



National Park Service
U.S. Department of the Interior
Timpanogos Cave National Monument
American Fork, Utah

Finding of No Significant Impact Install New Electrical Line

Background

In compliance with the National Environmental Policy Act, the National Park Service prepared an Environmental Assessment to examine various alternatives and environmental impacts associated with the proposal to construct a new power line at Timpanogos Cave National Monument (Monument). Currently, the power line that provides electric service to the caves is deteriorating and many poles are failing. The current condition of the existing electrical lines/poles is so poor that PacifiCorp (doing business as Rocky Mountain Power) can no longer safely maintain them, thereby increasing the potential for more frequent and severe power outages and possibly a failure to the system that could cause the caves in the Monument to lose electrical power altogether. In addition, the caves have only radio communication, which is less dependable than a hard land line telephone.

The proposal is to remove the current power line and replace it with a new line in an alternate location. The action alternative will reduce the total number of pole/anchor locations from eight to three and will install a new fiber optic cable to provide telephone capability to the caves in addition to electrical power. The eight existing poles and power lines will be removed and those areas will be rehabilitated, as needed. The proposed new electrical line will be constructed with a conductor (wire) manufactured with internal fiber optic strands that are intended to be used for telephone/communication service. The telephone line will also be used to upgrade the security system for the cave.

Selection of the Preferred Alternative

Two alternatives were evaluated in the Environmental Assessment including Alternative A (No Action) and Alternative B (Construct New Power Line). Alternative B is the National Park Service's preferred alternative because it best meets the purpose and need for the project as well as the project objectives to 1) maintain consistent and dependable electrical power to the caves, 2) improve safety and accessibility of the power line, 3) provide a dependable telephone system at the caves, and 4) provide a solution that minimizes impacts to park resources.

Under Alternative B, a new power line will be constructed on the western edge of the monument and into Forest Service land, and the existing line will be removed and disposed of off-site. The new power line will reduce the number of poles from eight to three, with two of the pole sites requiring double poles. The eight poles from the current power line will be removed and the areas rehabilitated. Option 1 will supplement the preferred alternative for connecting the power line to the cave power system. This option will reduce potential impacts to the cave resources better enabling the National Park Service to protect the Timpanogos Cave System.

Mitigation Measures

- To minimize the amount of ground disturbance, staging and stockpiling areas will be in previously disturbed sites, away from visitor use areas to the extent possible. All staging and stockpiling areas will be returned to pre-construction conditions following construction.

- No damage can occur to the cave formations. Any construction in the cave can only occur in previously impacted areas. All foreign debris will be removed from the cave following construction and dust and lint must be removed immediately to prevent permanent damage. Park staff will supervise to ensure maximum cave protection.
- The walking trail leading to the caves will be closed during helicopter use. To minimize the potential for impacts to park visitors, variations on construction timing may be considered. One option includes conducting the majority of the work in the off-season (winter) or shoulder seasons. National Park Service will determine this in consultation with the contractor.
- Revegetation and recontouring of disturbed areas will take place following construction and removal of the old line and will be designed to minimize the visual intrusion of the line. Revegetation efforts will strive to reconstruct the natural spacing, abundance, and diversity of native plant species using native species. All disturbed areas will be restored as nearly as possible to pre-construction conditions shortly after construction activities are completed. Weed control methods will be implemented to minimize the introduction of noxious weeds. Some trees may be removed, but other existing vegetation at the site will not be disturbed to the extent possible.
- Fugitive dust generated by construction will be controlled by spraying water on the construction site, if necessary.
- To reduce noise and emissions, construction equipment will not be permitted to idle for long periods of time.
- To minimize possible petrochemical leaks from construction equipment, the contractor will regularly monitor and check construction equipment to identify and repair any leaks.
- Should construction unearth previously undiscovered cultural resources, work will be stopped in the area of any discovery and the Monument will consult with the state historic preservation officer and the Advisory Council on Historic Preservation, as necessary, according to §36 CFR 800.13, *Post Review Discoveries*. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) will be followed.
- The location for the power line will be situated in such a way as to minimize its visual effect to the historic character of the entrance. To reduce visual impacts the power line was designed so it would not be required to have orange aerial balls installed on it for aviation safety.
- Construction workers and supervisors will be informed about the special sensitivity of Monument's values, regulations, and appropriate housekeeping. The National Park Service will ensure that all contractors and subcontractors are informed of the penalties for illegally collecting artifacts or intentionally damaging paleontological materials, archeological sites, or historic properties. Contractors and subcontractors will also be instructed on procedures to follow in case previously unknown paleontological or archeological resources are uncovered during construction. Construction workers and supervisors will be informed about special status species. Contract provisions will require the cessation of construction activities if a species were discovered in the project area, until park staff re-evaluates the project. This will allow modification of the contract for any protection measures determined necessary to protect the discovery

