



The National Park Service

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NATIONAL WATER QUALITY ASSESSMENT PROGRAM IN NATIONAL PARKS (UPDATED)

by Barry Long, Water Resources Division

The National Park Service (NPS) has been cooperating with the National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey (USGS) to address a multitude of serious water issues in national parks. As a result, a pilot NPS-NAWQA Program has been conducted in some parks. The objectives of NPS in forming a partnership with the NAWQA Program are (1) the establishment of a cooperative partnership with a national, institutionalized water-quality program; (2) an influence on monitoring to ensure that the needs of parks for specific information on water issues are met; (3) the confirmation that the collaboration between the two agencies is efficient and cost-effective in meeting the water-quality monitoring responsibilities of both agencies; and (4) an indication of the effectiveness of full implementation of the program in parks nationwide. The partnership is particularly desirable not only because it is a collaboration between sister agencies but because it directly supports the Inventory and Monitoring Program of NPS.

Background

NAWQA is a long-term program of the USGS that integrates intensive monitoring with more limited follow-up studies in selected large watersheds throughout the United States. The studies provide consistent and scientifically sound information for managing water resources. The greater objectives for the NAWQA Program are the assessment of the status and trends in the quality of the nation's groundwater and surface water and the improvement of an understanding of the primary natural and human influences on water quality. NPS identified parks in the NAWQA study units¹, elicited the participation of park personnel in NAWQA meetings, and encouraged priority selection of study locations in parks with major water-quality issues.

¹A study unit is a major hydrologic system under study and is geographically defined by a combination of groundwater and surface-water features and usually encompasses more than 10,000 square kilometers.

In 1994, NPS and USGS began a collaboration to increase NAWQA work in parks. The focus has been on monitoring that is of high interest to NPS but would otherwise not have been included in the study design of the NAWQA Program. The two agencies signed a formal memorandum of understanding to coordinate the integration of national parks into the NAWQA Program. In 1995, a pilot NPS-NAWQA monitoring program was initiated to foster this partnership. The technical expertise, national protocols, laboratory and field quality control, and data management and analysis capabilities of the USGS have been used to produce information that can be applied in management of water resources in parks.

Program Status

During 1995 through 1998, each agency spent about \$200,000 per year on monitoring park-specific water resources in 15 study units of the NAWQA Program and in 22 parks. Collaborative water-quality monitoring, including biological assessments,

were conducted in Denali , Grand Teton , Katmai , Lake Clark , Olympic , Rocky Mountain , Yellowstone, and Yosemite national parks; Bighorn Canyon, Chattahoochee River, Curecanti, Gauley River, and Lake Mead national recreation areas; Buffalo and New River Gorge national rivers; Bluestone, Ozark, and Saint Croix national scenic riverways; Buffalo and New River Gorge national rivers; Obed Wild and Scenic River; and Bandelier, Black Canyon of the Gunnison, and Congaree Swamp national monuments.

NPS funds for most of the monitoring in the pilot program were transferred to the USGS by an interagency agreement. All data are available to NPS in national databases, and reports that include data from parks have been published by USGS. The Water Resources Division intends to continue supporting the NAWQA Program in national parks and has targeted funds for that purpose. However, further collaborations with the NAWQA Program depend on future budgets.

Program Change

Based upon the success of the NPS-NAWQA Program, a detailed implementation plan for a full-scale NPS-USGS water quality assessment partnership was developed as part of the Clean Water Action Plan. The full pro-

gram, as designed, would provide for a mix of intensive and synoptic assessments and long-term monitoring studies in as many as 100 NPS units.



**Merced River, Yosemite National Park
Joaquin-Tulare Basins**

Photograph by B. Long

At this time, a first year implementation plan consists of 35 projects in parks that were selected by an interagency work group. Funding for the expanded collaborative NPS-USGS Program was proposed and approved as part of the fiscal year 1999 budget.

For further information contact:

Gary Rosenlieb
Water Resources Division
National Park Service
1201 Oak Ridge Drive, Suite 250
Fort Collins, Colorado 80525

Tel: (970) 225-3518
gary_rosenlieb@nps.gov

Barry Long
Water Resources Division
National Park Service
1201 Oak Ridge Drive, Suite 250
Fort Collins, Colorado 80525
Tel: (970) 225-3519
barry_long@nps.gov

Bill Jackson
Water Resources Division
National Park Service
1201 Oak Ridge Drive
Suite 250
Fort Collins, Colorado 80525
Tel: (970) 225-3503
bill_jackson@nps.gov

Sharon Kliwinski
National Park Service
P.O. Box 37127
Washington, D.C., 20013
Tel: (202) 208-4639
sharon_kliwinski@nps.gov

Web pages about water resources in the National Park System are at <http://www.nature.nps.gov/wrd>.

The URL for viewing more information about water quality is <http://www.nature.nps.gov/wrd/wrdnaqua.htm>.