

# Mineral Material Extraction in National Park Units

Mining and Minerals Branch  
Land Resources Division  
National Park Service  
Department of the Interior

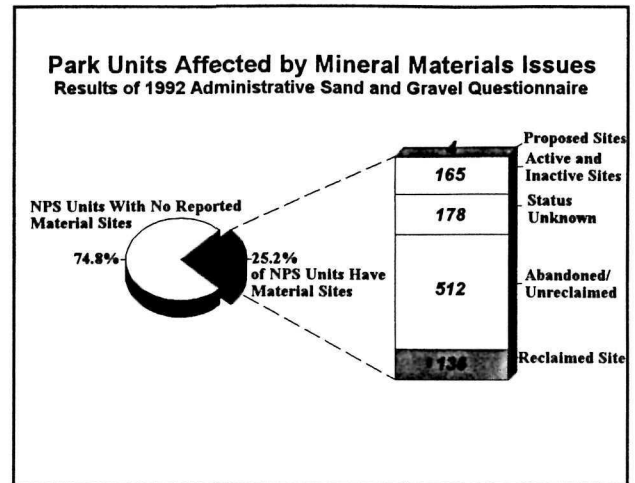
## The Issue

Mining of mineral material such as sand, rock, gravel or clay has occurred in more than 80 National Park units, in 9 regions at over 995 extraction sites. Parks report that 165 of these sites are currently mined for use in park maintenance or construction projects. Park staff usually recognize that extraction sites can be a potential source of resource impacts. However, in spite of this recognition, park managers often overlook extraction sites as a source of resource impacts during park planning and during day-to-day park operations. Without proper planning, environmental review, mitigation, monitoring and maintenance these sites can pose substantial, long-term threats to park resources and can erode NPS environmental credibility. This is especially true when we envision the results of current NPS practices over a period of 50, 100 or 200 years.

## The Problems

Lack of thoughtful planning by the NPS will result in:

- ▶ Degradation of park resources such as surface or ground water quality, air quality, visual resources, threatened and endangered species habitat or other sensitive habitat;
- ▶ Progression of non-sustainable and environmentally careless NPS actions;
- ▶ Loss of NPS credibility as a model of exemplary resource management.
- ▶ Reduced incentive for adjacent land management agencies or state permitting agencies to apply strict environmental constraints to protect park resources when the NPS does not apply similar constraints to itself;
- ▶ Violations of law, regulations or NPS policy.
- ▶ Litigation by regulatory agencies and the environmental community.



## The Solution

The Mining and Minerals Branch (MMB) has identified several simple, cost-effective actions that the NPS can carry out to enhance resource protection, enhance park credibility and decrease park liability with respect to administrative use of mineral materials. These actions are summarized below.

### A. RAISE THE AWARENESS OF NPS MANAGEMENT, PARK SUPERVISORS, MAINTENANCE AND RESOURCES PERSONNEL TO THE ISSUES AND PROBLEM-SOLVING TECHNIQUES PERTAINING TO MINERAL MATERIAL EXTRACTION.

In the past, park managers have often ignored mineral material issues, or at least subordinated these issues to other, more pressing park issues. By not directly addressing mineral material use, we are creating chronic problems for parks that will grow worse in the future.

- ▶ NPS operations management can help by making their employees aware of this issue.
- ▶ NPS can provide resource management training for park level maintenance personnel.
- ▶ NPS Mining and Mineral Branch specialists can provide engineering, reclamation and mine planning assistance to parks.

- Cross-Training opportunities can be developed for resources and maintenance personnel at the park level.

#### **B. ADDRESS MINERAL MATERIAL ISSUES IN PARK PLANNING DOCUMENTS.**

Material sites that are not addressed in park planning documents are not analyzed for their potential impacts, the adverse impacts are not recognized or mitigated, sites are not monitored, and sites are not programmed for remedial action if it is needed. Parks may continue to use these sites for extraction or sites will continue to exist unreclaimed without knowledge of the impacts they cause. The analysis of these sites should be as brief and concise as possible to address the issues and to meet legal requirements without creating a paperwork burden.

- NPS planning documents should include all proposed or existing material sites.
- A maintenance plan should be included in park planning documents.

#### **C. THE NPS NEEDS TO USE THE NEPA PROCESS MORE EFFECTIVELY AND MORE CONSISTENTLY.**

Many of the problems encountered in NPS units are the result of inconsistent application of NEPA requirements. Some units bog down in lengthy, complex documentation processes while others fill out park-created checklists that only partially meet the requirements and intent of NEPA.

- Basic NEPA training should be made available to maintenance staff and they should participate in the NEPA process.

#### **D. CONSIDER LONG-TERM CUMULATIVE IMPACTS TO IMPROVE THE DECISION-MAKING PROCESS.**

Impact analyses of material extraction projects commonly address impacts of operations lasting 5, 10 or 20 years. The decision-maker therefore does not consider the effects of continuing extraction activities over long periods of time such as 50, 100 or 200 years. For example, a NPS road material source plan is now under consideration that would result in approximately 200 acres of disturbance to provide 20 years of mineral material for the unit. In 100 years this would result in 1000 acres or over 1 ½ square miles of disturbed NPS land (approximately the same area as Mount Rushmore National Memorial). Managers should begin to consider what their

park will look like if present practices are continued well into the future (sustainability).

#### **E. NPS AND FEDERAL HIGHWAY ADMINISTRATION (FHWA) ROAD STANDARDS NEED TO BE MADE MORE APPLICABLE TO PARK NEEDS.**

Many parks say that roads in their units do not meet FHWA standards. Almost as many units say that park roads do not meet NPS standards. The reason that parks deviate from NPS and FHWA standards is to protect park resources and to decrease the impacts of visitor use. The tendency to deviate from existing standards shows that the standards do not allow enough flexibility for parks to design roads that also minimize natural resource impacts. Deviation from FHWA standards hinders and sometimes precludes parks from getting FHWA funding for park road projects.

- NPS road standards should be revised to allow for more flexibility and resource protection.
- Negotiate with the FHWA to modify their national standards and allow funding of park standard roads.
- Mineral material quantity, quality and availability should be explicitly considered in the road design process.

#### **F. NPS MATERIAL USE CAN BE REDUCED.**

The NPS can help reduce the amount of mineral materials used in parks by the following methods:

- Establish a centralized information source to provide guidance and education regarding the availability and use of alternative materials and technologies;
- Provide park units with adequate maintenance money to properly maintain park roads and make them last longer;
- Encourage the consideration of alternative transportation in parks; and
- Consider closing, downgrading or not constructing roads to reduce long-term material needs and to reduce impacts to park resources.

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