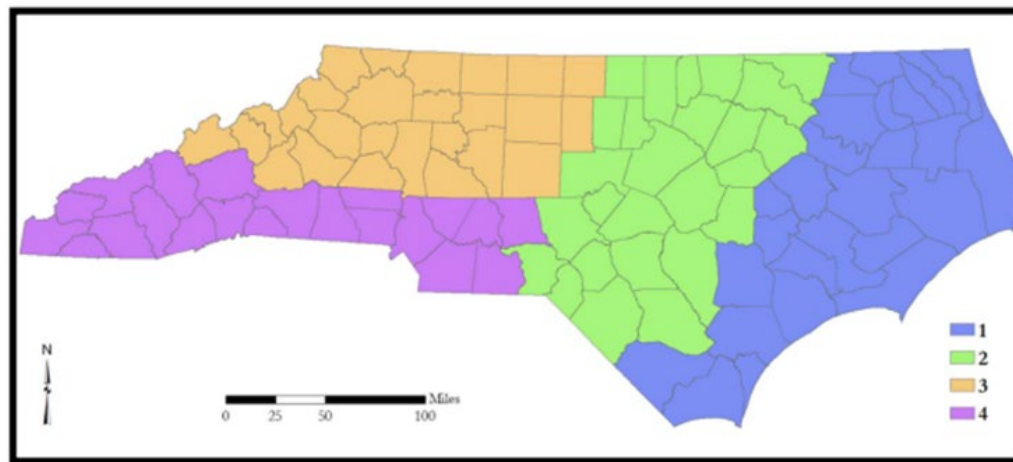
Download Links
[QL1/QL2 LIDAR Metadata](#)
[QL1/QL2 Tile Layout](#)

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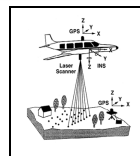




NC Light Detection and Ranging (LiDAR) Elevation Data 4th Statewide Phase



The new datums and the International Foot will be used when we start the 4th phase of statewide LiDAR data collection.



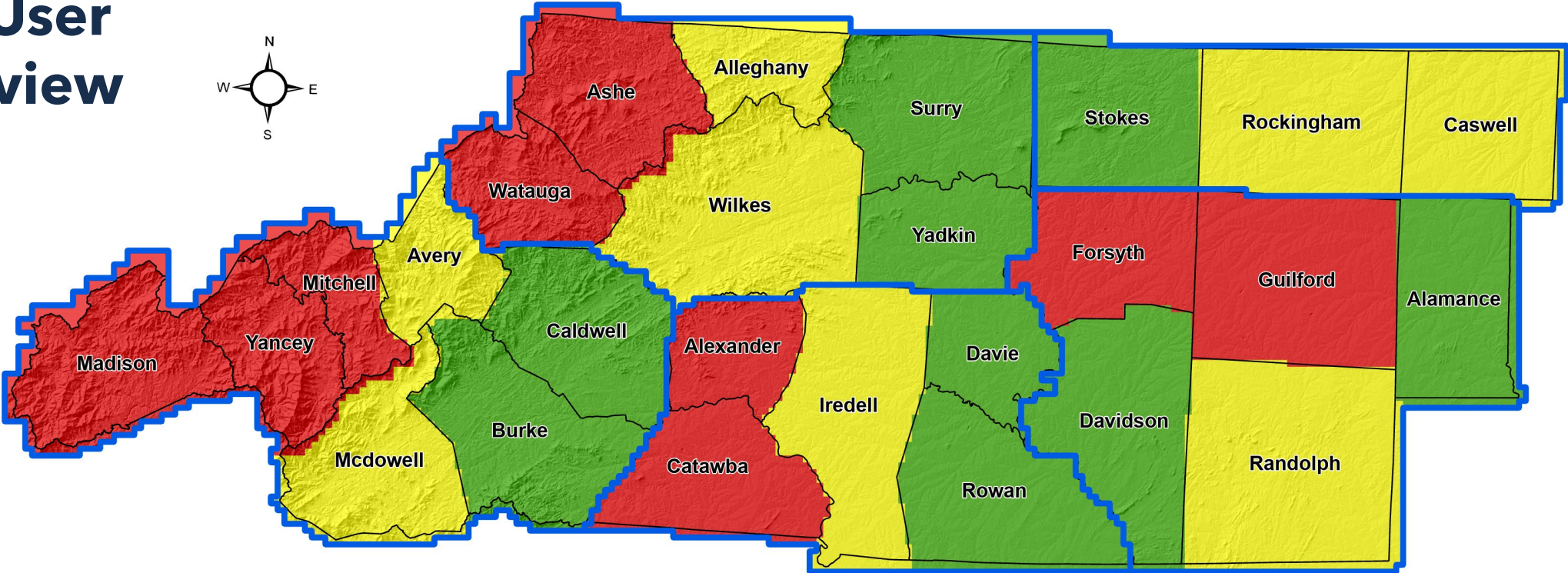
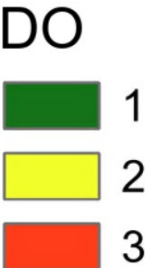
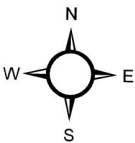
Statewide Orthoimagery Program

