

North Carolina State and Local Government Metadata Profile

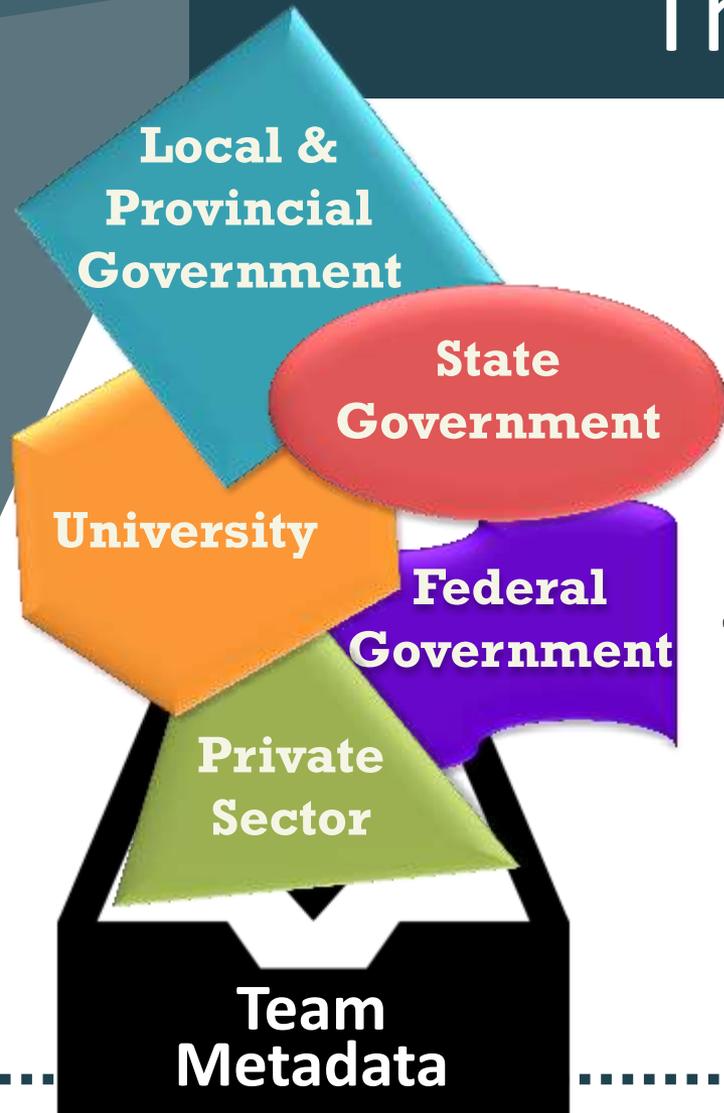
FGDC ISO Geospatial Metadata Summit

May 24, 2017

USGS National Center



The Committee



Objective

Carve down the standard into essential elements that support:

- standards compliance
- data discovery
- data reuse

Issues

- which standard to use?
- how much information/education to include to support implementation?
- how to format a profile?



