

## **Water Quality Monitoring in the Upper Delaware Scenic and Recreational River**

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### **ABSTRACT**

This project utilized a nested sampling approach to define existing water quality and chemical loads for water-quality parameters for the Upper Delaware Scenic and Recreational River (UPDE). An intensive sampling network was combined with regional surveys of tributary water quality during a range of seasonal and flow conditions and remote sensing and ground-truth measurements of land-use in the tributary and river-reach watersheds. This multi-scale project developed new methods for assessing the impact of specific land uses on water quality. Delaware River load measurements and tributary concentrations were integrated with GIS land-use coverages to produce benchmark conditions for the UPDE waters. The data collected during this project will be used by the Delaware River Basin Commission to establish Special Protection Waters Standards for the UPDE. The methods of integrated land-use and water quality assessment refined and tested by this project will have application wherever terrestrial-aquatic linkages are being assessed.

### **KEYWORDS**

Water quality, land use effects, special protection waters, Delaware River