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A Reconnaissance of the Hydrology of the Intracoastal Waterway from Bucksport to Little River Inlet, South Carolina

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ABSTRACT

Some of the physical and chemical characteristics of the Intracoastal Waterway (ICWW) between Bucksport and Little River Inlet have been related to tidal conditions and freshwater inflow; also the suitability of the water for use has been considered. Dye tracing techniques have been used to determine the time-of-travel from mile 375 where the Waccamaw River enters the ICWW to Little River Inlet below mile 342.

Fresh surface-water flow is contributed only by one major tributary, the Waccamaw River, which divides at mile 375, with two-thirds flowing southward. The one-third that flows northward takes about 6 days to reach Little River Inlet. The position of the saltwater interface at high tide, the ICWW is largely controlled by the portion of the Waccamaw River flow that goes northward and is itself probably governed by the amount of backwater caused by the Pee Dee River through Bull Creek.

The interface at high-slack tide changes position by only a few miles between low and high freshwater inflow, usually remaining within 6 to 10 miles of Little River Inlet. The reconnaissance indicates that the water above the interface is probably of good quality and suitable for most uses.

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