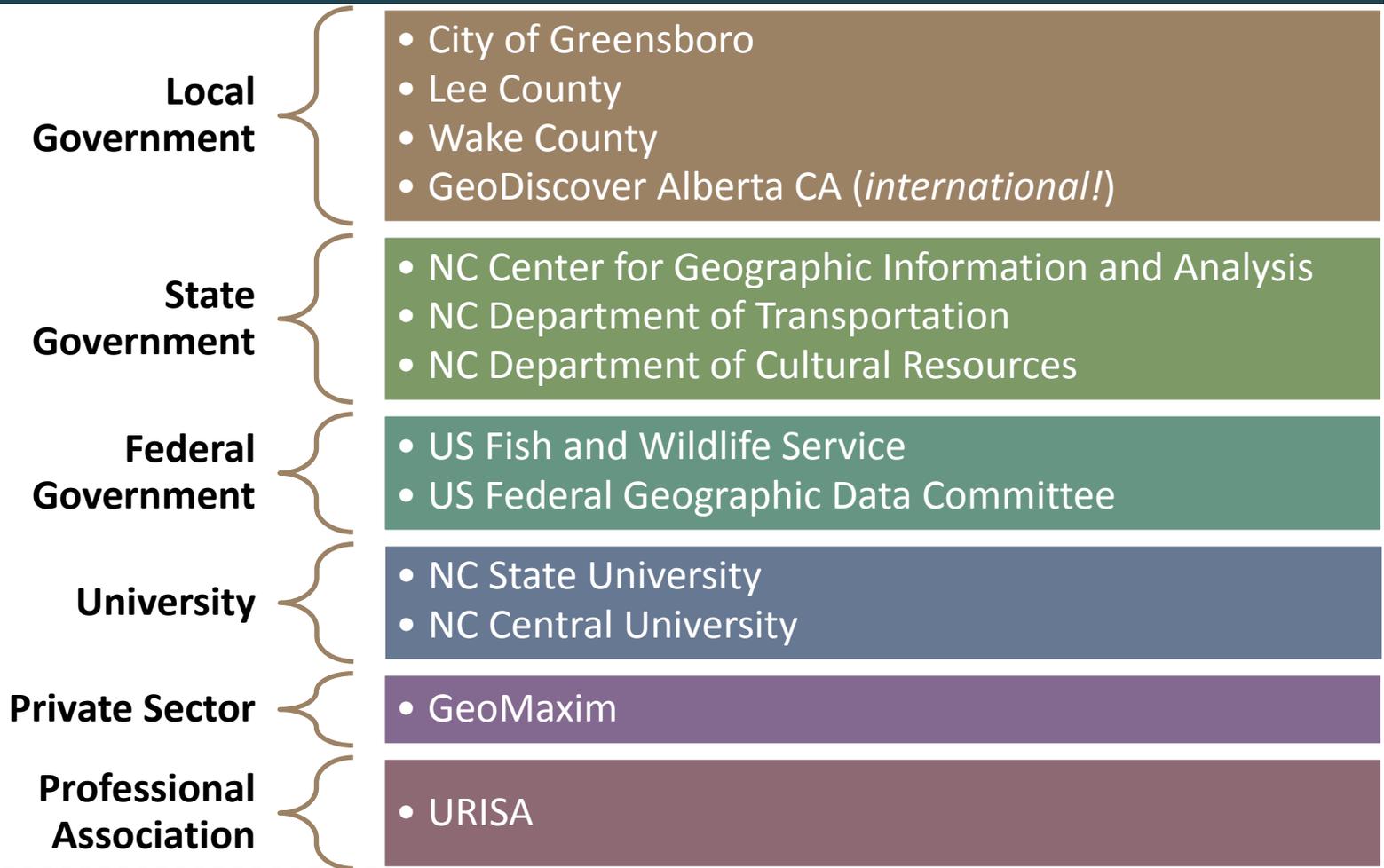
Who's Promoting the Profile and Why?

NC Geographic Information Coordinating Council (NCGICC) would like to:

- facilitate metadata creation
- improve metadata quality
- standardize metadata content
- integrate ISO standards
- preserve data investments
- enhance data discovery and sharing



Who Created the Profile?



Which Standard Does it Use?

Both national and international standards:

ISO (primarily)

International Organization for Standardization

- *19115: Geographic Information – Metadata: 2003*
- *19115-1: Geographic Information – Metadata – Part1: Fundamentals: 2014*
- *19119: Geographic Information – Services: 2016*

