

Attachment 2: Determination of Non-Impairment

Devils Postpile National Monument General Management Plan

The Prohibition on Impairment of Park Resources and Values

NPS Management Policies 2006, §1.4.4, explains the prohibition on impairment of park resources and values:

“While Congress has given the National Park Service (NPS) management discretion to allow impacts within units of the national park system, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the NPS must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the 1916 Organic Act, establishes the primary responsibility of the NPS. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.”

What is Impairment?

NPS Management Policies 2006, §1.4.5, What Constitutes Impairment of Park Resources and Values, and §1.4.6, What Constitutes Park Resources and Values, provide an explanation of impairment: impairment “is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.”

§1.4.5 of Management Policies 2006 states:

“An impact to any park resource or value may, but does not necessarily, constitute impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- Identified in the park’s general management plan or other relevant NPS planning documents as being of significance.

An impact would be less likely to constitute impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated.”

Per §1.4.6 of Management Policies 2006, park resources and values at risk for being impaired include:

- “the park’s scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;

- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.”

Impairment could result from NPS activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the park. Impairment could also result from sources or activities outside the park, but this would not violate the 1916 Organic Act unless the NPS was in some way responsible for the action.

Purposes Identified in the Establishing Proclamation and Legislation

The July 6, 2011 presidential proclamation establishing Devils Postpile National Monument generally identifies public and scientific purposes for protecting the natural formations of the postpile and Rainbow Falls. In 1984, Congress designated most of the monument as wilderness, to be managed for wilderness purposes. In the draft GMP, the monument has described its purpose as follows: Devils Postpile National Monument preserves and protects the glacially exposed columns of the Devils Postpile, the scenic Rainbow Falls, and the wilderness landscape of the upper Middle Fork San Joaquin River in the Sierra Nevada for scientific value, public interest, and inspiration.

How is an Impairment Determination Made?

§1.4.7 of Management Policies 2006 states, “In making a determination of whether there would be an impairment, an NPS decision-maker must use his or her professional judgment. This means that the decision-maker must consider any environmental assessments or environmental impact statements required by the National Environmental Policy Act of 1969 (NEPA); consultations required under section 106 of the National Historic Preservation Act (NHPA); relevant scientific and scholarly studies; advice or insights offered by subject matter experts and others who have relevant knowledge or experience; and the results of civic engagement and public involvement activities relating to the decision.”

Management Policies 2006 further define “professional judgment” as “a decision or opinion that is shaped by study and analysis and full consideration of all the relevant facts, and that takes into account

- the decision-maker's education, training, and experience;
- advice or insights offered by subject matter experts and others who have relevant knowledge and experience;
- good science and scholarship; and, whenever appropriate,
- the results of civic engagement and public involvement activities relating to the decision.”

Impairment Determination for the Selected Alternative

This determination of non-impairment has been prepared for the selected alternative as detailed in the Finding of No Significant Impact (and as described as the preferred alternative in Chapter 3 of the Draft GMP/EA). As explained above, this determination of non-impairment does not include the following impact topics analyzed in the Draft GMP/EA – access and circulation, visitor use opportunities, wilderness character, interpretation and education, operations, and socioeconomics. This is because impairment findings relate to park resources and

values, and the above impact topics are not generally considered to be park resources or values according to the 1916 Organic Act, and therefore, cannot be impaired as can other park values and cultural and natural resources.

Geologic Resources

Most of the park's geologic resources will not be affected by the selected alternative. Some features could be degraded or altered due to new developments, access opportunities, and increased visitor use in localized areas. These long-term adverse impacts will generally be negligible to minor and will not contribute much to minor ongoing cumulative impacts from erosional effects due weathering and air pollution. Small-scale construction activities proposed in the selected alternative, occurring in previously disturbed loose pumice materials, will not affect geologic resources, with the mitigation strategies described.

Overall adverse impacts associated with the GMP will range from negligible to minor and will not vary substantially from the current conditions. There will be no impairment to the park's resources or values related to geologic resources because no major, long-term, adverse changes to these resources will occur from implementation of the selected alternative.

Soil Resources

Most of the monument's soils would not be affected by the selected alternative. In some areas, however, soils would be compacted and disturbed, and soil properties would be altered due to new developments and visitor use in localized areas, such as along trails. Some soils would be degraded or lost to compaction, disturbance, erosion, or substantially altered in local areas due to development activities at the ranger station, the day use parking area, the shuttle stop, reconfiguration of camp sites, and a joint maintenance facility. Site preparation and landscaping work would disturb soils temporarily, and soils would be modified in the footprint. With mitigation, these actions would have no more than minor to moderate, short-term, adverse impacts on previously disturbed soils. Rehabilitation of areas within and surrounding the campground and day use parking area with fewer vehicle impacts near the river banks would have long-term beneficial impacts, as would application of visitor capacity standards and indicators and removal of social trails.

Minor to moderate cumulative impacts from past management practices, altered fire regimes, visitor use, and development have affected soils in the monument. Social trails due mostly to fishing along stream banks continue to contribute to erosion through the loss of riparian vegetation. The adverse impacts of the selected alternative would not add appreciably to these cumulative impacts, largely because development is small-scale and limited.

