

FerryMon

Ferry-based monitoring of water quality in North Carolina

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Did you know that ferries are used to monitor water quality?

NCDOT ferries that cross the Neuse River/ Pamlico Sound estuary – the M/V CARTERET and the M/V FLOYD J. LUPTON – are continually collecting water quality data as part of a unique program called "FerryMon". These ferries are keeping a pulse on the health of the nation's second-largest estuary and North Carolina's most important fisheries and recreational resource via automated water quality monitoring systems, as illustrated below.

- The M/V CARTERET runs from Cedar Island to Ocracoke where it crosses the southern Pamlico Sound and Ocracoke Inlet, a major exchange point with the Atlantic Ocean. This ferry also covers the Swan Quarter to Ocracoke route, traversing the central Pamlico Sound.
- The M/V FLOYD J. LUPTON makes 40 crossings a day along the Neuse River between Cherry Branch and Minnesott Beach from 5 a.m. to 1 a.m. The Neuse River is a major water and nutrient input source for Pamlico Sound and is a representative mid-estuarine location that has experienced the effects of excessive nutrient inputs and a decline in water quality.

Once samples are collected, data is downloaded via wireless connection to the UNC-Chapel Hill marine laboratory, where it is processed and made available to state and federal environmental and fisheries agencies, educational institutions and public and private outreach sources. Information is used to determine water quality effects of events such as storms, hurricanes, nutrient and pollution discharge and to establish a database which can monitor water quality status and trends. Most importantly, FerryMon data is used to determine the essential ingredients for long-term environmental management and protection of Pamlico Sound's precious resources.

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