

Real-Time Water Quality Monitoring in New Jersey Estuaries

The Urban Coast Institute has implemented an area estuarine water quality monitoring network at eight locations in the northern and central estuaries of New Jersey with the deployment of automated, near real-time water quality monitoring instruments.

A network of automated water quality sensors in important estuarine waters of the state will allow scientists to better understand these ecosystems and discern the links between water quality, biological activity, and stress-induced events such as, fish kills, harmful algae blooms, over-nutrification and low dissolved oxygen.

Continuous monitoring of our water quality conditions using near real-time data collection techniques eliminates the need for frequent trips to monitoring sites. This benefits scientists and managers by allowing them to track environmental conditions at any given moment, and respond to sporadic events as they happen. This allows for more accurate planning and decision making.



Find more information at:

www.monmouth.edu/uci/water-quality-ecosystem-health/ www.nj.gov/dep/bmw/



Data Collection

Readings are taken every 15 minutes and are transmitted once per hour to Monmouth. Parameters include: Temperature, Salinity, pH, Dissolved Oxygen, Chlorophyll, Turbidity and Depth.

Collaboration

- NJDEP Bureau of Marine Water Monitoring
- United States Geological Survey
- Barnegat Bay Partnership
- Stevens Institute of Technology
- Monmouth County Board of Health
- Local and regional watershed management groups

The first station created, Shrewsbury River, Branchport Creek monitoring station officially went online in early October of 2007.

The Urban Coast Institute would like to thank the Environmental Protection Agency Region II for their continued support in establishing the network, the Fairleigh S. Dickinson, Jr. Foundation and the Barnegat Bay Partnership for their continuing support of its operation.

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