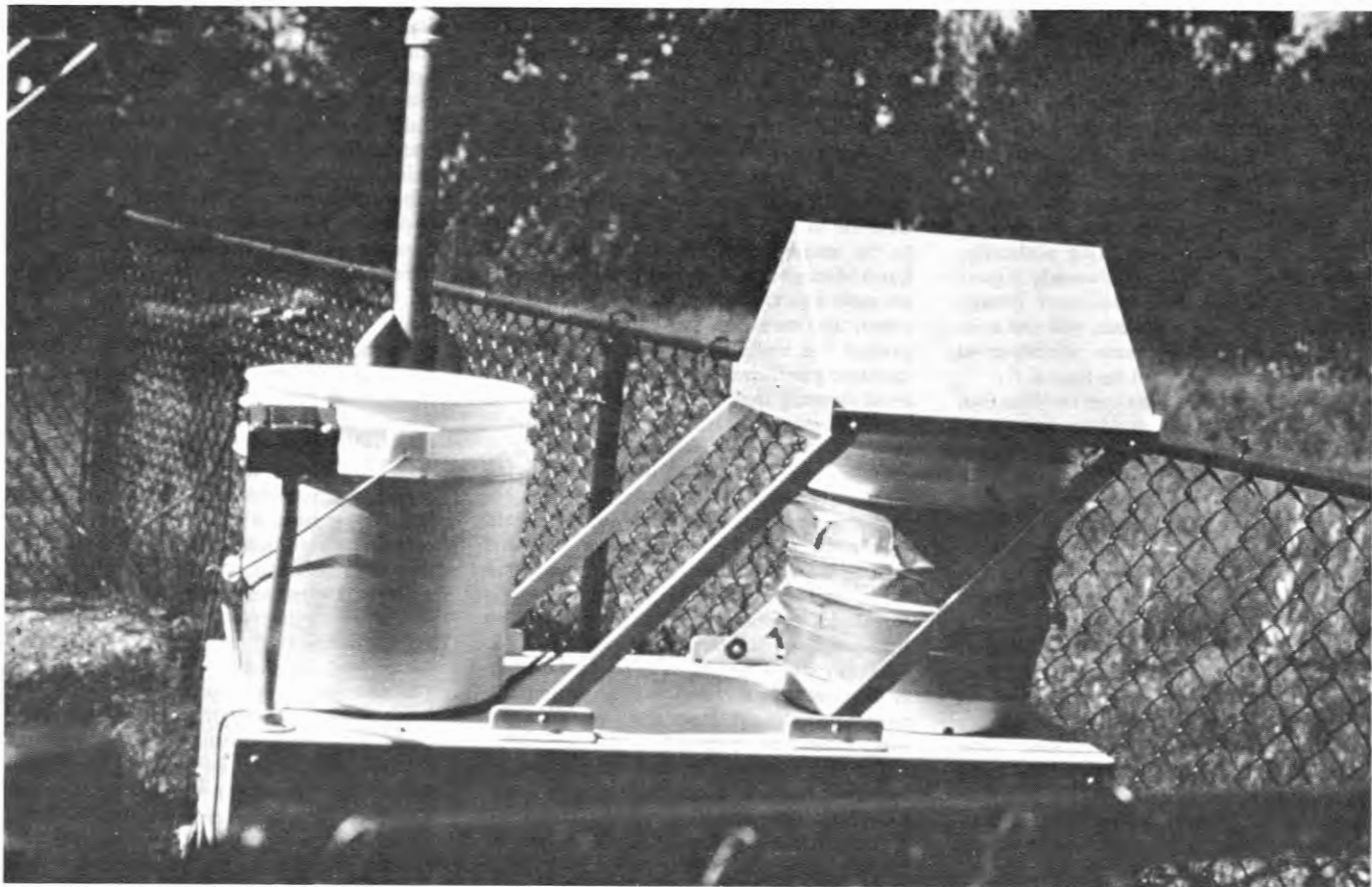




An NADP deposition monitor, Glacier NP. The "wet bucket" (with cover) is automatically uncovered when precipitation moistens a sensor.

Principal Laws and Regulations Concerning Water Quality

Clean Water Act

(Federal Water Pollution Control Act of 1972 and 1977 Amendments)

The Clean Water Act, one of the first major pieces of comprehensive environmental legislation, established a complete regulatory system for the protection of water quality in the United States. Unlike many earlier responses to environmental problems, the Clean Water Act is equally applicable to activities on both federal and private lands.