Ben Shelton

NC Center for Geographic Information and Analysis

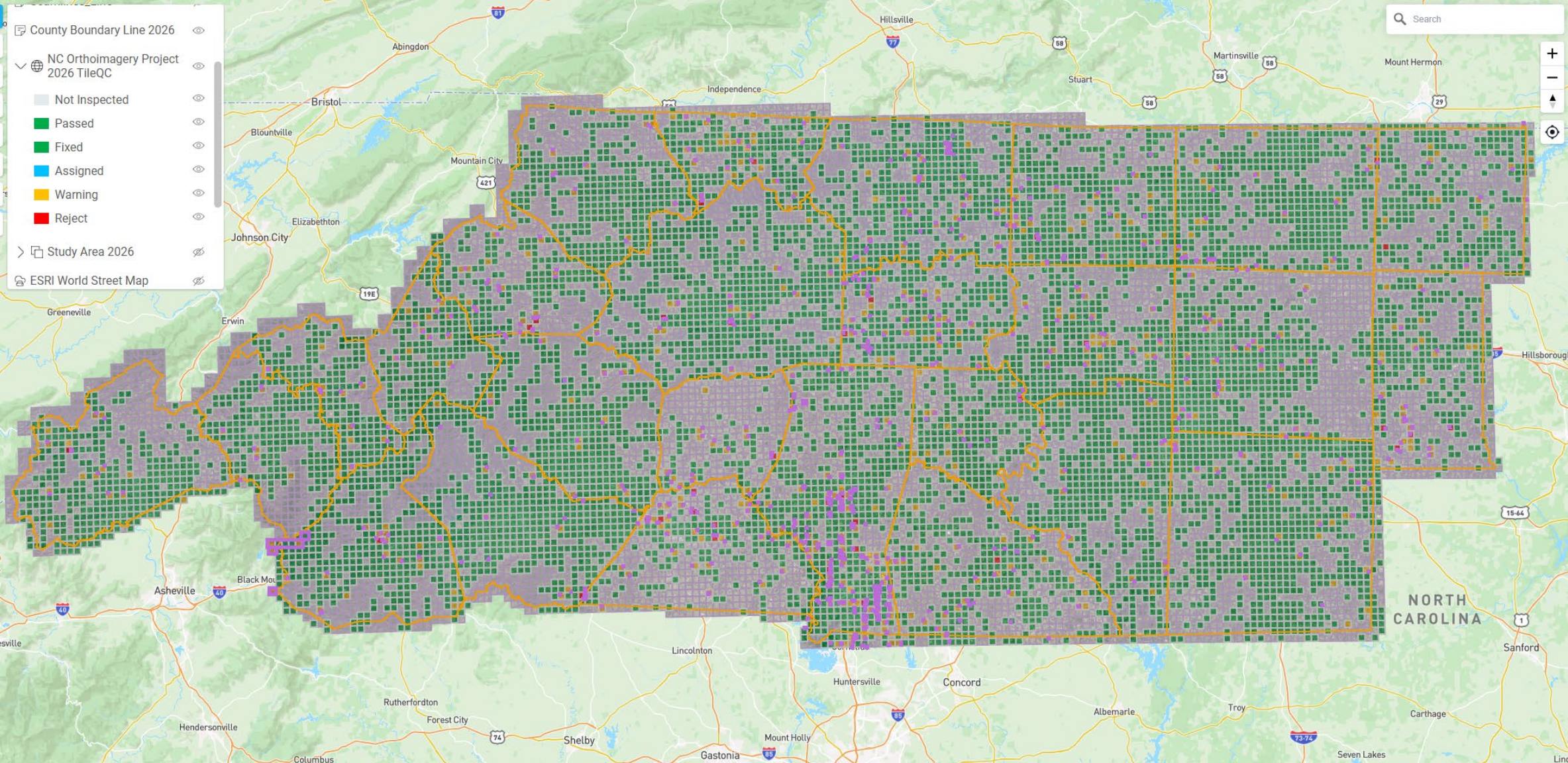
September 10, 2026

2026 End User Quality Review



2026 Orthoimagery Review Schedule								
DO1			DO2			DO3		
County	Review Start	Review End	County	Review Start	Review End	County	Review Start	Review End
Burke	20-Jul	14-Aug	Avery	3-Aug	28-Aug	Madison	17-Aug	11-Sep
Alamance	20-Jul	14-Aug	Alleghany	3-Aug	28-Aug	Alexander	17-Aug	11-Sep
Caldwell	20-Jul	14-Aug	Caswell	3-Aug	28-Aug	Ashe	17-Aug	11-Sep
Davidson	20-Jul	14-Aug	Iredell	3-Aug	28-Aug	Catawba	17-Aug	11-Sep
Davie	20-Jul	14-Aug	McDowell	3-Aug	28-Aug	Forsyth	17-Aug	11-Sep
Rowan	20-Jul	14-Aug	Randolph	3-Aug	28-Aug	Guilford	17-Aug	11-Sep
Stokes	20-Jul	14-Aug	Rockingham	3-Aug	28-Aug	Mitchell	17-Aug	11-Sep
Surry	20-Jul	14-Aug	Wilkes	3-Aug	28-Aug	Watauga	17-Aug	11-Sep
Yadkin	20-Jul	14-Aug				Yancey	17-Aug	11-Sep

