

Watershed Management Area 3 Scope of Work Stream Priority Segment Pequannock River

Background

Watershed Management Area 3 (WMA 3) is located in the northeastern part of New Jersey. Watershed Management Area 3 (WMA 3) includes watersheds that receive water from the Highlands portion of New Jersey. The Pequannock, Wanaque and Ramapo Rivers all flow into the Pompton River. The Pompton River is, in turn, a major tributary to the Upper Passaic River. WMA 3 contains some of the State's major water supply reservoir systems including the Wanaque Reservoir, the largest surface water reservoir in New Jersey. There are four watersheds in WMA 3: Pompton, Ramapo, Pequannock and Wanaque River Watersheds. WMA 3 lies mostly in Passaic County but also includes parts of Bergen, Morris, and Sussex Counties. The following municipalities are included in WMA 3:

As part of the initial Watershed Management Planning process a Characterization and Assessment Report for WMA 3 was provided under a contract with North Jersey District Water Supply Commission. The Division of Watershed Management is now poised to build on this broad characterization with an in-depth Characterization and Watershed Plan on a priority stream segment in each of the State's 20 Watershed Management Areas. The Pequannock River from the Pequannock River above Pacock to the Pequannock River at Butler has been endorsed by the WMA 3 PAC as a high priority waterbody. A temperature TMDL is pending early 2004 and data and analyses developed during this study will contribute to the development of both short-term and long-term management strategies within the document. In addition the Macopin River at Macopin Reservoir has been identified on the 2004 Integrated List as impaired for Fecal Coliform.

PROJECT DESCRIPTION

The objective of this project is to provide an in-depth characterization of the current conditions within the identified stream segment, and an evaluation and assessment of the findings of that characterization to evaluate and assess the short-term and long-term management measures that will be required to allow the stream to achieve and maintain full attainment of its designated uses. The Pequannock River is a trout production Category 1 waterway within the designated stream segment. This stream segment is impaired for temperature and a Temperature TMDL is anticipated. This is a very complex system due to a series of five reservoirs for water supply, and as such requires in-depth monitoring. There is significant remediation efforts and characterization underway, and this project will mesh with other ongoing projects and efforts. A Stream Characterization Report, including cost-benefit analyses, temperature and flow monitoring data, bacteriological analyses for fecal coliform, identification of data gaps, and recommendations for further work and actions will be the principal deliverable. Achieving clean and plentiful water is a goal that requires balancing overall vision with site-specific individual characterizations. This project will provide a culmination of the vision of the WMA 3 PAC, NJDEP and other stakeholders in the Pequannock River watershed with the detailed analyses required to provide for actual measurable changes in water quality.

TASK

Task 1: Review of Available Data for defined segment

- a. water quality and quantity records
- b. land use summary analysis from existing GIS
- c. TMDL issues including Fecal Coliform

Task 2: Design and execution of water quality monitoring program to fill in data gaps needed to complete a characterization

- a. Chemical
- b. Biological
- c. Physical, including flow and temperature data

Task 3: Development of Stream Segment Management Plan, including all available data, monitoring and modeling results. The overall components of the Stream Characterization Report will include:

- a. Measurable Goals
- b. Applicable BMPs
- c. Applicable Model Ordinance
- d. Mitigation Approaches used elsewhere, and their success.
- e. Timeline
- f. Identification Potential Funding sources

Deliverables

Task	Deliverable	Timeline	
Task 1: Review of Available Data for defined segment	Report characterizing available data will be provided.	1 st Quarter	
Task 2: Design and execution of water quality monitoring program to fill in data gaps needed to complete a characterization	Monitoring report, including raw data available electronically; Fecal coliform sampling at Macopin River at Macopin Dam; Temperature monitoring of the Pequannock River above and below all impoundments and above/below all significant tributaries from June –September, including Pacock Brook, Macopin River and Clinton Brook; data will be analyzed along with available flow rate and rainfall data	2 nd & 3 rd quarter	
Task 3: Development of Stream Segment Management Plan, including all available data, monitoring and modeling results.	The overall components of the Stream Characterization Report will include: <ul style="list-style-type: none"> Measurable Goals Applicable BMPs Applicable Model Ordinance Mitigation Approaches used elsewhere, and their success. Timeline Identification Potential Funding sources 	3 rd & 4 th Quarters	

Scope of Work
WMA 3

Priority Stream Segment
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