



Upper Okatie River Focused Fecal Coliform Bacteria Assessment Bureau of Water Aquatic Sciences Program

Purpose

To investigate potential sources of elevated concentrations of fecal coliform bacteria found in earlier samples collected by Beaufort County.

Assessment Area

14 sample Locations

- 12 Base sites – both dry and wet events
- Two (2) additional wet event sites, drainage ditch with no flow observed in dry weather but may flow following rain

Design

One (1) dry weather sampling event

- At least three consecutive days of no precipitation

One (1) wet weather sampling event

- 24-48 hours after a rain event of 0.5 inch or greater

All samples will be collected during ebbing tide.

The following parameters will be analyzed at each location for each sampling event:

- Fecal coliform bacteria (via Shellfish Sanitation Program method)
- *Escherichia coli*
- *Enterococcus spp.*
- Ammonia Nitrogen
- Total Kjeldahl Nitrogen
- Nitrate & Nitrite Nitrogen
- Total Phosphorus

The following parameters will be measured instantaneously at the time of sample collection:

- Dissolved oxygen
- pH
- Temperature
- Conductivity
- Salinity (via calculation using water temperature and conductivity data)
- Tidal stage (e.g., $\frac{1}{4}$ ebb; $\frac{1}{2}$ ebb; $\frac{3}{4}$ ebb), time and weather will be recorded