

Water Resources Division

The WRD has published a report, "Outstanding National Resource Waters: A Resource Management Tool," by Barbara West, outlining the general provisions of the EPA's antidegradation policy, with special attention to Outstanding National Resources Waters (ONRW), a program designed to protect high quality and other special or unique waters. The report is

directed toward park superintendents and resource managers and explains how state ONRW designations can be used to complement NPS resource management strategies. Because all NPS units are subject to state water pollution control laws and regulations, the report highlights how NPS can use state processes to protect NPS water and water-dependent resources.

Since each state approaches antidegradation in a different way, the report provides a state-by-state listing of the regulatory agency and a discussion of each state's ONRW program general provisions.

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A hydrologic report, "Initial Calibration and Ratings for Parshall Flumes 1 and 3 at Rattlesnake Springs, Carlsbad Caverns NP, was prepared by Gary Rosenlieb, Water Operations Branch. Rick Inglis of the same branch prepared "Preliminary Hydrologic Measurements: Taft Creek Groundwater Study, Olympic NP." Both reports are available from the WRD.

WRD Chief Stan Ponce delivered the keynote address, "Management of Large Reservoirs within NPS Units: Issues and Concerns," to the annual meeting of the North American Lake Management Society in Austin, TX, Nov. 7, 1989.

Nancy Driver of the Water Operations Branch made an invited presentation in November to the USGS National Symposium on Water Quality in Orlando, FL. Her published abstract, "NPS Water Quality Program," is available from WRD.

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The National Park Service is currently working on a Watershed Management Plan to address the periodic flooding of Divide Creek at the St. Mary developed area in Glacier NP. The study will be conducted in four phases. The Water Resource Division will conduct the first phase which consists of an analysis of the geophysical conditions. Concurrently, the park staff will perform the second phase which includes planning considerations of mitigative alternatives. The remaining study phases will utilize input from the first two studies to address engineering designs and specifications for implementation of flood mitigation. An inter-

agency work group has been formed consisting of various subject matter experts needed to assess the natural characteristics of the watershed and to make recommendations on actions needed to protect life and property in the developed area.

The St. Mary developed area is located on an alluvial fan formed by constant channel deposition and related meandering of Divide Creek. There have been at least six floods in this area during the past 50 years. Two of these floods inundated the developed area and caused considerable damage to property. One person was killed near the highway that accesses this area.

In recent years, the park has been forced to remove channel debris and deposition in order to prevent flood events from impacting the developed area. These necessary actions have sometimes caused the park to be out of compliance with requirements of Section 404 of the Clean Water Act. The Corps of Engineers and the state of Montana have requested that a Watershed Management Plan be developed prior to issuing new permits in this area.

The study results should serve as a guide for the management of this complex and dynamic system.