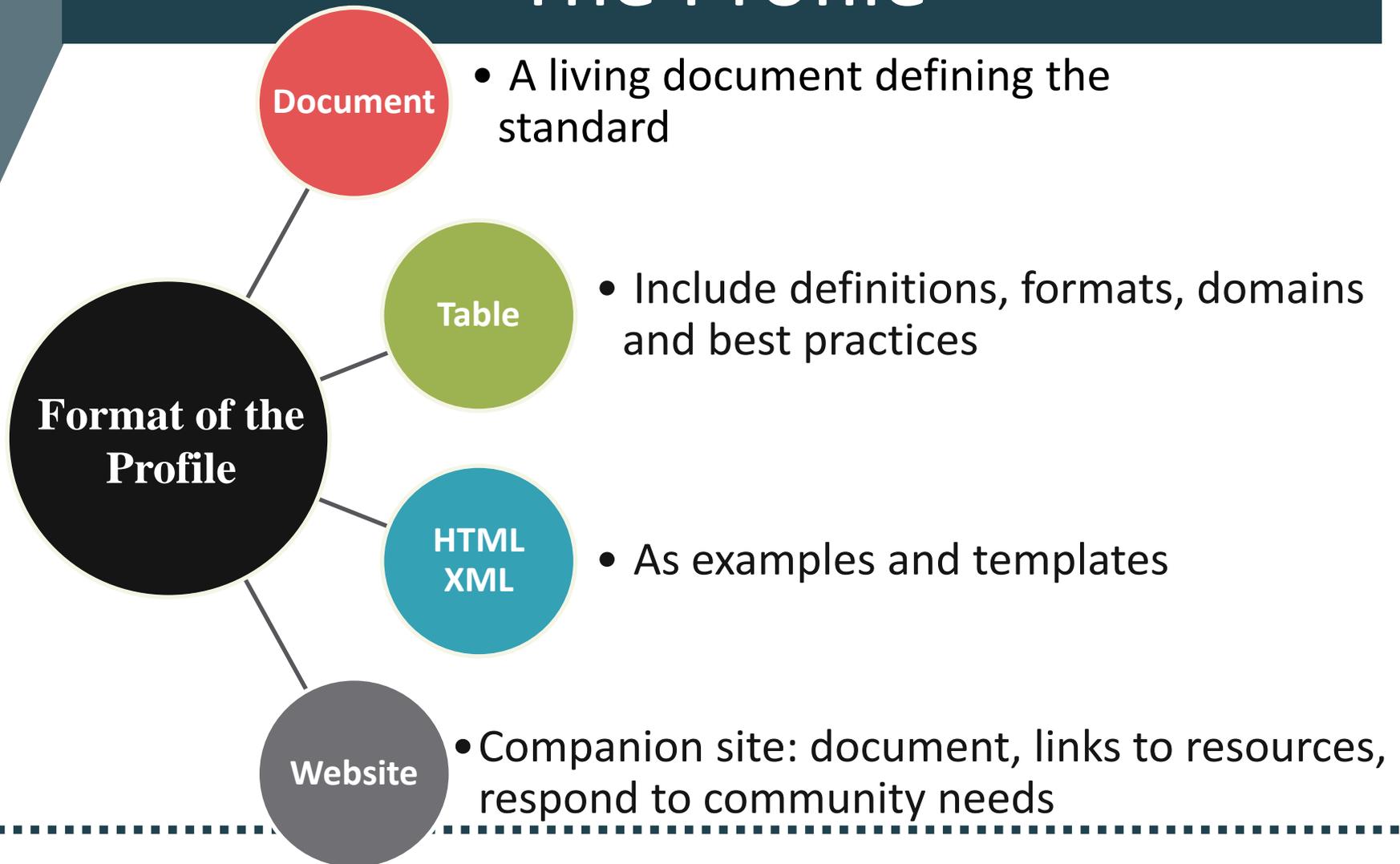
update to

in transition to

CSDGM (compliance)

- *FGDC Content Standard for Digital Geospatial Metadata: 1998*
- *Adopted by NC in 1996*

The Profile



What's In the Profile?

Required Data Elements

- *Title*
- *Publication Date*
- *Custodian or POC*
- *Online Linkage*
- *Abstract*
- *Status*
- *Maintenance / Update Frequency*
- *Theme Keywords*

- *Use Constraints*
- *Topic Category*
- *Geographic Extent*
- *Temporal Extent*
- *Feature Catalog*
- *Process Description*
- *Spatial Reference Information*

- *Metadata Creation Date*
 - *Metadata Contact*
 - *Metadata Point of Contact*
- Fixed Content*
- *Dataset Language 'EN'*
 - *Character Encoding 'utf8'*

What's In the Profile?

