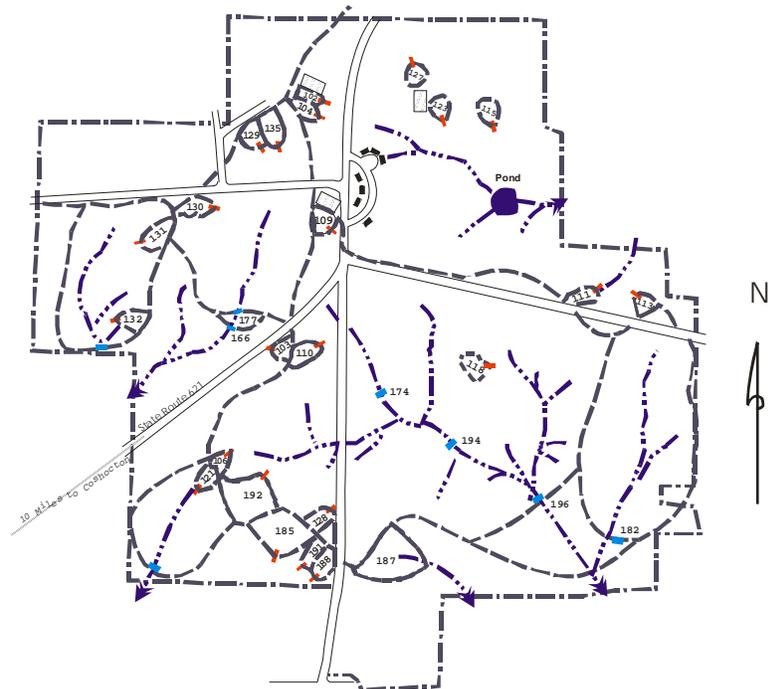


**WATER QUALITY RESEARCH AT THE
NORTH APPALACHIAN EXPERIMENTAL WATERSHED (NAEW)
 COSHOCTON, OHIO
 (A USDA-Agricultural Research Service facility)**



Impacts and Potential of NAEW Research

- The experimental watershed facility at Coshocton has been addressing the agricultural, soil, and water resource needs of the nation, and is recognized nationally and internationally.
- Our *recognized research* has positioned us to investigate *national* areas of environmental concern such as:
 - Energy
 - biofuels
 - coal mining and reclamation
 - Food safety and security by protecting the quality of water resources
 - ground-water and surface-water quality
 - land management effects on runoff and water quality
 - pathogens in runoff
 - pesticides and nutrients in runoff and ground water
 - Beneficial uses of industrial byproducts
 - Flooding
 - impacts of urbanization
 - methods to reduce flood flows
 - precipitation studies
 - Climate change
 - Grazing systems
 - continuous
 - management-intensive
 - Cropping systems
 - Soil carbon and quality as affected by land management
 - Educating future scientists
 - Improving scientific understanding of natural watershed systems



Map of NAEW Facility

Background and Facilities

The *North Appalachian Experimental Watershed* (NAEW) conducts research on ways to manage land to improve water quality, to reduce flood damages due to agricultural and urbanized areas, and to reduce sediment, nutrients, and pathogens and pesticides in water supplies. The NAEW helps develop tools to facilitate decision making for land managers, producers, and industry



- We consist of:
 - A 1050-ac NAEW outdoor laboratory facility operated by the USDA-Agricultural Research Service (ARS) in cooperation with The Ohio State University/OARDC
 - A network of instrumented watersheds, lysimeters, weather stations, and rain gauges for surface- and ground-water hydrology and water-quality studies
 - A natural setting with experimental watersheds ranging in size from 1 to 300 acres
 - A 70-year computerized database of runoff, erosion, climatic conditions, and soil properties
 - Experienced, on-site staff of 12 technicians, 3 PhD scientists, and 2 OSU/Ohio Research and Development Center employees.
- The infrastructure, historic data, and expertise allow for investigation of new national land management priorities using existing scientific infrastructure.

Instrumented Watershed



Flume and Coshocton Wheel



On-site Laboratory