

Geologic Resources Division



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



Fact Sheet

Restoration of Disturbed Lands in the National Park Service

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More than 200,000 ha (500,000 acres) throughout the National Park System¹ have been disturbed by human activities. The disturbances are abandoned mines, roads, dams, canals, railroads, campgrounds, and other abandoned sites that are not in keeping with the mission of the National Park Service or the mandates of the National Park System units. Moreover, like many alterations of the Earth's surface, most of these disturbances contaminate water and soil, obliterate soil profiles, facilitate invasion by exotic plants, result in contamination of water and soil, or cause erosion and sedimentation. These damages, in turn, frequently impair the quality of habitats and disrupt ecosystem functions. Some left unsightly scars and sites that are used for unauthorized off-road vehicle use, target ranges, dumps, and other unauthorized operations. All impede the mandates of the parks (National Park Service Organic Act, 16 U.S.C. 1 et seq. [1988], Aug. 25, 1916, ch. 408, 39 Stat. 535) "to conserve the scenery and the natural and historic objects and the wild

life therein...unimpaired for the enjoyment of future generations."

Restoration must address the biological and physical components of a disturbed ecosystem, including the conditions of the soils and the geomorphic and hydrologic settings. Establishment of stable landscapes that are comparable to the natural conditions promotes and supports the natural ecosystem mosaic. Where interrelations between natural conditions and disturbed areas are not entirely understood, sound scientific research is needed to discern the level of ecosystem impairment and to identify management options.

Restoration of altered ecosystem functions requires specialized skills not commonly found in park staffs. Most parks have only a few sites and cannot justify full-time personnel to manage disturbed lands. Yet, even a few sites per park add up to a significant number systemwide.

Disturbed Land Restoration Program

The goals of the *Disturbed Land Restoration Program* of the National Park Service are to restore natural

features and processes that were affected by the development of infrastructure and resource-extraction-related activities and to prevent or limit sources of disturbances. These goals were developed by restoration experts from throughout the National Park Service who convened in November 1996 to draft a servicewide *Disturbed Lands Strategic Plan*. Implementation of the plan must be preceded by raising the awareness of National Park Service administrators and the public to the adverse effects of disturbed lands and the need for restoration. The initial tasks will be better definitions of the scope and magnitude of the effects of disturbed lands, development of plans that aid restoration while limiting disturbance from park operations, solicitation of technical assistance from other entities, and facilitation of applied research and technology transfer. Key elements of the restoration program will be (1) the establishment of partnerships between existing National Park Service programs such as the Redwood National Park's Watershed Restoration Program, the Arid Lands Restoration Task Force, and the Alaska mining reclamation; (2) the parks' acquisition of expertise; (3) the establishment of priorities for restoration; and (4) the facilitation of cost-efficient restoration.

¹National 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*.

The planned restoration program would also be instrumental for achieving several goals identified in the *Draft NPS Strategic Plan* such as restoration of disturbed lands (an explicit goal), improvement of resource protection, enhancement of visitor experience, and raising of the efficiency of park operations. A funded Disturbed Land Restoration Group with experienced professionals would provide the skills for addressing issues of disturbed lands systemwide. The benefits to the National Park Service would be consistently satisfactory restoration that is in keeping with the principles of resource stewardship but without costly trial and error.

Budget

Currently, no funds are specifically targeted for the restoration of disturbed land. In 1995, the unfunded needs, identified in resource management plans of parks, were more than \$60 million. Partnerships can provide access to expertise and occasionally lead to completing important work in scattered parks, but sustainable program funding remains the largest and most important challenge in implementing the restoration of disturbed lands.

Potential Program Change

Since Fiscal Year 1988, a budget initiative has been submitted for the reclamation of abandoned mineral lands.

This year, the initiative is included in the President's Fiscal Year 1998 budget proposal. If it passes the Congress, the reclamation of abandoned mines portion of the disturbed lands issue will have meaningful funding for the first time. Yet, because the reclamation of abandoned mines is only a portion of the total disturbed lands problem, funding for the entire restoration program will continue to be sought.

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