



*U.S. Department of the Interior
National Park Service
Natural Resource Information Division*



Base Cartographic Data

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The Natural Resource Inventory and Monitoring (I&M) Program was established to gather information and develop techniques for maintaining the integrity of the ecological communities in the approximately 250 National Park System units with significant natural resources. The details of the program are outlined in *Natural Resource Inventory and Monitoring in National Parks*, available from the address listed below.

Since its inception in 1992, the I&M Program has funded mapping of vegetation, soils, and geologic features; collection of base cartographic data; and compilation of automated park-based bibliographic and water-resource-related databases; initiation of several prototype monitoring programs; and development of data management standards and protocols. The fact sheet series of the Natural Resource Information Division provides updated information on the progress in each of these areas.

Base Cartographic Data

The systematic monitoring of natural resources requires park-specific maps of surface features and boundaries. Basic cartographic products for each park are at a 1:24,000 scale in digital format that is suitable for import into a geographic information system (GIS). Specifically, the basic cartographic data products are:

Digital elevation models - georeferenced arrays of regularly spaced elevations or three-dimensional models of the Earth's surface

Digital raster graphics - scanned and georeferenced images of USGS (United States Geological Survey) topographic maps

Digital line graphs - separate layers or coverage of linear features on topographic maps, i.e., hydrography (water), hypsography (contour lines), political boundaries, and transportation features such as railways, oil pipelines, and roads

Digital orthophotos - map-view digital images of aerial photographs from which displacements caused by the camera and the terrain were removed.



Partnerships

The cartographic products are made possible by a cost-sharing arrangement among the National Park Service, the U. S. Geological Survey, and other federal agencies.

Program Status

Since 1993, complete or partial base cartographic data have been acquired for 130 parks with significant natural resources. Acquisition of data for the remaining such parks is expected by the year 2000.

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