The Act has general goals to protect health, to enhance the quality of water and to provide water quality for the protection and propagation of fish, shellfish, and wildlife in and on the water and for agricultural, industrial, and recreational purposes. To meet these goals, the Congress established a system for limiting the discharge of pollutants into the waters of the United States through "effluent limitations;" that is, by limiting the amount or concentration of specified pollutants that may be discharged. The following outlines the major parts of the regulatory system:

Section 208—Non-Point Source Pollution. This section of the Act, in its requirements for looking at area-wide waste treatment strategies, requires that states identify non-point sources (sources not in a single, specific location) of pollution (such as silvicultural practices or agricultural erosion) and propose methods for controlling such pollution.

Sections 301 and 306—Effluent Limitations. These sections prohibit the discharge of pollutants without a permit and provide for effluent guidelines by industrial category. There are two different performance standards—"best control technology currently available" and "best available control technology economically achievable"—which must be met by point source dischargers.

Section 303—Water Quality Standards. These are rules set by the states for the use or uses to be made of a water body or segment and the water quality criteria necessary to protect that use or uses. Standards are enforceable and are developed through a process that takes into account social, legal, economic, and institutional

considerations. They serve to establish water quality goals for specific water bodies and serve as the basis for water quality-based treatment controls.

Section 402—National Pollution Discharge Elimination System. This permit system requires that all point source dischargers have permits that specify the effluent limitations and standards that must be met.

Section 404—Dredge and Fill Permits. All activities that would result in the filling of wetlands or in dredging of the waters of the United States are subject to permits issued by the Army Corps of Engineers.

Outstanding National Resource Waters (40 CFR 131.12(a)(3)). These regulations specifically require that the states' implementation methods and anti-degradation policies must ensure that "where high quality waters constitute an outstanding National resource, such as *waters of National and State parks and wildlife refuges* and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected" (emphasis added). [Units of the National Park

System clearly qualify for consideration for designation under this standard and the National Park Service is pursuing such designations through various state procedures.]

Safe Drinking Water Act

Passed in 1974, the purpose of this act is to safeguard public water systems and to protect groundwater sources of drinking water.

Wild and Scenic Rivers Act

The Wild and Scenic Rivers system was established to preserve free-flowing rivers and their immediate environments for the benefit and enjoyment of present and future generations. The existence of a wild or scenic river does not abrogate any existing rights and privileges but prevents establishing new rights that would affect the river and its environs' suitability for this status.

Floodplain and Wetlands Executive Orders

The two executive orders are designed to ensure that activities undertaken in floodplains or associated with wetlands do not adversely affect public safety or natural resources.

Resource Conservation and Recovery Act (RCRA)

This act provides "cradle to grave" supervision for hazardous wastes. Implementation should prevent resource damage to NPS units that would have resulted without careful supervision of these pollutants.

Boundary Waters Treaties

These agreements require that waters flowing across national boundaries shall not be polluted on either side to the injury of health or property of the other.

Adequacy of Protection

Because the standards provided by the laws and regulations cited are nationwide in applicability and effect, it is difficult to say with any accuracy whether the protection provided is adequate for specific resource protection needs in specific NPS units. It is theoretically possible to require higher standards of performance for activities within NPS units where a clear connection between the existing standards and resource degradation can be demonstrated. The difficulties with this approach are twofold: one, scientific data of the quality necessary to establish an unequivocal nexus between

the activity proposed and resource damage is difficult to come by and two, because of the exceptionally large number of permits issued by the states and EPA, it is difficult to know when permits are being issued. For these reasons, designations of specific national park waters as "outstanding national resource waters" could be important for providing a level of protection commensurate with the resource values contained in National Park System units.

Placer Mining— A Regulatory Issue

One of the major sources of impacts to water quality in units of the National Park System in Alaska, is placer mining for gold. This mining is associated with claims under the 1872 Mining Law that existed prior to establishment of the park units. Contrary to a common perception, Alaska placer mining is a large-scale operation. Because placer mining requires that the gravels of streambeds be physically displaced, the effects to stream biota and water dependent flora and fauna can be both extreme and adverse. Certain operating methods, including the use of sedimentation ponds, limiting the amount of water used in the mining process, and use of portable equipment, can limit the adverse impacts of placer mining.

Presently, the number of placer mines that will be approved for operation this year will be limited because of litigation. The National Park Service is preparing environmental impact statements on the cumulative effects of placer mining in three Alaska units, a necessary first step to settling the lawsuit.

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