NPM26 Quality Review



Current Orthoimagery Program Cycle

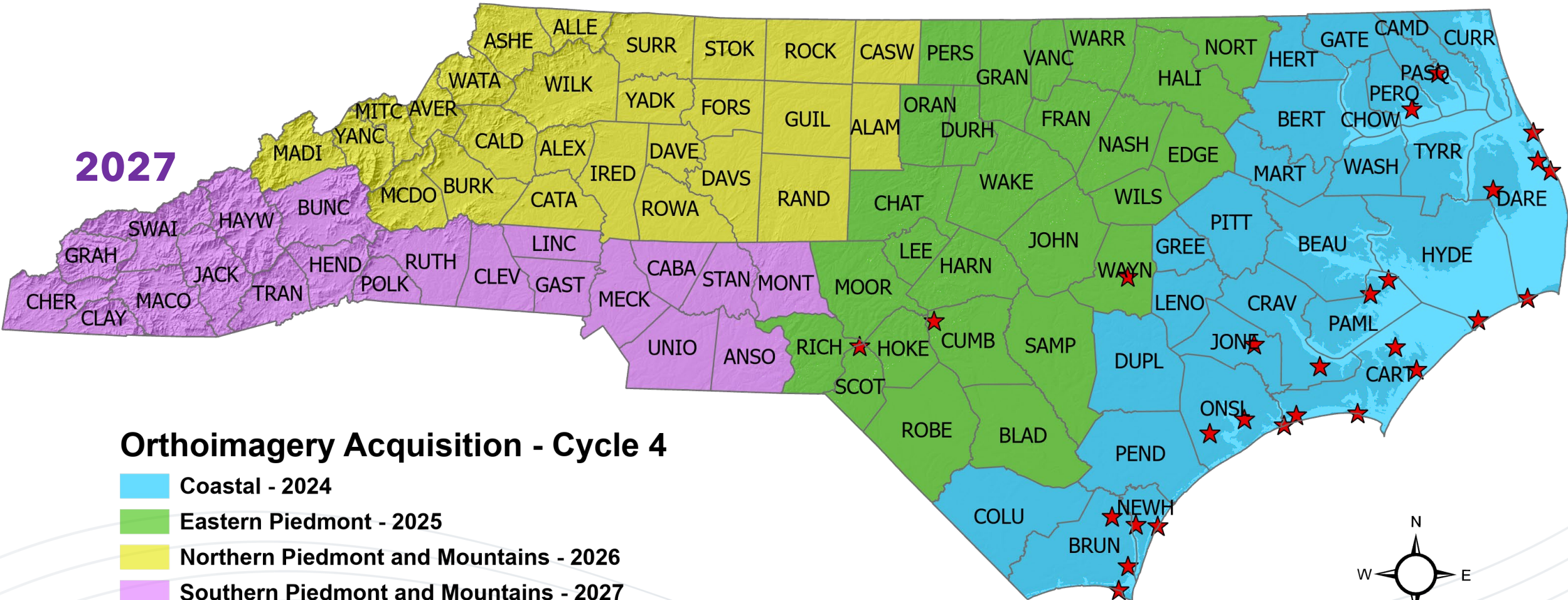
4-Year Cycle

2026

2025

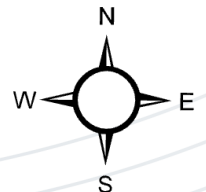
2024

2027



Orthoimagery Acquisition - Cycle 4

- Coastal - 2024
- Eastern Piedmont - 2025
- Northern Piedmont and Mountains - 2026
- Southern Piedmont and Mountains - 2027
- ★ Military Installations



Orthoimagery Needs Assessment Survey

NC Orthoimagery

Discover and Access Imagery Across the State

Since 2010, the North Carolina 911 Board has funded the collection and production of high resolution orthoimagery for North Carolina. Approximately a quarter of the state is flown each year and used as a mission critical tool for emergency planning and response. The imagery is also made freely available to the public and commonly used by a number of public and private efforts, including engineering, urban and regional planning, economic development, environmental assessment, and land surveying.



[North Carolina Orthoimagery Needs Assessment](#)

Please take the North Carolina Orthoimagery Needs Assessment Survey to provide feedback on your current and future imagery needs. Your feedback will help evaluate how well the Statewide Orthoimagery Program is meeting those needs in its current form and identify opportunities for improvement.

[Take Survey](#)

Orthoimagery Needs Assessment Survey

Survey Initially Released on 6/5
Current responses as of 8/18

107

Total Responses

25

Unique Counties
(32 total county responses)

22

NC Municipalities
(27 total municipality responses)

Recommendation: need additional outreach to underrepresented stakeholders before we can use the survey results as the basis for any program adjustments.

- Counties have the strongest representation of any group with 25% responding.
- All other groups could benefit from additional outreach.

14

911 / PSAP
(Subset of County and Municipality Responses)

