

Interstate Mining Compact Commission (IMCC)
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Mineral exploration resources and aids in North Carolina



presented by

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Mineral exploration resources and aids in North Carolina

- Detailed geologic mapping
- Current and recent detailed geologic mapping (STATEMAP and EDMAP)
- State's digital GIS layers (<http://www.nconemap.com/>)
 - Streams, cultural features, and cadastral (property) tax data layers
- LiDAR – statewide (digital elevation models)
- Orthoimagery – statewide and county data
 - Refreshed frequently, scales to 1:12,000

Mineral exploration resources and aids in North Carolina (continued)

- NC Geological Survey databases
 - NURE database
 - Core and cuttings repository
 - Historic mineral resource commodity files + MRDS (USGS)
- NC State University's Mineral Research Lab (MRL)
 - Capabilities and
 - Collaborative work with the North Carolina Geological Survey

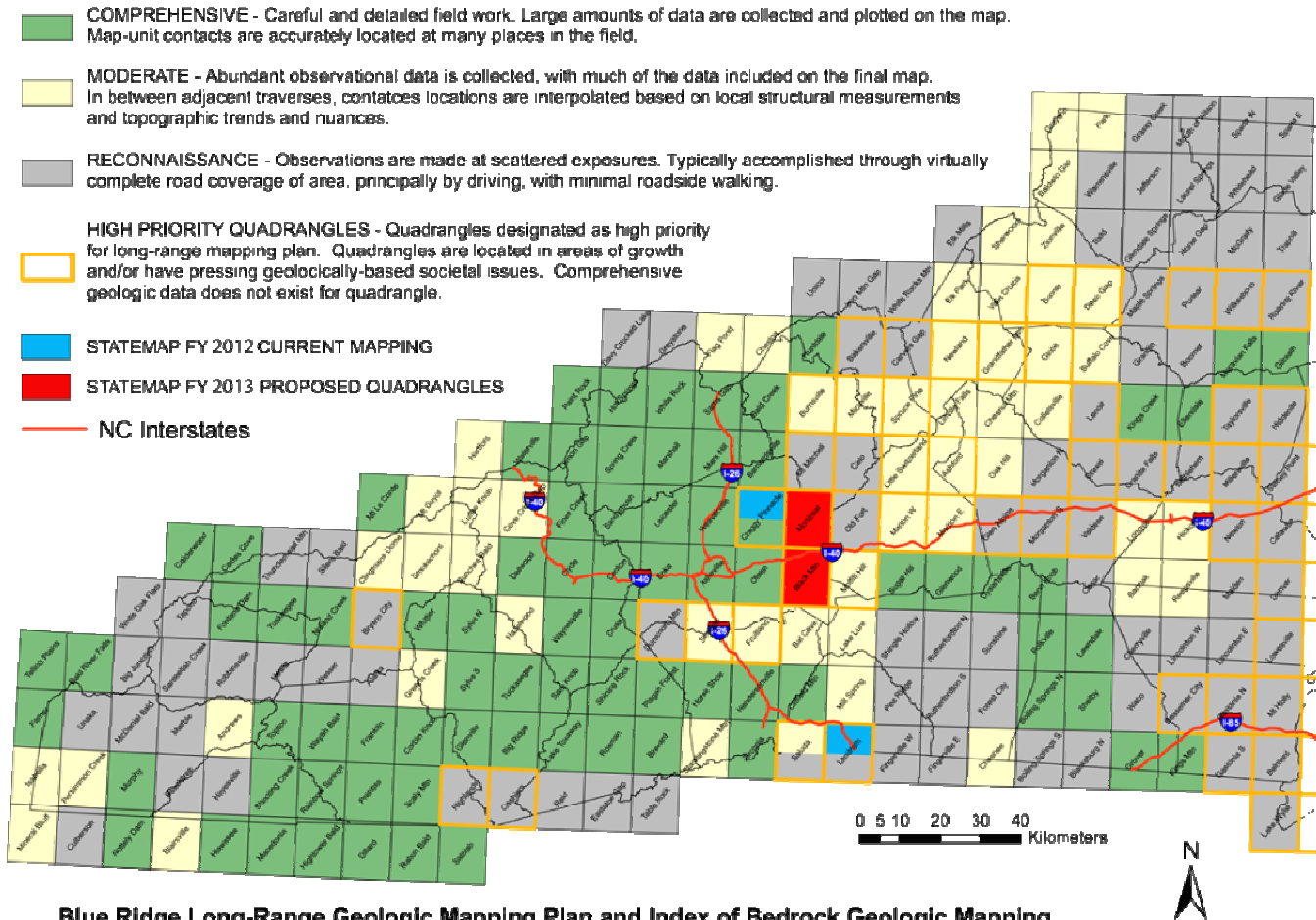
**Detailed geologic mapping (digital data)
Published inventory state and federal
National Geologic Map Database:**

http://ngmdb.usgs.gov/ngmdb/ngmdb_home.html

Current and recent detailed geologic mapping
STATEMAP and EDMAP components of the
National Cooperative Geological Mapping
Program

