

## Introduction

Water Monitoring and Standards (WM&S) is the program, in the NJ Department of Environmental Protection (NJDEP), which is responsible for ambient monitoring of the state's fresh, ground and marine waters. This monitoring is performed in accordance with the objectives of the Federal Clean Water Act which are to "restore and maintain the chemical, physical and biological integrity of the Nation's waters". In order to accomplish this, states are expected to develop, adopt and maintain water quality standards which are used in assessments of the quality of the state's waters. These standards and assessments must be based on sound, up-to-date scientific information, including monitoring data. WM&S oversees the operation of the primary water quality monitoring networks for the State of New Jersey.

The mission of WM&S is the continued development and implementation of appropriate water monitoring programs using innovative approaches for the design, collection, measurement, storage, retrieval, assessment and dissemination of water quality data. The information generated from these water quality monitoring networks is used for multiple purposes including:

- ◆ evaluating water quality status and trends
- ◆ classifying waters, including shellfish water quality
- ◆ assessing and ranking chemical and biological waterbody impairments
- ◆ development of Total Maximum Daily Loads (TMDLs)
- ◆ informing water quality-sensitive land use
- ◆ identifying pollution sources (both point and non-point) and relative impacts
- ◆ designing and implementing watershed management initiatives
- ◆ determining the effectiveness of pollution control programs
- ◆ responding to environmental emergencies and spills

Monitoring strategies employed by WM&S are comprised of multiple water quality assessment techniques including: habitat assessments, in-stream biological monitoring such as fish population surveys, collection of physical/chemical data on a variety of matrices (surface water, ground water, sediment), identifying pollution sources in the coastal and freshwater environment (discharges, stormwater, marinas), and sediment toxicity testing.

WM&S locates all monitoring stations via the Global Positioning System (GPS), with all locational information being downloaded into NJDEP's Geographic Information System (GIS). All physical/chemical and biological monitoring data collected are stored in the US Environmental Protection Agency's STORET water quality database or the U.S. Geological Survey's NWIS database

The following pages contain information on each of the networks that are maintained by WM&S. Included for each network is a brief description of the network (including, for appropriate networks, the parameters monitored), a map of the sampling site locations, as well as references for the locations of the monitoring results. Additionally, at the end of the report, information is included regarding additional specialized WM&S monitoring capabilities.