9

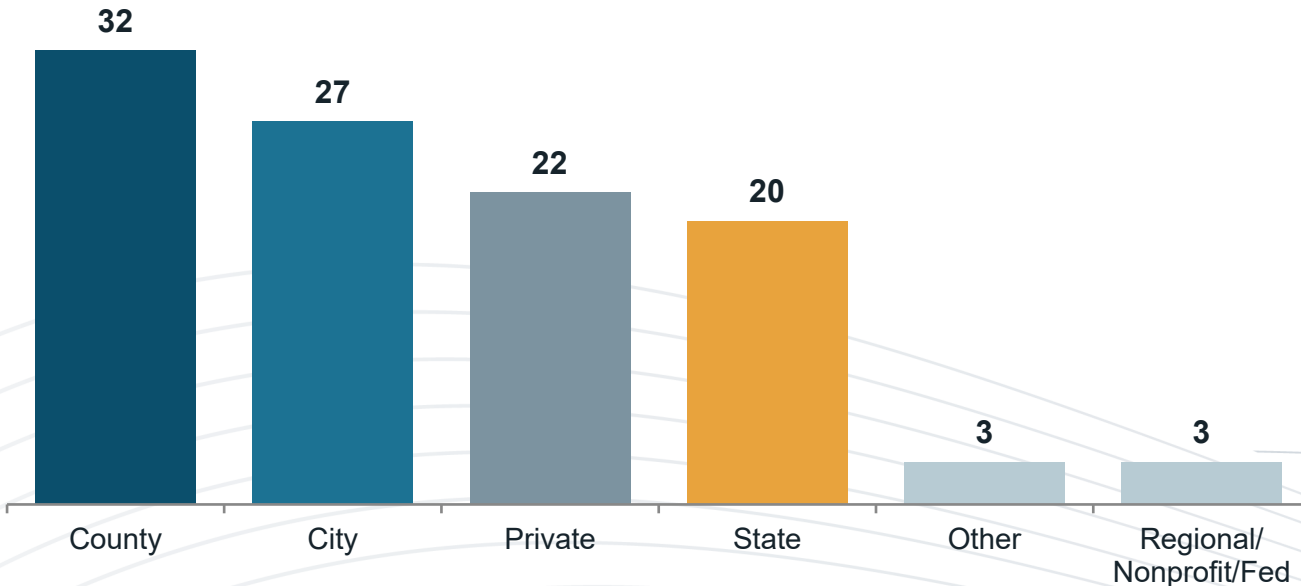
Unique State Agencies
(20 total state responses)