- Blue Ridge
- Piedmont

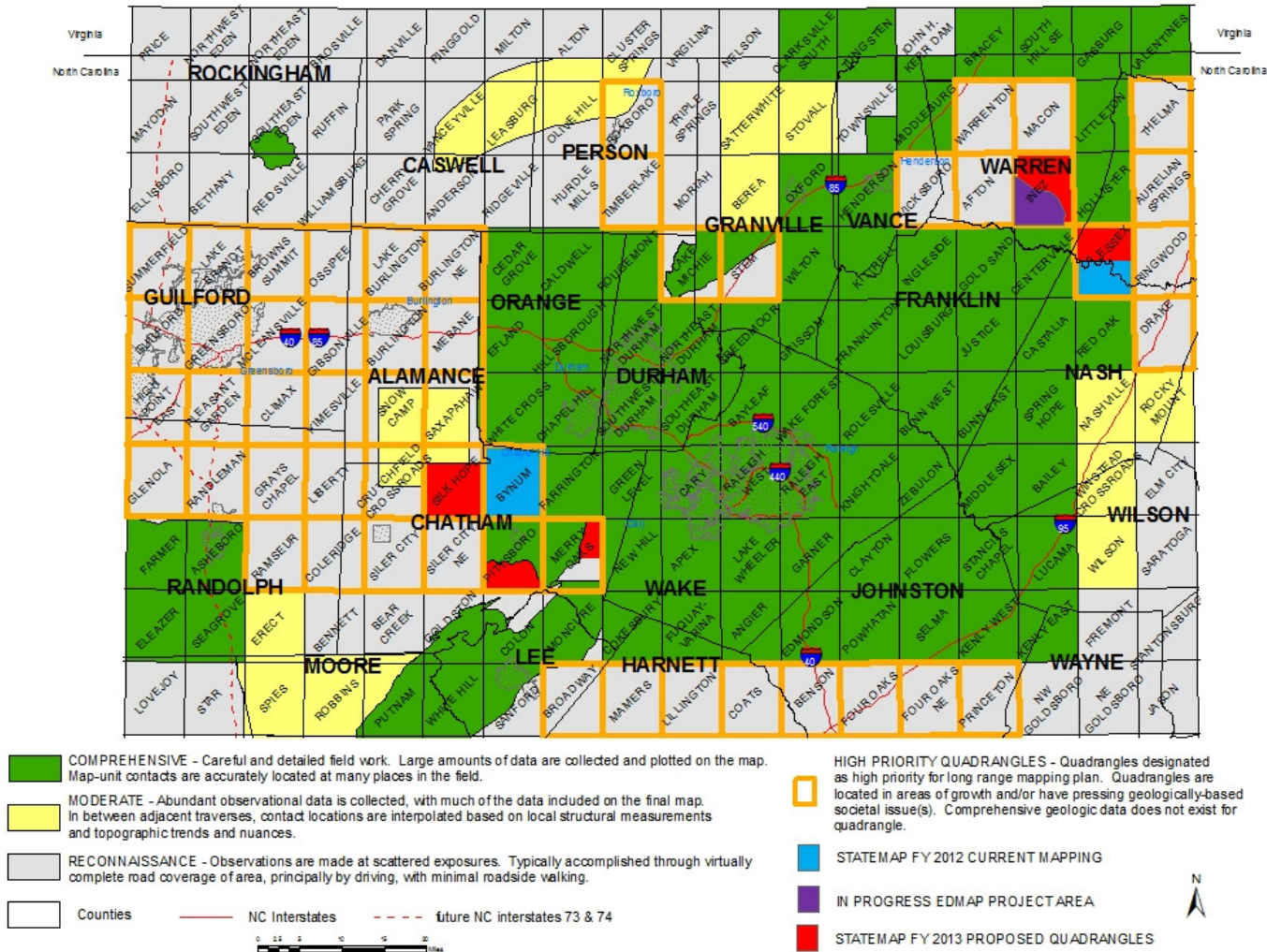
Blue Ridge Province geologic mapping



Blue Ridge Long-Range Geologic Mapping Plan and Index of Bedrock Geologic Mapping within each 7.5-minute Quadrangle in Western North Carolina

Piedmont Province geologic mapping

Northeast Piedmont Long-Range Geologic Mapping Plan and Index of Bedrock-Geologic Mapping within each 7.5-minute Quadrangle in the Northeast Piedmont of North Carolina



Summary

- North Carolina has diverse and integrated data useful for mineral exploration
- Modern exploration should be GIS-based to take advantage of available digital data
- Work flow layers would build on LiDAR with overlays of DRG topomaps, cultural and cadastral data for base maps, followed by geology, geochemistry, geophysics, etc.