Partnership Project Reduces Threats to Clean Drinking Water

Pam Davidson, Public Affairs Specialist, April 2011

NRCS and conservation partners are helping farmers in Indiana improve their irrigation systems through a Cooperative Conservation Partnership Initiative project. In three counties in southwest Indiana, farmers use irrigation on over 41,000 acres of land to grow corn, soybeans, and truck crops (such as melons). Much of that irrigated land consists of soils formed over sand and gravel deposits along two major rivers, and the ground water table is very shallow in this area of Indiana. Five community water systems and hundreds of private wells draw drinking water in the project area. Nitrates have been detected in water supply wells in the past. Local conservation partners received Environmental Quality Incentives Program funding through the Cooperative Conservation Partnership Initiative to help irrigators improve system efficiencies, reduce water application, and reduce the dangers from leaching.

To date, 22 irrigation systems have been evaluated; and operations are being modified on 2,714 acres. Plans are underway on 24 additional irrigation systems to reduce energy use and over application of chemicals and water. Local Soil and Water Conservation District employees are testing water wells for E.coli, nitrate, and phosphate pollutants.

These system changes will result in many environmental benefits, including the following.

- The risk of aquifer and drinking water contamination by fertilizers and pesticides in the project area will be greatly reduced.
- Reduction of overwatering will decrease the risk of soil erosion.
- Over the five-year life of the project, local Soil and Water Conservation Districts estimate about one-third of all irrigators (about 60) in the project area will participate.
Switching from diesel to efficient electric pumps will reduce energy and exhaust emissions.

The following partners work cooperatively on this project:

- Four Rivers Resource Conservation & Development Council
- Purdue University Cooperative Extension Service
- Soil and Water Conservation Districts (SWCD) of Greene County, Knox County, and Sullivan County
- USDA Natural Resources Conservation Service