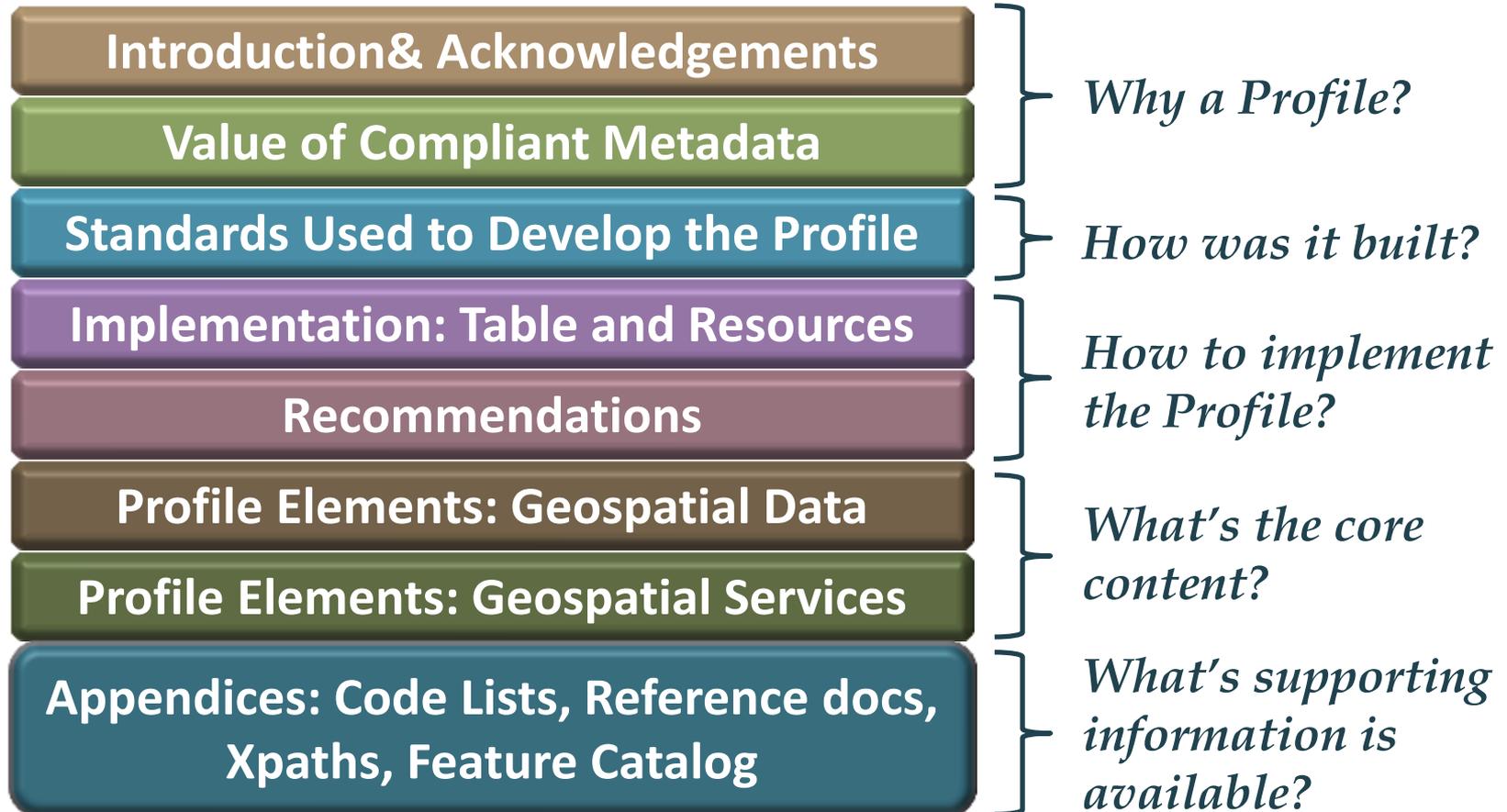
Optional Elements

- *Purpose*
- *Currentness Reference*
- *Browse Graphic Filename*
- *Browse Graphic File Description*
- *Browse Graphic File Type*

- *Theme Keyword Thesaurus*
- *Place Keyword Thesaurus*
- *Access Constraints*
- *Logical Consistency Report*
- *Completeness*

- *Process Date*
- *Metadata Contact Address*
- *Metadata Contact Phone*
- *Metadata Standard Name*
- *Metadata Standard Name*

What's in the Document



The Table is the Thing

Table 1 - Metadata for Geospatial Data

Legend:

■ NC Profile and ISO required

■ Optional and/or CSDGM required

metadata element name

type of values allowed

guidance and examples

Element	Data Type	NC Best Practice
<p>Title</p> <p><i>(mandatory)</i></p>	Free text	<ul style="list-style-type: none"> • Provide a descriptive, unique, name to convey the nature of the data. At a minimum, address: what, where and when. • Avoid acronyms and abbreviations that are not commonly understood though a filename or other identifying reference can be included <i>in addition to</i> the descriptive content. <p>Example: <i>Environmental Sensitivity Index (ESI) Scrub-Shrub and Wetlands, Geographic, Wilmington NC, NAD83, North Caroline Department of Environment and Natural Resources (NCDENR) 2001 [esi_scrub-shrub_wetland_NCDENR_2001]</i></p>

