

FROM RIVERS TO SOUNDS IN THE BERTIE WATER CRESCENT

AN EARTH & ENVIRONMENTAL SCIENCE PROGRAM THAT FOLLOWS THE WATER

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

www.nclandofwater.org & www.atimeforscience.org

WORKSHOP 4: FEBRUARY 28, 2019

FIELD TRIP CONCEPTS AND QUESTIONS FOR THE CASHIE RIVER SYSTEM

Characteristics, dynamics, & main concepts of a world-class, black-water tributary river system.

1. Cashie River Basin: trunk river and tributary streams
2. Cashie River Gradient: upstream incised channel to downstream drowned river estuary
3. Role of floodplains vs human encroachment
4. Water quality and ecosystems of black-water streams

STOP 1. SCHOOL HOUSE ROAD.

- a. What is the approximate elevation of the Cashie River surface? _____
- b. Estimate the width of primary river channel (relative to a 100 yd football field)?

- c. Using a small stick measure the flow rate (estimated feet/10 seconds) in the main channel.

- d. Describe the width and topography of the floodplain (relative to a 100 yd football field).

- e. Types of trees in the floodplain (upland pine-oak/swamp cypress-gum). _____
- f. Color of water _____
- g. List direct sources of runoff pollution. _____
- h. Describe the human encroachment _____

STOP 2. HOGGARDS MILL ROAD.

- a. What is the approximate elevation of the Cashie River surface? _____
- b. Estimate the width of primary river channel (relative to a 100 yd football field)?

- c. Using a small stick measure the flow rate (estimated feet/10 seconds) in the main channel.

- d. Describe the width and topography of the floodplain (relative to a 100 yd football field).

- e. Types of trees in the floodplain (upland pine-oak/swamp cypress-gum). _____
- f. Color of water _____

g. List direct sources of runoff pollution. _____

h. Describe the human encroachment _____

STOP 3. DOWNTOWN WINDSOR.

a. What is the approximate elevation of the Cashie River surface? _____

b. Estimate the width of primary river channel (relative to a 100 yd football field)?

c. Using a small stick measure the flow rate (estimated feet/10 seconds) in the main channel.

d. Describe the width and topography of the floodplain (relative to a 100 yd football field).

e. Types of trees in the floodplain (upland pine-oak/swamp cypress-gum). _____

f. Color of water _____

g. List direct sources of runoff pollution. _____

h. Describe the human encroachment _____

STOP 4. TREE HOUSE VILLAGE.

a. What is the approximate elevation of the Cashie River surface? _____

b. Estimate the width of primary river channel (relative to a 100 yd football field)?

c. Using a small stick measure the flow rate (estimated feet/10 seconds) in the main channel.

d. Describe the width and topography of the floodplain (relative to a 100 yd football field).

e. Types of trees in the floodplain (upland pine-oak/swamp cypress-gum). _____

f. Color of water _____

g. List direct sources of runoff pollution. _____

h. Describe the human encroachment _____

STOP 5. BOARDWALK AND ROANOKE-CASHIE RIVER CENTER.

a. What is the approximate elevation of the Cashie River surface? _____

b. Estimate the width of primary river channel (relative to a 100 yd football field)?

c. Using a small stick measure the flow rate (estimated feet/10 seconds) in the main channel.

d. Describe the width and topography of the floodplain (relative to a 100 yd football field).

e. Types of trees in the floodplain (upland pine-oak/swamp cypress-gum). _____

f. Color of water _____

g. List direct sources of runoff pollution. _____

h. Describe the human encroachment _____