Alternatives Considered

Two alternatives were evaluated in the Environmental Assessment including the no-action alternative and one action alternative. Under alternative A, No-Action, the power line will not be changed. Alternative B, Construct a New Power Line, is the preferred alternative, as described in the previous section. There were five other alternatives listed in the Environmental Assessment that were considered then dismissed.

Environmentally Preferred Alternative

Alternative B is the environmentally preferred alternative. The environmentally preferred alternative is determined by applying the six criteria suggested in §101 the National Environmental Policy Act. According to these criteria, the environmentally preferred alternative should 1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; 2) assure for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings; 3) attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences; 4) preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice; 5) achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and 6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Alternative B is the environmentally preferred alternative because it best addresses these six evaluation factors. Alternative B, Construct a New Power Line, will improve a working environment for monument and power company staff that meets health and safety recommendations, while minimizing environmental impacts to the extent possible. The line will reduce the safety concerns for access and maintenance. As a more reliable power source, the new power line will be used by future generations.

Why the Preferred Alternative Will Not Have a Significant Effect on the Human Environment

As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

Implementation of the preferred (selected) alternative will result in some adverse impacts; however, the overall benefit of the project, particularly to the visitor experience and park operations, outweighs these negative effects. The adverse effects are summarized as follows. Construction activities will cause minor disturbance to the geology and soils in the project area to a negligible to minor degree. Minor, temporary, adverse impacts to visitor use and experience will result from temporary closures and increased noise and dust associated with construction activities. Minor long term impacts will result on the view from the trail since the power lines and poles at Site 2 will be visible on the upper cave trail.

The overall benefit of implementing the preferred (selected) alternative is that park operations will be improved to a moderate degree because the improved access and safety in maintaining the line. Access to the line is improved through pole site placement and the new poles will enable power company employees to safely climb in the improved locations. The new power line will also benefit employee communication, cohesion, and efficiency through the fiber optic connection enabling phone service to be available to staff and visitors at the cave entrance. Further, the improved line

network will provide safer and easier access for employees because the new power line will require less maintenance.

The degree to which the proposed action affects public health or safety

The preferred alternative will have an overall beneficial effect on public health and safety, particularly for the power company employees that maintain the power line. Continuing to provide power to the caves will maintain a safe lighted experience for the cave visitors and staff.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas

The preferred alternative will not impact unique characteristics of the area including park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas because these resources do not exist in the project area.

The degree to which the effects on the quality of the human environment are likely to be highly controversial

Throughout the environmental process, the proposal to relocate the power line was not highly controversial, nor are the effects expected to generate future controversy.

The degree to which the possible effects on the quality on the human environment are highly uncertain or involve unique or unknown risks

The effects of constructing a new power line are fairly straightforward and do not pose uncertainties. The environmental process has not identified any effects that may involve highly unique or unknown risks.

The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

The preferred alternative is not expected to set a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

Cumulative effects were analyzed in the Environmental Assessment and no significant cumulative impacts were identified.

The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

No adverse effects will occur to historic or cultural resources. A letter dated April 28, 2009 from the Utah State Historic Preservation Office confirms the NPS determination of *no adverse effect* to historic resources per §106 of the National Historic Preservation Act. The proximity of pole site 3 was evaluated for its possible impacts to the historic Hansen Cave entrance area but it was determined that the project would have no effects on this area.

