

SUPPORTING THE NEEDS FOR INTEGRATED ASSESSMENT OF COASTAL WATERS BY LEVERAGING MONITORING REQUIRED FOR SHELLFISH GROWING WATER CLASSIFICATION

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ABSTRACT

The New Jersey Department of Environmental Protection's Water Monitoring & Standards program annually monitors and evaluates 23 harvest available shellfish growing areas in New Jersey for compliance with the National Shellfish Sanitation Program (NSSP). The growing areas are classified as Approved, Seasonally Approved, Special Restricted and Prohibited for shellfish harvest. As required by the NSSP, the Bureau uses coliform bacteria analysis for determining the harvest classifications. Different sampling strategies are used depending on the factors impacting the growing area. These factors include tide, rainfall and point sources of pollution. In New Jersey, the shellfish program is reviewed annually by the U.S. Food and Drug Administration to determine if the requirements for compliance with the NSSP are met. These requirements include:

1. Shoreline/sanitary surveys
2. Monitoring for marine biotoxins from algal blooms
3. Bacterial water quality samples
4. Land use evaluations
5. Evaluation of marina impacts
6. Evaluation of biological resources

In addition to ensuring a healthy and productive seafood product for the recreational and commercial shellfishermen of the state to harvest, the information provided above was the principal component of New Jersey's 305B/Integrated Assessment of its coastal waters during the 1970s and 1980s. As the need for more measures of ecosystem health became evident, New Jersey added additional parameters to the NSSP monitoring to significantly enhance the parameters being monitored while keeping sample collection costs to a minimum. The NSSP sampling for bacteria was enhanced with the addition of sampling for dissolved oxygen, salinity, suspended solids and nutrients. In recent years, sampling for toxics and remote sensing for algal blooms has further enhanced both the State's assessment of coastal water for public health and for ecosystem health.

KEYWORDS

Marine Water Monitoring, Shellfish, Classification, Source Tracking, National Shellfish Sanitation Program, (NSSP), Rainfall