22

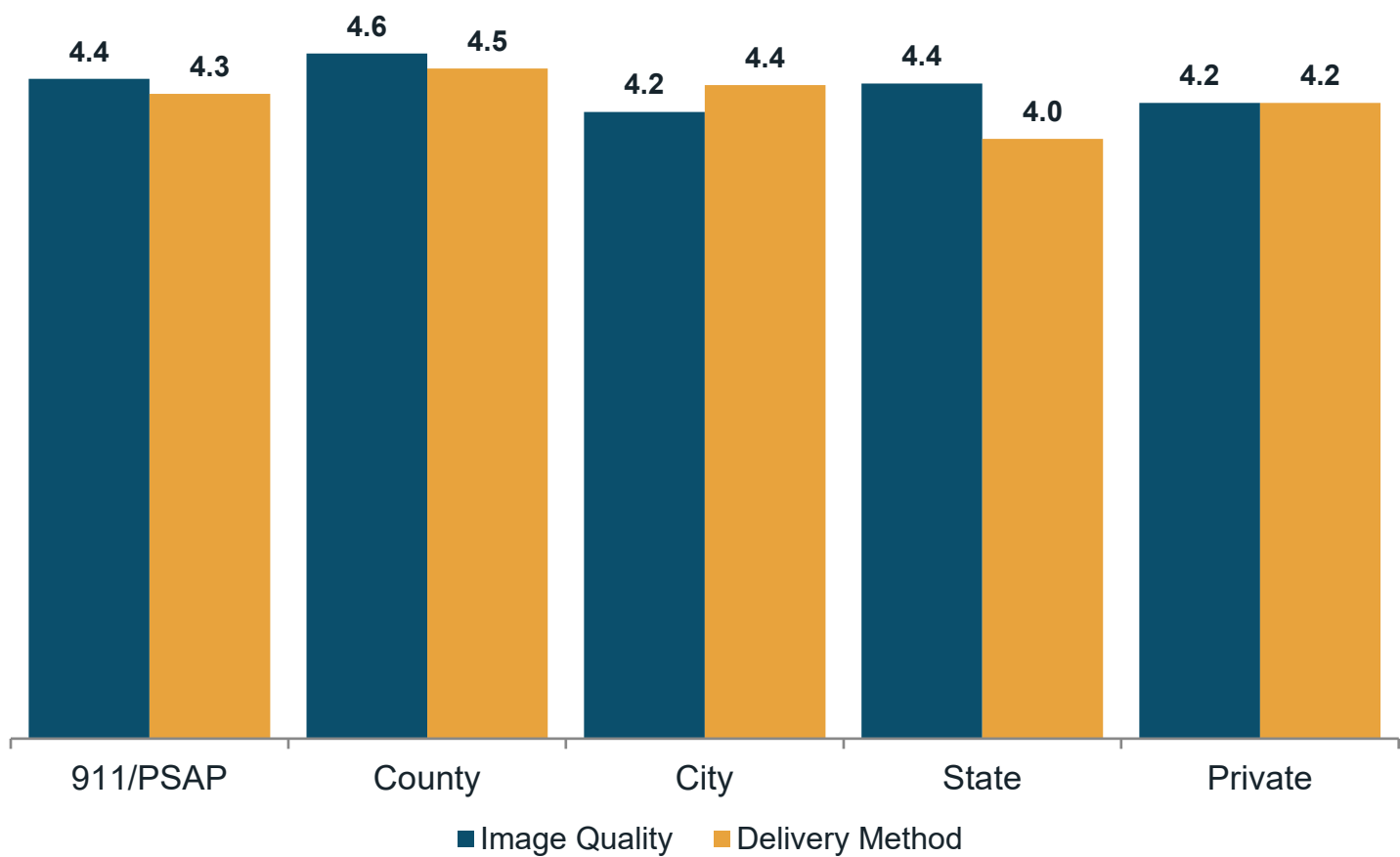
Private
(Engineering, Surveying,
Consulting, etc.)

