

## Hydrology - USGS/SCWRC Report 4

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### A Reconnaissance of the Winyah Bay Estuarine Zone, South Carolina

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#### ABSTRACT

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The Winyah Bay estuarine zone in this report consists of Winyah Bay, the Black River estuary, the Pee Dee River estuary and the Waccamaw River estuary. The specific conductance of the Winyah Bay estuarine zone is related to tides and fresh-water inflow. A specific conductance of 800 micromhos has been set as the boundary of interface between fresh and salt water. The fresh water upstream from the salt-water interface is of suitable chemical quality for most purposes, as shown in the tables of the chemical and physical characteristics of the fresh-water inflow.

The location of the salt-water interface normally varies about 4 miles between high and low tides. At high tide during periods when fresh-water inflow is 3000 cfs (cubic feet per second) or less, the front moves about 16 miles upstream from mile 0.0 of the Waccamaw and Pee Dee Rivers. The interface penetrates to about 5 miles above mile 0.0 of those rivers under average conditions of fresh-water inflow (15,000 cfs) and tide.

Copies of this report are available in the SCDNR's Columbia office.