Overall adverse impacts associated with the GMP will range from minor to moderate and will not vary substantially from current conditions. There will be no impairment to the park's resources or values related to soils because no major, long-term, adverse impacts to these resources will occur from implementation of the selected alternative.

Biological Resources

The selected alternative maintains existing infrastructure with some new facilities and improvements of facilities that could affect vegetation or wildlife; however, areas under consideration for new or improved facilities have been previously disturbed and mitigation measures will be implemented to ensure short- and long-term impacts are no more than minor.

The NPS will continue to mitigate impacts from various recreational visitor uses such as trampling and social trail development as well as from the importation and spread of invasive, non-native plants. Under the selected alternative, ongoing and proposed treatment, appropriate management in sensitive resource zones including the riparian corridor, monitoring and ecological restoration, the removal of parking sites along the riverbank and reconfiguration of the campground, reduction of parking near riparian areas, enhanced visitor education, user

capacity monitoring, and an emphasis on collaborative management at a biologically relevant scale will all benefit biological resources.

Past and ongoing use, development, and recreation within the park have resulted in cumulative adverse impacts to biological resources. The selected alternative will have few additional impacts to these resources. Therefore the contribution to cumulative larger-scale adverse impacts from past actions that have occurred or may occur within the timeframe of this plan will be small.

There will be no impairment to the park's resources or values related to biological resources because no major, long-term, adverse impacts to these resources will occur from implementation of the selected alternative.

Hydrologic Systems and Processes

The actions of the selected alternative would overall benefit the hydrologic systems and processes through the restoration work and reconfiguration of the day use and campground area. Under the selected alternative, reconfiguration of the day use parking area and campground and construction of new facilities could have minor short-term adverse impacts that will be ameliorated by the application of mitigation measures. In the long-term, the selected alternative will provide beneficial effects from ecological restoration and removal of parking and reducing trampling in riparian areas. Impacts to water quality will be similar to the current conditions, including non-point source runoff from various developed and impermeable surfaces including roads, parking lots, and facilities. Construction projects under the selected alternative, including reconfiguration of the day use area and a potential joint maintenance facility, will also produce short-term adverse impacts. Under the selected alternative, water quality degradation due to runoff will be mitigated by developing sediment control plans and implementing best management practices.

The short-term adverse effects of the selected alternative would not add appreciably to cumulative effects from ongoing impacts related to past development, climate change, and reasonably foreseeable actions on surrounding lands.

Overall impacts to water resources will remain similar to current conditions, with distinct beneficial effects from implementing the preferred alternative. There will be no impairment to the park's resources or values related to water resources because there would be no major, long-term, adverse impacts to hydrologic systems and processes from implementation of the selected alternative.

Soundscapes

Under the selected alternative, adverse impacts on the natural soundscape would occur mostly from use of a new joint maintenance facility in a new area and short-term impacts from construction and ecological restoration activities. Cumulative impacts, primarily from ongoing visitor and administrative activities, will continue to be similar to the current condition and range from minor to moderate. Proposed actions, with ongoing mitigation, do not appreciably add to cumulative impacts. There will be no impairment to the park's resources or values related to natural soundscapes because there would be no major, long-term, adverse impacts to natural soundscapes from implementation of the selected alternative.

Archeology

The actions of the selected alternative would generally benefit the preservation of archeological sites and associated collections.

Resources adjacent to or easily accessible from trails or day-use areas will continue to be vulnerable to surface disturbance, inadvertent damage, and vandalism. Loss of surface archeological materials, alteration of artifact distribution, and a reduction of contextual evidence could result in loss of site integrity over time.

Construction activities associated with the selected alternative could potentially result in adverse impacts, however, archeological surveys will precede ground-disturbance. Known archeological resources will be avoided to the greatest extent possible. If national register-eligible or listed archeological resources cannot be avoided, an appropriate mitigation strategy will be developed in consultation with the state historic preservation officer and associated tribes.

Actions that might result in a determination of adverse effect under Section 106 will be avoided. With mitigation, impacts in the selected alternative are expected to result in a determination of no adverse effect. However, if any actions in the selected alternative were to pose adverse effects to a newly-discovered resource, or a known resource in an unanticipated manner, the monument would undertake project-specific compliance with Section 106 of the NHPA in consultation with SHPO and tribes.

Over the years, visitors have caused direct damage to known sites throughout the park. Indirect damage by visitors is more difficult to measure but likely has affected sites that are adjacent to high public use areas such as roads, trails, geologic features, and visitor services areas. Natural processes, including erosion, river channel migration, tree fall, and fire, also affect archeological sites. Road and facility construction in the past likely resulted in cumulative adverse impacts on cultural resources, including archeological resources. Implementation of the selected alternative will not increase these overall adverse cumulative effects on archeological resources.

There will be no impairment to the park's resources or values related to archeological resources because no major, long-term, adverse impacts to these resources will occur from implementation of the selected alternative.

