

BASINS-NJ Modeling System
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The New Jersey Department of Environmental Protection (NJDEP) has contracted with Tetra Tech, Inc., to customize the original BASINS modeling system for use by the NJDEP staff to assist them in preparing TMDLs within the State of New Jersey. In addition to integrating state-specific data layers such as NJ land use data, watershed management units, 11- and 14-digit watershed boundaries, 305(b) waters, surface water quality standards, and head of tide, the revised system which is called BASINS-NJ v1 allows users to connect to various data sources of ambient water quality monitoring data and NPDES discharge data and retrieve and update the data that came with the BASINS-NJ package. For example, BASINS-NJ system allows users to retrieve data from the USGS NWIS web site and NJDEP in-house STORET (Oracle) database, and append it to the prepackaged water quality data that was mainly obtained from EPA Legacy STORET database. In addition, the users have the capability to append additional water quality data from third party sources by importing files in some specific format. Similarly, BASINS-NJ provides the ability to connect to the NJEMS database to retrieve NPDES data. New assessment and analysis tools were developed for BASINS-NJ to allow users the ability to examine the time series water quality and discharge data in more detail. NJDEP TMDL personnel are currently testing the beta version of the BASINS-NJ system and are in the process of identifying what TMDLs will benefit the most in using the BASINS system. It is apparent that the use of BASINS modeling system will be most appropriate for developing the more complex TMDLs but will also involved a higher level of effort from the staff.