

FROM RIVERS TO SOUNDS IN THE BERTIE WATER CRESCENT

AN EARTH & ENVIRONMENTAL SCIENCE PROGRAM THAT FOLLOWS THE WATER

WORKSHOP 2: WATER WATER EVERYWHERE

Cashie River Center: 8:00 am to 3:00 pm

NORTH CAROLINA LAND OF WATER (NC LOW) & A TIME FOR SCIENCE (ATFS)

www.nclandofwater.org & www.atimeforscience.org

AGENDA:

8:00-8:30: Introductions and Six Big Concepts in Earth and Environmental Science

8:30-9:00: Review of previous workshop with a K-W-L chart.

Your Place in Space: North Carolina, Coastal Plain, and Bertie County

Lidar map of “Bertie Water Crescent” (Fall Line to Suffolk Shoreline)

Lidar map of Bertie Peninsula without and with towns and roads (Where is your home?)

9:00-10:00: Bertie County (Thinking Diagram for Water)

Water, water, water everywhere and it’s drainage systems (label Bertie Co. map)

From “Rivers to Sounds” A history of change (map: Fall Line to Suffolk Shoreline)

The “5 Water Hubs” of the “Bertie Water Crescent” (label Bertie map)

10:00-10:10: Break

10:10-11:00: Rain, Wind, and Dams

Storms: Floods & Droughts

Riverine Eco-systems, and Human Development

Water Level Recorders & Websites

The ditch or pond in your school yard

11:00-11:15: Summary: Thinking Diagram for Water

11:15-11:30: Lunch Break (supplied)

11:30-1:30: Meet at the van with warm clothes and hiking shoes/boots; travel to the Cashie River system to observe the characteristics & dynamics of a world class tributary stream: School House Rd, Hoggards Mill, Downtown Windsor, Elm St. Boardwalk, Sans Souci Ferry, and Cashie River Center.

1:30-2:00: Return to the Cashie River Center

2:00-3:00: Wrap Up the K-W-L chart, next workshop, and assignments

FIELD TRIP: CASHIE RIVER DRAINAGE SYSTEM

The Main Concepts

1. Cashie River Basin: Trunk and Tributaries
2. Cashie River Gradient: Incised channel to drowned river estuary
3. Role of floodplains vs human encroachment
4. Water quality and ecosystems of black-water streams

WORKSHOP #2 HANDOUTS

1. Agenda and Info (front and back)
2. Roanoke-Chowan River drainage basins
3. Bertie Co. Lidar with highways and towns--but no named water bodies or hubs
4. Cashie River Lidar map and topographic river profile
5. Close up of Windsor Lidar with no streets
6. Close up of Windsor Lidar with streets
7. Roanoke River water gauges—normal
8. Roanoke River water gauges—flood
9. Storm surge teeter-totter diagram—Albemarle Sound
10. Flood maps of Windsor
11. Sea-level rise maps of Cashie River