

Abstract

SPARROW Water-Quality Modeling: Application of the National Hydrography Dataset

Track: Water Resources

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The New England SPATIally Referenced Regressions On Watershed Attributes (SPARROW) model is an application of the 1:100,000-scale National Hydrography Dataset (NHD). New England SPARROW is a spatially detailed, regression model that relates phosphorus and nitrogen stream concentrations to pollution sources and watershed characteristics. These statistical relations are then used to predict nutrient loads in unmonitored streams. Watersheds for each NHD reach, were delineated by use of the National Elevation Dataset (NED) and the National Watershed Boundary Dataset. Estimates of stream flow and velocity were assigned to the NHD reaches using the NHD navigation functionality along with NED and other datasets.

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