



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



## **Baseline Water Quality Status and Trends (Updated)**

October 1997

97-34

The Natural Resource Inventory and Monitoring (I&M) Program was established to help with preventing the loss or impairment of significant natural resources in more than 250 of the 376 units of the National Park System<sup>1</sup>. Many natural resources in the system are subjected to unfavorable influences from a variety of sources, for example, air and water pollution, urban encroachment, and excessive visitation. Left unchecked, such effects can threaten the very existence of many natural communities in the units.

The principal functions of the I&M Program are the gathering of information about the resources and the development of techniques for monitoring the ecological communities in the National Park System. Ultimately, the inventory and monitoring of natural resources will become integral parts of park planning, operation and maintenance, visitor protection, and interpretation. They will enhance the preservation and protection of natural resources and improve the stewardship of natural resources by the National Park Service.

The detection of changes and the quantification of trends in the conditions of natural resources are imperative for the identification of links between changes in resource conditions and the causes of changes and for the elimination or mitigation of such causes. Inventory and monitoring provide important feedback between natural resource conditions and management

and trigger specific management and evaluation of managerial effectiveness. A basic requirement of documentation is comprehensive geologic mapping.

### **Baseline Water Quality Status and Trends**

Baseline Water Quality Data Inventory and Analysis Reports are being prepared for all units of the National Park System with significant water resources. The reports provide parks with complete inventories of all water quality data collected in and near the parks and stored in the STORET national water quality database of the US Environmental Protection Agency (EPA). Each report features descriptive statistics and graphics of central tendencies and trends in annual, seasonal, and period-of-record water quality. Also provided are results from comparisons of water quality in parks with relevant national water quality criteria by EPA and Level I water quality parameters from the NPS-75 Guideline. The entire report (text, tables, graphics) and all databases (water quality parameter data; hydrography; water quality station; water gage; National Pollutant Discharge Elimination System permit; drinking water intake; and water impoundment locations) are provided in analog and digital format to encourage additional analysis and incorporation into park geographic information systems. Copies of Baseline Water Quality Data Inventory and Analysis Reports are available from the National Technical Information Service of the Department of Commerce and from the NPS Technical Information Center.

### **Background**

Good water quality in the parks is imperative to the persistence of natural aquatic communities and to the consumptive and recreational use of water by visitors. Ensuring the integrity of water quality in parks, therefore, is fundamental to the mission of the National Park Service. However, a recent report by the General Accounting Office identified water quality impairment as one of the greatest threats to park resources. As a consequence, parks frequently collect water quality data. Sound science and public policy, however, require an assessment of previously collected data before the collection of new data. The assessment can improve the design of further collections, avoid duplication, and facilitate comparisons with baseline data. To assist parks with evaluating water quality, the Inventory and Monitoring Program in concert with the NPS Water Resources Division initiated the *Baseline Water Quality Status and Trends Project* in 1993.

### **Partnerships**

Implementation of the Baseline Water Quality Status and Trends Project is a joint public-private sector initiative involving Horizon Systems Inc.; the Colorado State University; the NPS Inventory and Monitoring Program and Water Resources Division; the EPA; and numerous other federal, state, and local government agencies that store water quality data in the EPA STORET database.

### **Program Status**

As of November 1997, 104 Baseline Water Quality Data Inventory and Analysis Reports were completed and

<sup>1</sup> National parks and other entities of the National Park Service such as national monuments, national rivers, wild and scenic riverways, national scenic trails, and others are called *units* and collectively constitute the *National Park System*.

sent to parks. Reports for all parks should be completed by late 1999.

**For further information contact:**  
Dr. Gary Williams, Manager

Inventory and Monitoring Program  
National Park Service  
1201 Oak Ridge Drive, Suite 350  
Fort Collins, CO 80525  
Tel: (970) 225-3539  
e-mail: Gary\_Williams@nps.gov

You may also consult our worldwide web page at:  
<http://www.aqd.nps.gov/facts>

