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Environmental Monitoring and
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Research Triangle Park, NC 27711

Research and Development

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Project Summary

Environmental Monitoring and Assessment Program

Chesapeake Bay Watershed Pilot Project

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The major objective of the Environmental Monitoring and Assessment Program (EMAP) Chesapeake Bay Watershed Pilot Project was the development and testing of methods for producing detailed digital land cover and land use data over large geographic areas using commercially available satellite imagery. The land cover/use map generated by this project is intended to be used by EMAP and by the Chesapeake Bay Program Offices non-point source water quality model and will replace the currently used and outdated map. This project was also intended to complement other similar remote sensing data products being generated for the Chesapeake Bay area. These include the National Oceanic and Atmospheric Administration (NOAA) Coastal Change Analysis Program (C-CAP) Chesapeake Bay Project, and efforts by both the states of Maryland and Virginia to map Bay area resources

This Project Summary was developed by EPA's Environmental Monitoring and Assessment Program Center, Research Triangle Park, NC, to announce key findings of the research project that is fully documented in a separate report of the same title (see Project Report ordering information at back).

Results of this and similar projects have led to the formation of the Multi-Resolution Land Characteristics (MRLC) consortium, an interagency cooperative effort established to pool expertise and defray costs of production of a satellite-based digital land cover/use database for the conterminous United States. The MRLC consists of representatives from U.S. Geological Survey (USGS) EROS Data Center, USGS National Water Quality Assessment Program, NOAA C-CAP, EPA North American Landscape Characterization Project, and EMAP Landscape Characterization. This project will, therefore, serve as a model for large-scale projects using remote sensing for environmental monitoring.

A significant accomplishment of this project was the development and implementation of tracking forms and instruction guides developed as part of the quality assurance/quality control procedures. From the beginning of this project tracking forms traced all procedures performed on the data. The tracking forms allowed for easy handling of the large number of thematic mapping scenes. The forms facilitated monitoring the completion of each step in the process for each data subset, comparison of results between data subsets, backup and retrieval of data, and tracing of errors. The instruction guides helped the analysts perform consistent analyses on all of the image subsets by providing step-by-step operating instructions.

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The complete report, entitled "Environmental Monitoring and Assessment Program: Chesapeake Bay Watershed Pilot Project," (Order No. PB95-100061; Cost: $27.00; subject to change) will be available only from:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Telephone: 703-487-4650

The EPA Project Officer can be contacted at:

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