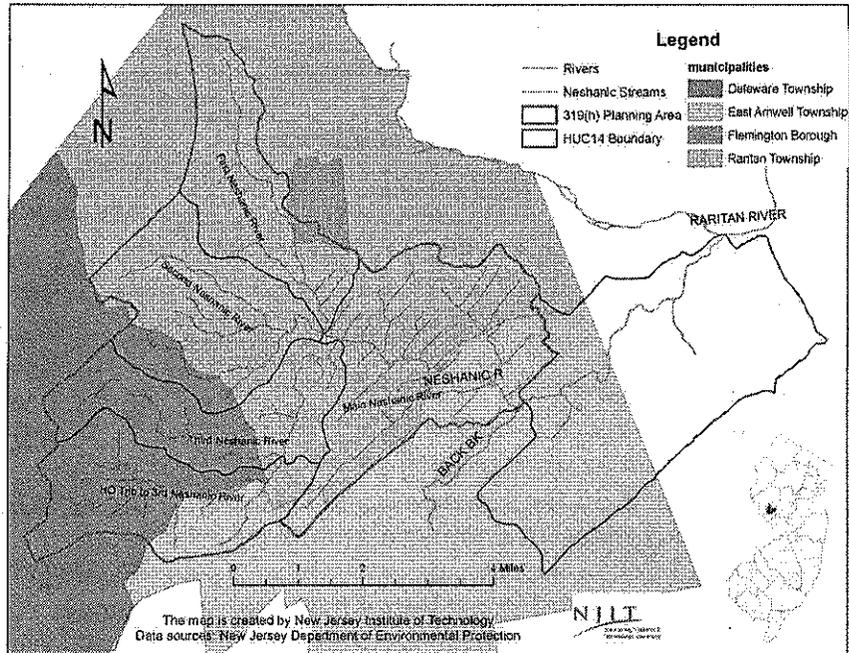


Neshanic River Watershed Restoration Plan

The Neshanic River watershed is part of the Raritan River Basin in Central New Jersey. It is located in Hunterdon County and encompasses Raritan, Delaware, and East Amwell Townships and Flemington Borough. The Neshanic River Watershed Restoration Plan focuses on the 31 square mile upper part of the Neshanic River watershed and includes Walnut Brook, First, Second and Third Neshanic River and the Neshanic River main branch immediately above the Back Brook confluence with the Neshanic River.



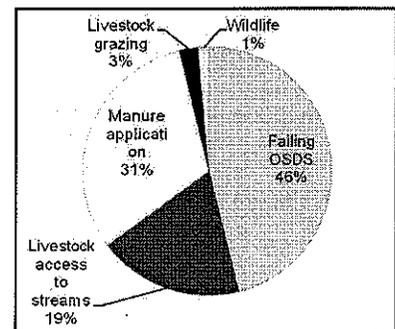
Purpose of the Plan

The Neshanic River Watershed Restoration Plan details a 10-year implementation schedule of agricultural, stormwater and onsite wastewater disposal system (OSDS) management measures to restore watershed hydrology and achieve

- Nine percent of reduction in total suspended solids (TSS);
- Forty-nine percent of reduction in total phosphorus (TP); and
- Eighty-nine percent of reduction in pathogens including fecal coliform and E. coli.

Pollution Sources and Causes

Urban development and agriculture are the major causes of water quality impairment in the watershed. The primary sources of TSS are streams with eroded bank and deposited sediments, croplands, urban lands, and pasture and hay fields. Croplands, urban lands, pasture and hay fields are also the major sources of TP. Fecal coliform and E. coli primarily come from failed OSDSs, manure application in croplands, and livestock with direct access to streams.



Pathogen Source

Acknowledgement

The funding for the project is provided by the Office of Policy Implementation and Watershed Restoration at New Jersey Department of Environmental Protection through the Clean Water Act Section 319(h) program (Grant Contract #RP06-068). Additional in-kind contributions to the project are provided by New Jersey Institute of Technology, Hunterdon County Soil Conservation District and New Jersey Water Supply Authority.

Management Measures

The management measures included in the plan consist of 8 agricultural best management practices (BMPs), 4 stormwater BMPs, and 2 OSDS management measures:

- Cover crops
- Prescribed grazing
- Stream access control to livestock
- Control farming
- Nutrient management in croplands
- Conservation buffers in agricultural lands
- Livestock waste storage and composting structure
- Manure application incorporation technology
- Rain gardens
- Roadside ditch retrofitting
- Detention basin retrofitting
- Vegetative buffers in developed lands
- OSDS Inspection and maintenance
- Failed OSDS retrofitting

The implementation of the selected management measures would achieve the attainment in TSS in 5 years and in TP and pathogens in 10 years. The implementation cost is estimated at \$14.6 million, which includes \$1.5 million in outreach and technical assistance cost, \$10.9 in BMP installation and \$2.2 million in BMP maintenance.

Funding Sources

The funding sources for implementing the selected management measures include:

- The farmland conservation programs in the U.S. Farm Bill
- The Clean Water Act 319(h) grants
- The U.S. Fish and Wildlife Service
- The U.S. Environmental Protection Agency

Alternative funding sources can be developed to finance watershed restoration. The examples may include:

- Stormwater mitigation fund
- Stormwater utility
- Water quality trading
- Ecosystem service market
- Low or no interest loans for OSDS retrofitting

Stakeholders and Stewardship

As a resident, farmer and/or local business, you are not only the stakeholder but also the steward of the watershed. The success of the plan depends on your awareness and understanding of water quality problems in the watershed and your willingness to take personal actions in solving these problems. Be a responsible steward and a part of the solution!

Project Partners

New Jersey Department of Environmental Protection

New Jersey Institute of Technology

Rutgers Cooperative Extension

North Jersey Resource Conservation & Development Council

Hunterdon County Soil Conservation District

South Branch Watershed Association

New Jersey Water Supply Authority

Natural Resources Conservation Service

Raritan Township

East Amwell Township

Delaware Township

Flemington Borough

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