1

Federal Agency
(US Forest Service)



Satisfaction by Group



Access (OneMap) Satisfaction

911/PSAP	100%	14 / 14
County	100%	32 / 32
City	93%	25 / 27
State	85%	17 / 20
Private	95%	21 / 22

Lower state satisfaction with delivery methods mainly due to the current delivery architecture is optimized for county-scale downloads and not easy to access cloud-optimized GeoTIFF for analytical users.

Orthoimagery Uses

Organization-level and personal-use mentions combined, ranked by total frequency

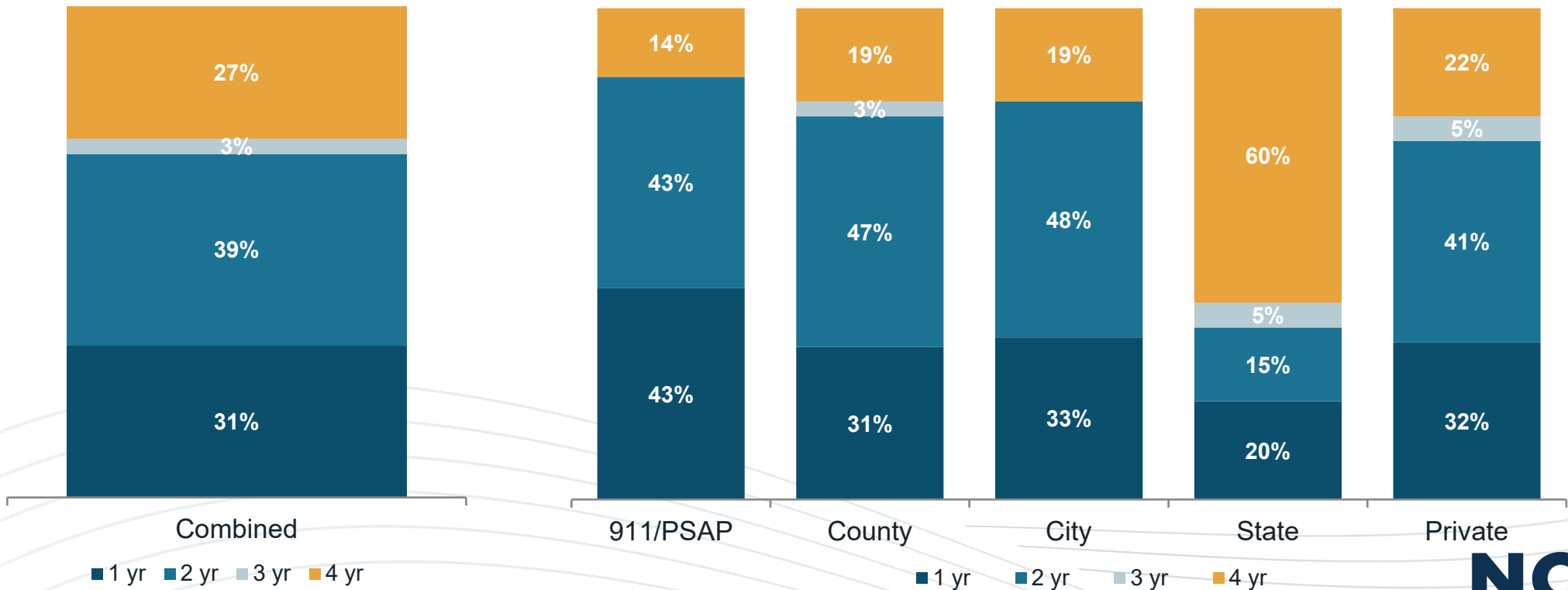
County			City			State			Private		
1	911 / Dispatch	17	1	General Mapping / GIS Work	13	1	Basemap	9	1	General / Base Mapping	10
2	General Mapping	17	2	Planning & Development Review	13	2	Feature Extraction / Digitization (AI/ML)	6	2	Land Surveying / Site Review	7
3	Addressing	15	3	Code Enforcement	11	3	Feature / Location Lookup	4	3	Design / CAD Reference	6
4	Tax Assessment	12	4	Public Display / Communication	10	4	General Mapping / Visualization	3	4	Planning	5
5	Public Display	8	5	Basemap	8	5	Historical Change Comparison	3	5	QA/QC	4
6	Planning	8	6	Impervious Surface Calc.	6	6	Geohazard Mapping	2	6	Forest / Timber Management	2
7	Emergency Response (incl. SAR)	8	7	Change / Time Comparison	4	7	Product Background Reference	1	7	Asset Collection / Inventory	2
8	Change / Time Comparison	6	8	Site Condition Review	3	8	Public Inquiry Support (bdry, ROW)	1	8	Lidar Classification / QC	2
9	Code Enforcement	6	9	Addressing	3	9	Field Ops (forestry/wildlife)	1	9	Change / Time Comparison	2
10	Property / Parcel Mapping	6	10	Engineering	2	10	Public Education	1	10	Environmental Health / Septic	1

Counts combine “how your organization uses imagery” and “how you personally use imagery” mentions, with closely related phrases (e.g., “general mapping” and “multi-purpose GIS work”) merged into a single category.