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

Information gathered from the U.S. Fish and Wildlife Service and the Utah Division of Wildlife on December 24, 2008 indicated that there are seven federally-listed species and nineteen state-listed species of concern in Utah County. There are no records of these species in the project area, nor does the project have any designated critical or essential habitat for these species, which constitutes a finding of "no effect".

Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment

The action will not violate any federal, state, or local laws or environmental protection laws.

Appropriate Use, Unacceptable Impacts, and Impairment

Sections 1.5 and 8.12 of NPS *Management Policies* underscore the fact that not all uses are allowable or appropriate in units of the National Park System. The proposed use was screened to determine consistency with applicable laws, executive orders, regulations, and policies; consistency with existing plans for public use and resource management; actual and potential effects to park resources; total costs to the Park Service; and whether the public interest will be served. A power line is a common and vital structure in most park units. Proper location, sizing, as well as construction materials and methods will ensure that unacceptable impacts to park resources and values will not occur. The proposed power line is consistent with the park's general management, the Uinta National Forest Land and Resource Management Plan, and other related park plans. With this in mind, the NPS finds that a power line is an acceptable use at Timpanogos Cave National Monument.

The impact threshold at which impairment occurs is not always readily apparent. Therefore, the Service applies a standard that offers greater assurance that impairment will not occur. The Service will do this by avoiding impacts that it determines to be unacceptable. These are impacts that fall short of impairment, but are still not acceptable within a particular park's environment. Park managers must not allow uses that will cause unacceptable impacts; they must evaluate existing or proposed uses and determine whether the associated impacts on park resources and values are acceptable. Because the application of mitigating measures is expected to be successful in ensuring that no major adverse impacts will occur and that satisfactory reclamation of the disturbed area is expected to be achievable, implementation of the preferred alternative will not result in any unacceptable impacts.

In analyzing impairments in the NEPA analysis for this project the NPS takes into account the fact that if an impairment were likely to occur, such impacts will be considered to be major or significant under CEQ regulations. This is because the context and intensity of the impact will be sufficient to render what will normally be a minor or moderate impact to be major or significant. Taking this into consideration, NPS guidance documents note that "Not all major or significant impacts under a NEPA analysis are impairments. However, all impairments to NPS resources and values will constitute a major or significant impact under NEPA. If an impact results in impairment, the action should be modified to lessen the impact level. If the impairment cannot be avoided by modifying the proposed action, that action cannot be selected for implementation." "Interim Technical Guidance on Assessing Impacts and Impairment to Natural Resources" National Park Service, Natural Resource Program Center, July 2003.

In addition to reviewing the definition of "significantly" under the NEPA regulations, the NPS has determined that implementation of the preferred alternative will not constitute an impairment to

the integrity of Timpanogos Cave National Monument's resources or values as described by NPS *Management Policies* (NPS 2006 § 1.4). This conclusion is based on the NPS's analysis of the environmental impacts of the proposed action as described in the EA, the public comments received, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in 2006 NPS *Management Policies*. The EA identified less than major adverse impacts on historic structures and paleontological resources. Although the plan/project has some negative impacts, in all cases these adverse impacts are the result of actions taken to preserve and restore other park resources and values. Overall, the plan results in benefits to park resources and values, opportunities for their enjoyment, and it does not result in their impairment.

Public Involvement

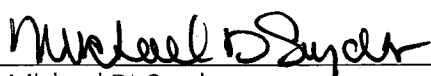
The Environmental Assessment was made available for public review and comment during a 30-day period ending May 18, 2009. To notify the public of this review period, a press release was mailed to stakeholders, interested parties, and newspapers. Copies of the document were sent to certain agencies and interested parties; made available in local repositories; and posted on the internet. A total of thirteen comment letters were received, mostly from private individuals, plus one from Highland City and one from U.S. Forest Service, all in favor of the park continuing to provide electrical power to the cave and most in favor of the preferred alternative as designed. Substantive comments centered on the applicability of the project to U.S. Forest Service plans and policies; impacts to Forest management indicator species; impacts to wilderness; new alternative ideas; visual quality impacts; and recreation impacts on U.S. Forest Service lands

Conclusion


As described above, the preferred alternative does not constitute an action meeting the criteria that normally require preparation of an environmental impact statement (EIS). The preferred alternative will not have a significant effect on the human environment. Environmental impacts that could occur are limited in context and intensity, with generally adverse impacts that range from localized to widespread, short- to long-term, and negligible to moderate. There are no unmitigated adverse effects on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

Based on the foregoing, the National Park Service has determined that an EIS is not required for this project and thus will not be prepared.

