

US EPA ARCHIVE DOCUMENT

# LANDSCAPE INDICATORS FOR PESTICIDES STUDY



## FIELD CREWS BEGIN SAMPLING IN MID-ATLANTIC COASTAL STREAMS



### U.S. ENVIRONMENTAL PROTECTION AGENCY

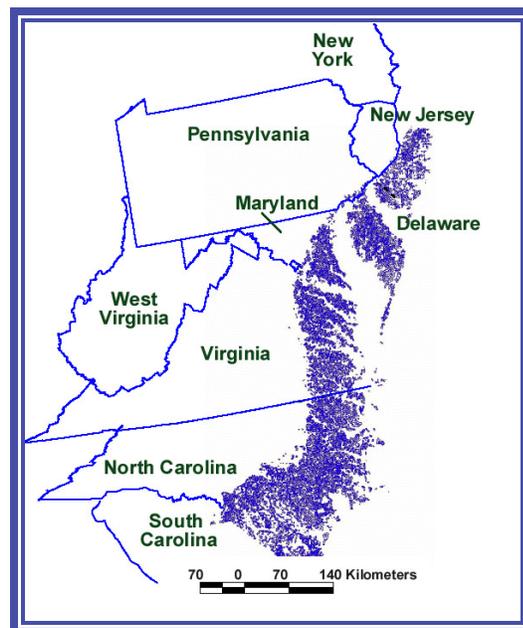
Office of Research & Development  
NATIONAL EXPOSURE RESEARCH LABORATORY  
Environmental Sciences Division  
Las Vegas, Nevada

### U.S. GEOLOGICAL SURVEY

Water Resources Division  
Baltimore District Office  
Baltimore, Maryland

A field study and water sampling effort is underway in the Mid-Atlantic Coastal Plain (area shown at right) as part of a program to determine and improve the ecological health of the United States. The samples will provide important data needed to complete the *Landscape Indicators for Pesticides Study in Mid-Atlantic Coastal Streams*, a joint project by EPA's National Exposure Research Laboratory and the United States Geological Survey.

Approximately 200 watersheds have been chosen for sampling within the coastal plain to provide a range of sites in developed versus undeveloped land cover types. Measurements include pH, specific conductance, alkalinity, major ions (such as calcium, magnesium, sodium, potassium, sulfate, and chloride), nutrients (such as nitrogen and phosphorus), pesticides (chlorpyrifos, atrazine), pesticide metabolites (desethylatrazine), for stream water; physical habitat; and benthos community composition and abundance. (Benthos, or benthic macroinvertebrates, are immature insects such as stonefly and mayfly nymphs, and crayfish, clams, snails, and worms which live on logs and rocks in streams.) The data will be used in developing landscape indicator models to predict nutrient and pesticide concentrations in streams, stream condition, and physical habitat quality; and to explore the importance of hydrologic conditions to these results.



Planning for the *Landscape Indicators for Pesticides Study* began in 1998. The field study will be completed this Spring, 2000, followed by analysis of the sampling data from 2000 to 2003. The resulting landscape models will provide scientists the ability to streamline and prioritize water sampling efforts, and estimate pollutant loadings in streams.

### Contacts: EPA

Ann Pitchford, (702) 798-2366  
Bhagya Subramanian, (513) 569-7349

### U.S. Geological Survey

Judith Denver, (302) 734-2506 extension 229  
Scott Ator, (410) 238-4264

Visit our website [www.epa.gov/esd/](http://www.epa.gov/esd/) for updates beginning in April, 2000.