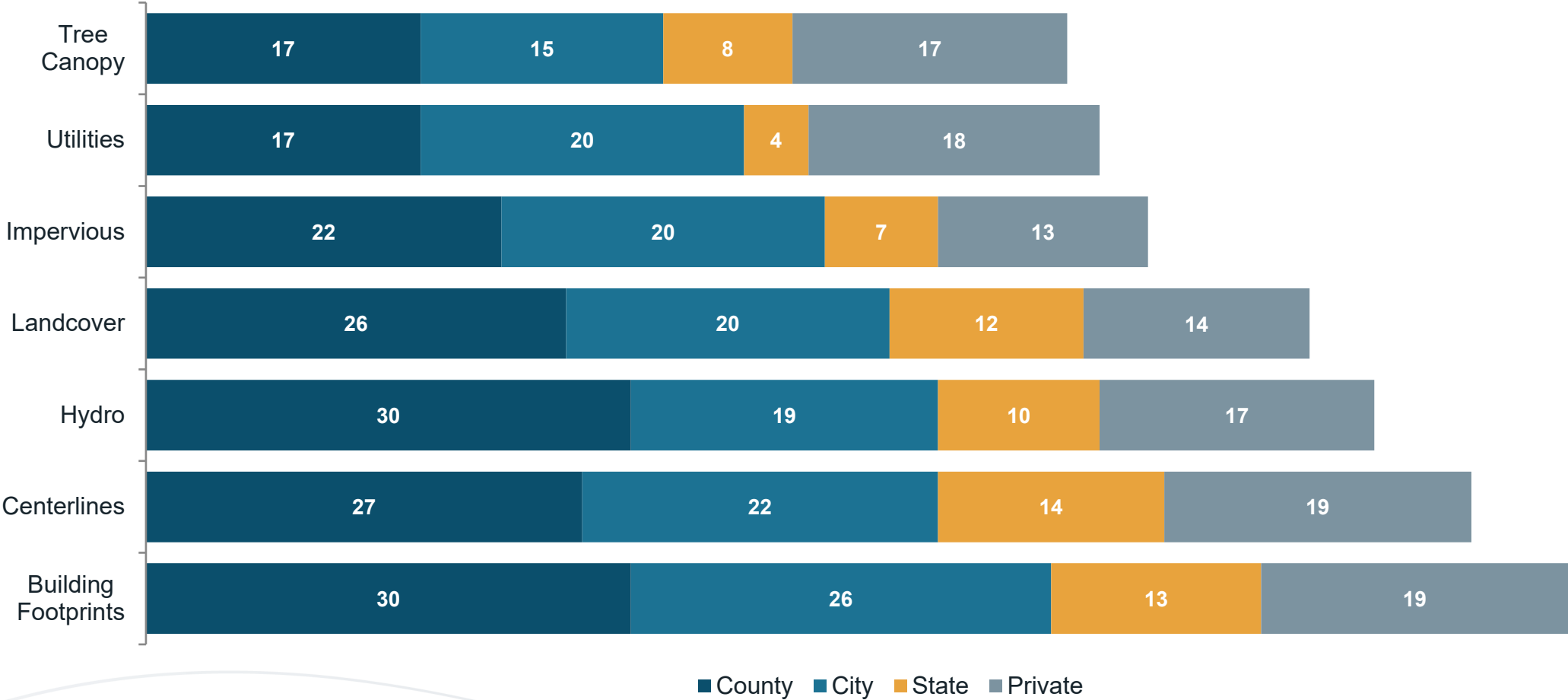
Update Cycle Needs

Reasons cited for more frequent collections:

- **Growth/Development tracking** – pace of new subdivisions, road construction, and commercial development
- **911/public safety accuracy** – newer imagery equals more accurate NG911 GIS data and safer/faster call response
- **Tax appraisal accuracy** – imagery needed to validate new construction for billing
- **Emergency response and hazard mitigation efforts** – landslide and storm-driven land cover changes
- **Stormwater/utility billing** – new impervious surface-based stormwater fee structures that require current imagery to bill accurately.
- **Decision-making/public communication** – council and department-head demand for leadership to make infrastructure decisions
- **Transportation network changes** – road construction modifies network faster than imagery can keep up so supplemental sources required



Derived Product Needed by Group



Preliminary Actionable Items by Group

County	City	State	Private
• Shorten the update cycle — the most specific, growth-driven requests of any group • Rural bandwidth limits full-county downloads — keep offline/hard-drive options • Oblique & true ortho valued for 911/EM, tax appraisal & permitting • Half of 911/PSAP responses still want physical hard drive deliveries over online downloads	• Improve outreach — some respondents are unfamiliar with the program overall • A few flagged current resolution as “grainy” for urban-scale work • Above-average demand for utilities & tree canopy layers	• Offer seamless statewide tiles / cloud-optimized GeoTIFFs instead of county mosaics • Improve REST/streaming service documentation & endpoint discoverability • Monitor streaming reliability — past slowdowns noted (improved, not resolved)	• Keep hard-drive delivery available for smaller municipalities without bandwidth • Highest relative demand for the utilities derived layer

***AI Generated Action Items from responses**



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<https://www.nconemap.gov/pages/imagery>