NC Department of Environment
and Natural Resources
Division of Land Resources
James D. Simons, Director

North Carolina Geological Survey
Geologic Note 9

Generalized Bedrock Geologic Map of Wake County, North Carolina

(with a focus on the Falls Leucogneiss)

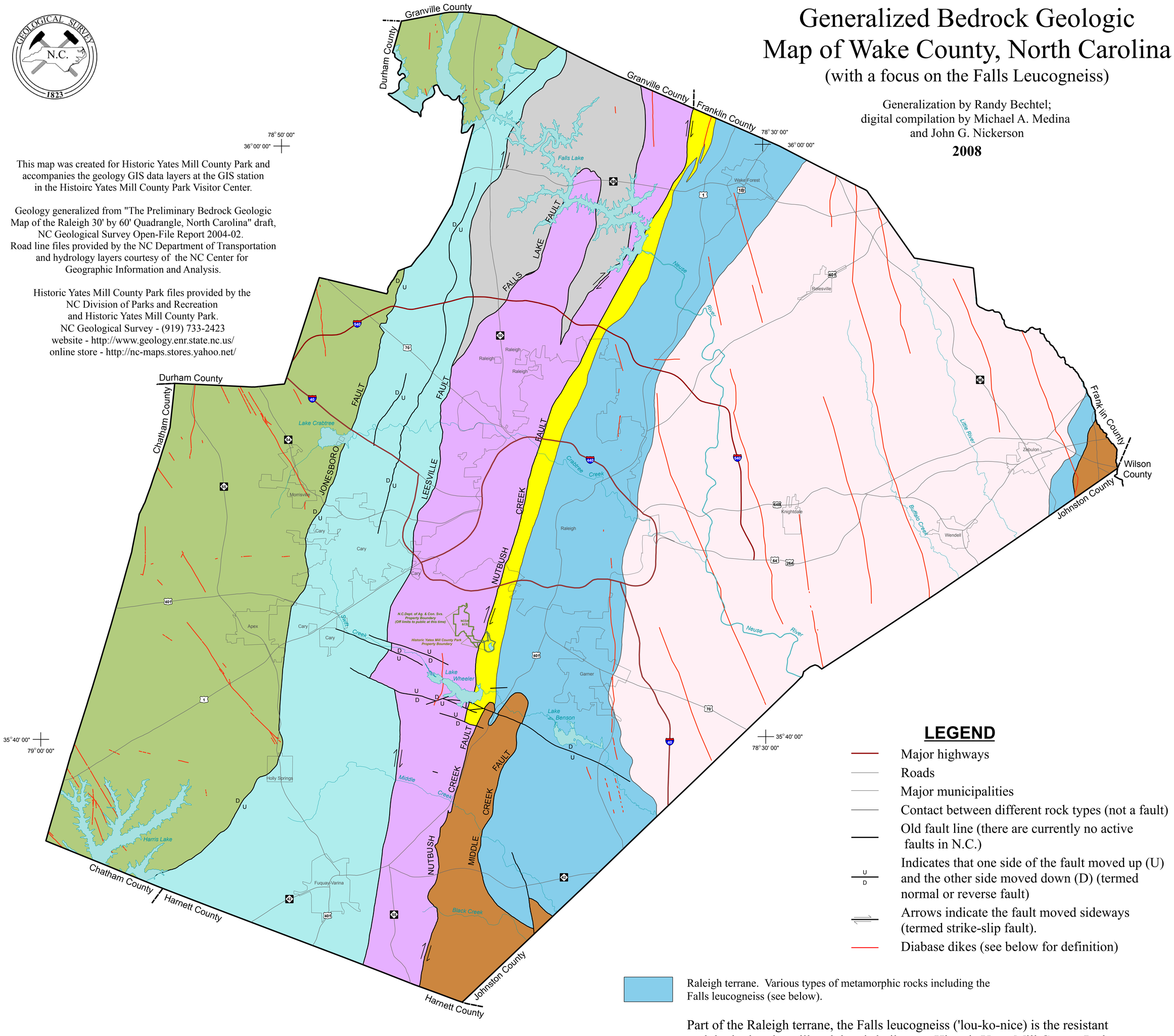
Generalization by Randy Bechtel;
digital compilation by Michael A. Medina
and John G. Nickerson

2008

This map was created for Historic Yates Mill County Park and accompanies the geology GIS data layers at the GIS station in the Histoirc Yates Mill County Park Visitor Center.