Historic Sites, Structures, Buildings, and Cultural Landscapes

The park will continue to preserve and maintain its historic structures and cultural landscapes. Monument actions will follow the *Secretary of the Interior's Standards for the Treatment of Archeology and Historic Preservation*, and the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*. Along with mitigation, the actions of the selected alternative may result in minor adverse effects to historic sites, structures, and potential cultural landscapes, but would also provide benefits. The monument will also consult with tribes and groups regarding monument undertakings with the potential to affect resources of cultural and religious significance to ensure tribal perspectives are understood, and adverse effects are avoided.

Cumulatively, natural processes, such as fire and erosion, have resulted in the disturbance and loss of cultural resources over time and climate change may increase these occurrences in the future, resulting in adverse impacts to historic sites, structures, buildings and potential cultural landscapes. The minor adverse impacts of the selected alternative would not add appreciably to these cumulative impacts, largely because actions within the selected alternative are designed to respond adaptively and promote system resilience.

There will be no impairment to the park's resources or values related to historic sites, structures, buildings or potential cultural landscapes when the selected alternative is implemented because there are no major long-term, adverse impacts to resources that fulfill the legislative purpose of the park, are key to the natural or cultural integrity of the park, or are key to opportunities for enjoyment of the park.

Museum Collections

Under the selected alternative, museum collections would likely benefit from a transfer to a shared facility outside the monument. Until the collections are moved, some minor adverse impacts could continue to occur due to the monument's inability to easily access and interpret the existing collections. The selected alternative would also provide some additional exhibit and storage space in Mammoth Lakes, and provide electronic access to the collections, increasing the beneficial effects to the collections.

There will be no impairment to the park's resources or values related to museum collections because no major, long-term, adverse changes will occur from implementation of the selected alternative.

Climate Change and Air Pollution

The selected alternative supports a comprehensive, multi-disciplinary management approach to help the monument understand, anticipate, communicate, and address the potential impacts of external stressors.

The monument recognizes that global climate change will have direct and indirect impacts on natural and cultural resources, visitor use, facilities, administration, and operations at Devils Postpile NM. The effects of global climate change will almost certainly include changes in local weather patterns, hydrologic regimes of river flow and flooding, temperature and precipitation trends, wildfire frequency, air pollution, distribution of plants and animals, increased vulnerability to invasive species, and increased insect and pathogen infestations. Pro-active planning and management will help the monument adapt to these changes and their effects on monument resources, operations, and visitors. The NPS Climate Change Response Strategy focuses on the importance of focused actions by NPS areas, and the monument's response includes these efforts.

SCIENCE

The monument will continue to provide and foster state-of-the art science to better understand the impacts of climate change and air pollution; and to develop science-based adaptive management strategies for natural and cultural resource management.

ADAPTATION

Devils Postpile NM considers and analyzes potential climate change impacts when undertaking long-range planning exercises, setting priorities for scientific research and investigations, and/or when making major decisions affecting natural and cultural resources. The monument's resource stewardship strategy, currently in progress, will identify conservation objectives and potential activities for managing resources, as well as implementation strategies, consistent with the GMP. The resource stewardship strategy will include plans and strategies for physical resources, wildlife and vegetation linkages, connectivity, and migration corridors that respond to climate change, among other factors.

The monument will work together with other federal, state, tribal and local governments, and private landowner partners to develop strategies at multiple scales including landscape-level strategies, for understanding and responding to climate change impacts.

Additional actions to be developed include engaging in partnerships to implement projects and activities that contribute to the conservation of species, natural communities, and lands and waters placed at risk by changing climate conditions.

MITIGATION

Devils Postpile NM continues to minimize the monument's contributions to climate change, and the monument's Climate Friendly Park Action Plan (2010) identifies steps that the monument is taking action on to minimize and reduce greenhouse gas (GHG) emissions. Strategies are being implemented to improve sustainability and energy

efficiency that combine to decrease the monument's carbon footprint and consumption of resources. The climate action plan complements the general management plan by providing detailed actions related to the common-to-all GMP alternatives goal of carbon footprint reduction.

COMMUNICATION

The monument will continue to interpret knowledge related to climate change to the public. Devils Postpile NM contributes an ideal location to teach visitors, park staff, visitors, and community members about climate change and impacts. The monument vividly displays evidence of powerful physical changes due to past ice ages and warming periods within the landscape, and provides results from ongoing scientific climate studies that investigate the causes and effects of natural and anthropogenic climate change.

Education and interpretive programs help visitors to understand the climate change impacts at the monument and beyond, and how they can respond to climate change. The monument will continue to communicate messages of benefits of stewardship actions that contribute to protecting the monument's significance and visitor's enjoyment, appreciation, and inspiration.

Conclusion

The impact analyses summarized above demonstrate that the selected alternative will not result in major adverse impacts on a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the proclamation establishing Devils Postpile National Monument; (2) key to the natural or cultural integrity of the monument; or (3) identified as a goal in the monument's existing planning documents. Effects to monument resources other than those discussed above have been determined to have no or negligible adverse impacts from the activities to be implemented. There will be no unacceptable impacts to park resources or values from implementing the selected alternative.