The Table is the Thing

Table 2 –Elements Required for Geospatial Services

Legend:

- NC Profile and ISO required
- Optional and/or CSDGM required

Hyperlink to Code List fixed set of required values

Element	Data Type	NC Best Practice
Service Specific Elements		
Metadata Scope	Metadata Scope Code = 'service'	<ul style="list-style-type: none"> Indicate that the metadata record applies to a 'service' (ISO assumes the metadata is for a dataset unless otherwise specified) If using CSDGM, indicate 'service' as the <i>Geospatial Data Presentation Form</i>
Service Type	Free text	<ul style="list-style-type: none"> The type of service that is being documented. No code list yet exists but OGC service types include: WMS, WFS, CSW, WCS, WMTS, KML and REST. Other free text values are permitted If using CSDGM, add the service type to the 'service' value in <i>Geospatial Data Presentation Form</i>

Writing a Good Title

Element	Data Type	NC Best Practice
Title	Free text	<ul style="list-style-type: none">• Provide a descriptive, unique, name to convey the nature of the data. At a minimum, address: what, where and when.• Avoid acronyms and abbreviations that are not commonly understood though a filename or other identifying reference can be included <i>in addition to</i> the descriptive content.

What

Environmental Sensitivity Index (ESI) Scrub-Shrub and Wetlands, Geographic, Wilmington NC, NAD83, North Carolina Department of Environment and Natural Resources (NCDENR) 2001
[esi_scrub-shrub_wetland_NCDENR_2001]

filename

Where

When

Use Constraints

Element	Data-Type	NC-Best-Practices
Use Constraints	Free text	<ul style="list-style-type: none">Indicate any restrictions associated with using the data. Examples: <ul style="list-style-type: none">'The locations in this data were not surveyed and should not be used for legal purposes'

- Community, not ISO, required
- Consider including:
 - *these data were not surveyed and should not be used for legal purposes*
 - *strongly recommended that careful attention be paid to the contents of the metadata file associated with these data to evaluate data set limitations, restrictions, or intended use*
 - *no warranty expressed or implied is made regarding the accuracy of the data*

North Carolina Metadata Profile: **Profiles and Templates**



Why a Profile of a Profile?

Give practitioners a head start

Additional requirements for a theme may enhance value

Thematic Profiles developed or in progress:

- *Parcels (Cadastral) Data*
- *Street Centerlines (Transportation) Data*
- *Municipal Boundaries*
- *Orthoimagery*
- *Streams (Hydrography)*
- *Address Point Data*

Profile Custom Content

Parcel data custom content:

- Characters to find and replace
- Sample **Abstract** specific to parcels
- Sample **Use Constraint** specific to parcels
- **Keywords** added including parcels, cadastral, property, tax, land records, landowner, assessed value, etc.
- Reference to the standardized statewide NC Parcels accessible through NC OneMap

Software Templates

Software-specific templates of the NC profile:

- Esri
- CATMDEdit
- QGIS

Thematic templates to date:

- County parcel data / Esri
- State agency generic data / Esri

North Carolina Metadata Profile:
Lessons Learned
and
Next Steps



What Worked?

- Support from GICC
 - Active and interested team members
 - Steering ship of negative metadata perception toward the positive
 - Theme specific content
 - Professional organization support
 - NCPMA, NCAUG
 - Hands-on training
-

Challenges

- ISO Standards
- User Friendly Editors
- Resources
- Local government focus
- Lack of validation tools

Implementation Goals

- Expand practical application in local governments
- Reduce metadata deficits
- Improve quality and achieve efficiencies
- Develop and share tools and methods

Future Training

NCGICC, NCDOT and North Carolina Central University: face-to-face and online training

Key elements:

- NCCU YouTube page [youtube.com/DEEGSNCCU](https://www.youtube.com/DEEGSNCCU)
- Logistical support
- Hands-on workshops on the new ISO 191*** metadata standard
- Updated and new training materials for ISO 191***

Contacts

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North Carolina State and Local Government Metadata Profile for Geospatial Data and Services

North Carolina Geographic Information Coordinating Council
Statewide Mapping Advisory Committee
Metadata ad hoc Committee

December 30, 2016



<http://www.nconemap.com/DiscoverGetData/Metadata>