

NJIT submits Neshanic River watershed clean-up plan

May 10 2012

NJIT Associate Professor Zeyuan Qiu has authored and submitted a plan to restore the Neshanic River Watershed to the NJ Department of Environmental Protection (DEP). Qiu is in NJIT's department of chemistry and environmental science.

The Neshanic [River Watershed](#) in Hunterdon County encompasses Raritan, Delaware and East Amwell townships and Flemington Borough and is a headwater watershed of the Raritan River Basin in Central New Jersey. The Neshanic River is one of the most polluted headwater streams in the Raritan River Basin with impaired aquatic life and nonpoint source pollution from bacteria, phosphorus and total suspended solids. Of concern, too, is the river's increasing no/low stream flow during late summer.

The plan suggests necessary management measures to achieve the required reduction in pathogens and attain [water quality](#) standards for total phosphorus and total suspended solids. It would assess the potential for restoring the river's base flow and supporting aquatic life in the river.

Management measures would cost \$14.6 million and would be spread over a 10-year implementation horizon. The target within the first two years would be to halt further deterioration of water quality. Within the first five years, water quality should improve and within a decade, water quality should be restored. The price tag includes installing and maintaining management practices, plus programs to educate and motivate farmers, homeowners and other stakeholders. Federal programs

might offer support.

"But tremendous financing challenges remain," said Qiu, who has several funding ideas. They include a storm water mitigation fund, storm water utility and low or no- interest homeowner loans for individuals who must retrofit their on-site wastewater treatment systems. Stakeholders may also be asked to share the burden, by maintaining certain practices, once they are installed, he added. For more information, see <http://ims.njit.edu/neshanic/index.html>.

The effort was led by NJIT in collaboration with the Natural Resources Conservation Service of the U.S. Department of Agriculture, NJDEP, New Jersey Water Supply Authority, North Jersey Resource Conservation and Development Council, Rutgers University Cooperative Extension, South Branch Watershed Association and Hunterdon County Soil Conservation District and the municipal governments of Raritan, Delaware and East Amwell townships and Flemington Borough.

Provided by New Jersey Institute of Technology

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