Approved:



Michael D. Snyder
Director, Intermountain Region, National Park Service



Date

ERRATA SHEETS
Install New Electrical Line Environmental Assessment
Timpanogos Cave National Monument

Substantive comments to the Environmental Assessment for installing a new electrical line at Timpanogos Cave centered on these topics: applicability of the project to U.S. Forest Service plans and policies; impacts to Forest management indicator species; impacts to wilderness; new alternative ideas; visual quality impacts; and recreation impacts on U.S. Forest Service lands. Some of these topics resulted in minor changes to the text of the Environmental Assessment. Responses to all of these comments can be found following the text changes.

Text Changes

Page 4, Relationship to Other Plans and Policies: Include these sentences, "The proposal to install a new electrical line to the Timpanogos Cave System is consistent with the goals and objectives of the Uinta National Forest 2003 Forest Plan. Forest Wide Goal 8 states that infrastructure on the forest needs to be safe and responsive to public needs while having a minimum impact on the ecological processes."

Page 7, Visitor Use and Experience: Include this sentence, "The USDA Forest Service has designated the lower American Fork Canyon as a dispersed recreation area as well as a Wildland Urban interface area in the Recreation Opportunity Spectrum. This portion of the canyon is primarily used for vehicular transportation on SR 92 and some recreation."

Page 10, Special Status Species: Include these sentences, "The Uinta-Wasatch-Cache National Forest lists five management indicator species in the 2003 Forest Plan-the Northern goshawk, Three-toed woodpecker, American beaver, Bonneville cutthroat trout, and the Colorado River cutthroat trout. There are no records of any of these species in the project area, nor does the project have any designated critical or essential habitat for these species."

Page 11, Wilderness: Replace this sentence, "There is no Congressionally designated or recommended wilderness at Timpanogos Cave National Monument." with this sentence, "The project area, which is situated on lands managed by Timpanogos Cave National Monument and by Uinta-Wasatch-Cache National Forest, is not within Congressionally designated or recommended wilderness. Site 1 is located between the Lone Peak Wilderness Area boundary, adjacent to SR 92. The wilderness boundary is 150 feet from the centerline of the highway."

Page 17, Alternative B: Include this sentence, "To remain outside the Lone Peak Wilderness, the poles located at Site 1 will be approximately 100 ft from the centerline of SR 92 allowing appropriate space for installation and access."

Page 22, Alternatives Locations for a new Electric Line: Include this sentence, "Several alternatives were considered for installing the new electric line. Several are shown in Figure 3. Burying the line in the trail was also considered but dismissed due to the high cost of installation, materials, and maintenance."

Pages 33-34, Visitor Use and Experience: Include these sentences, "Under the no action alternative, there would be no impacts to recreation on Forest lands. Without construction activities, there would be no limitation or impediments to visitors in recreating in American Fork Canyon or driving SR 92."

Under Alternative A, construction activities would increase noise in American Fork Canyon during construction on Site 1. During that time, traffic would be diverted or slowed in the area to improve employee safety during pole installation. Additionally, the SR 92 would be closed during helicopter activities, having minor, short-term impacts to forest and monument users during that time.

Pages 35-36, Park Operations: Include these sentences, "Under this alternative, there would be no change to forest management, land use designations or operations.

"Under Alternative A, the Uinta-Wasatch-Cache National Forest would modify the special use permit for the designated utility corridor right-of-way in American Fork Canyon to include Site 1, enabling the power to branch from the main electrical line to connect with the new power line."

Responses to Substantive Comments

Comment: *What is the relationship of this project to the 2003 Uinta National Forest Plan and applicable (2003) Forest Service Standards and Guidelines?*

Response: The project relates to the Uinta National Forest 2003 Forest Plan. Forest Wide Goal 8 states that infrastructure on the forest needs to be safe and responsive to public needs while having a minimum impact on the ecological processes. Please note the text change to the Environmental Assessment.