Geology generalized from "The Preliminary Bedrock Geologic Map of the Raleigh 30' by 60' Quadrangle, North Carolina" draft, NC Geological Survey Open-File Report 2004-02.
Road line files provided by the NC Department of Transportation and hydrology layers courtesy of the NC Center for Geographic Information and Analysis.

Historic Yates Mill County Park files provided by the NC Division of Parks and Recreation and Historic Yates Mill County Park.
NC Geological Survey - (919) 733-2423
website - http://www.geology.enr.state.nc.us/
online store - http://nc-maps.stores.yahoo.net/



SCALE 1:100,000

LEGEND

- Major highways
- Roads
- Major municipalities
- Contact between different rock types (not a fault)
- Old fault line (there are currently no active faults in N.C.)
- U / D — Indicates that one side of the fault moved up (U) and the other side moved down (D) (termed normal or reverse fault)
- Arrows indicate the fault moved sideways (termed strike-slip fault).
- Diabase dikes (see below for definition)

Raleigh terrane. Various types of metamorphic rocks including the Falls leucogneiss (see below).

Part of the Raleigh terrane, the Falls leucogneiss ('lou-ko-nice) is the resistant rock body that the mill and dam is built on at Historic Yates Mill County Park. Notice that dams for Falls Lake, to the north, and Lake Wheeler to the south, are also located on this rock body. There is a sample of the rock in the HistoricYates Mill County Park Visitor Center.

Deep River basin. Various types of sedimentary rocks.

Carolina terrane. Various types of metamorphic rocks.

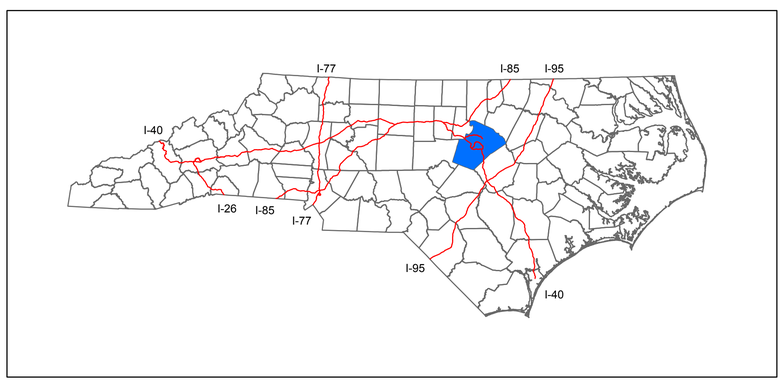
Falls Lake terrane. Various types of metamorphic rocks.

Crabtree terrane. Various types of metamorphic rocks.

Spring Hope terrane. Various types of metamorphic rocks.

Rolesville batholith. Various types of igneous rock.

Location of Wake County within North Carolina



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Geologic Terms:

Bedrock – Solid rock that is sometimes covered by soil, vegetation, roads and buildings.
Terrane – Group of rocks that have a similar geologic history.
Metamorphic – Rocks that have been changed from their original form by heat and pressure.
Igneous – A rock that was once molten.
Sedimentary – A rock made of pieces of other rocks or fossils.
Leucogneiss ('lou-ko-nice) - Leuco means light-colored and gneiss is a type of metamorphic rock.
Diabase dike - Diabase is a type of basalt (igneous rock) and a dike is a type of igneous rock body that cuts through the surrounding rocks.
Batholith - A large mass of igneous rock that was intruded into the surrounding rock.