Comment: *What impact will this project have on Forest management indicator species?*

Response: The Uinta-Wasatch-Cache National Forest has five management indicator species listed in the 2003 Forest Plan-the Northern goshawk, Three-toed woodpecker, American beaver, Bonneville cutthroat trout, and the Colorado River cutthroat trout. This project will not impact any of these species.

Comment: *Is any portion of this project in wilderness?*

Response: Page 11 of the Environmental Assessment states there is no wilderness at Timpanogos Cave National Monument. In addition, the portion of the project in the Uinta-Wasatch-Cache National Forest (site 1) is not in wilderness. Site 1 is located adjacent to Lone Peak Wilderness Area but will not be locate on wilderness. Please note the text change to the Environmental Assessment.

Comment: *Are there any land use issues for this project?*

Response: Both the USDA Forest Service and the National Park Service will need to revise their special use permits for the utilities corridor. The power line in American Fork Canyon falls within a designated utilities corridor and to connect Site 1 with the existing line, will require a modification of the permit to allow for this project.

Comment: *Will there be any affects to forest minerals, range, or fire management?*

Response: Although Site 1 is located on Uinta-Wasatch Cache Forest land, there are no impacts to mineral, range or fire management resources.

Comment: *The National Park Service should consider an alternative to bury the power line under the existing trail to the cave.*

Response: During initial scoping, the National Park Service considered burying the power line in the cave access trail but found this option to be incredibly costly. The projected cost is \$420,000 while burying the line would cost in the excess of \$2,154,000. The majority of the cost would come from the excavation and installation of the line into the bedrock. Construction would entail removal of the trail and excavation and blasting the rock to adequately protect the line, then restoring the trail. Burying the cable would also require longer power cable to follow the 1.5 mile length of the trail and the 1.5 miles conduit to encase the line. Power boxes would also have been needed at each switchback and periodically along the trail for installation and long-term maintenance.

Additionally, this alternative would have closed the trail for several months during construction, canceling tours and impacting visitor use and experience. Please note the text change to the Environmental Assessment.

Comment: *The National Park Service should consider other sources of power such as hydrologic, solar with battery backup, and geothermal.*

Response: Several types of "off-the-grid" power such as solar and wind were considered and dismissed in the early phases of the project development. The National Park Service acknowledges that these types of energy can be environmentally sustainable, but the cost to construct these systems in this situation is prohibitive. The site does not have sustained wind resources. The aspect of the site faces north, and high cliffs to the south totally block the sun much of the year and interfere with it through much of the main visitor use season. Ultimately, these systems may cause greater adverse impacts to the Monument's resources -- particularly to the viewshed -- and thus were dismissed.

Comment: *I am concerned about the increased visibility of the power line from the cave, and ask that all consideration be made to maintain the sweeping valley views the trail is known for.*

Response: The new power line will result in minor impacts to the canyon views from the trail. The line will be visible on the upper portions of the trail. The selected alternative was chosen to reduce the need for orange aerial balls that would cause increased visual intrusion. To further mitigate the visual impacts the poles- specifically at Site 2 will be made of Core 10 Steel that will appear black initially but will quickly become brown having an appearance similar to a wood pole, thereby reducing the overall visibility of the poles. Additionally, once construction is completed, vegetation will return, camouflaging sections of the line.

Although efforts will be made to reduce the visual impacts of the power line during and following construction of the line, sections of the line will still be visible to people hiking the upper portions of the trail.

Comment: *What type of visitor use (recreation) occurs on the portion of the project in the Uinta-Wasatch-Cache National Forest and how will the project impact it?*

Response: Site 1 is located on Uinta-Wasatch-Cache National Forest. The USDA Forest Service has designated the lower American Fork Canyon as a dispersed recreation area as well as a Wildland Urban interface area in the Recreation Opportunity Spectrum. This portion of the canyon is primarily used for vehicular transportation on SR 92 and some recreation. Please note the text change to the Environmental Assessment.