

allowed only between 1/2 hour after sunrise to 1/2 hour before sunset, which would reduce impacts to negligible levels.

Over the long-term, once the construction is completed, the sound level would return to pre-construction levels.

Cumulative Effects: There are no known cumulative effects to Soundscape.

IMPACTS TO CULTURAL RESOURCES AND §106 OF THE NATIONAL HISTORIC PRESERVATION ACT

In this Environmental Assessment, impacts to cultural resources are described in terms of type, context, duration, and intensity, which is consistent with the regulations of the Council on Environmental Quality (CEQ) that implement the National Environmental Policy Act (NEPA). These impact analyses are intended, however, to comply with the requirements of both NEPA and §106 of the National Historic Preservation Act (NHPA). In accordance with the Advisory Council on Historic Preservation's regulations implementing §106 of the NHPA (36 CFR Part 800, Protection of Historic Properties), impacts to archeological resources and the cultural landscape were identified and evaluated by (1) determining the area of potential effects; (2) identifying cultural resources present in the area of potential effects that were either listed in or eligible to be listed in the National Register of Historic Places; (3) applying the criteria of adverse effect to affected cultural resources either listed in or eligible to be listed in the National Register; and (4) considering ways to avoid, minimize or mitigate adverse effects.

Under the Advisory Council's regulations, a determination of either adverse effect or no adverse effect must also be made for affected National Register eligible cultural resources. An adverse effect occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualify it for inclusion in the National Register (e.g. diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association). Adverse effects also include reasonably foreseeable effects caused by the Preferred Alternative that would occur later in time, be farther removed in distance or be cumulative (36 CFR Part 800.5, Assessment of Adverse Effects). A determination of no adverse effect means there is an effect, but the effect would not diminish in any way the characteristics of the cultural resource that qualify it for inclusion in the National Register.

CEQ regulations and the National Park Service's *Conservation Planning, Environmental Impact Analysis and Decision-making* (Director's Order #12) also call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact, e.g. reducing the intensity of an impact from major to moderate or minor. Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation under NEPA only. It does not suggest that the level of effect as defined by §106 is similarly reduced. Although adverse effects under §106 may be mitigated, the effect remains adverse.

A §106 summary is included in the impact analysis sections under the preferred alternative. The §106 Summary is intended to meet the requirements of §106 and is an assessment of the effect of

the undertaking (implementation of the alternative) on cultural resources, based upon the criterion of effect and criteria of adverse effect found in the Advisory Council's regulations.

Native American Concerns

"The United States has a unique legal and political relationship with Indian tribal governments, established through and confirmed by the Constitution of the United States, treaties, statutes, executive orders, and judicial decisions. In recognition of that special relationship, pursuant to Executive Order 13175 of November 6, 2000, executive departments and agencies (agencies) are charged with engaging in regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, and are responsible for strengthening the government-to-government relationship between the United States and Indian tribes," (Barack Obama. Executive Order November 9, 2009).

Traditional Associated Tribes and Pueblos of the park have expressed their views as "... being taught not to disturb the natural world in a significant way and that to do so may cause harm.... Natural resources can best be protected by managing the land to be as natural as it was..." (Pawnee letter of consultation, 2013).

The project would be located within a natural resource. As impacts from the project could affect the natural resources of the area, Native American concerns will be addressed.

Cultural Resources

Before identifying the effects a project may have on any cultural resources, those resources need to be identified, evaluated, and their eligibility for listing on the National Register of Historic Places determined. Under §106 regulations, the project area, known technically as the "area of potential effect," must have been surveyed for "historic properties." All surveys must meet the Secretary of the Interior's Standards for Archeology and Historic Preservation. Any cultural properties found in that survey should be evaluated for National Register eligibility. The EA must analyze the effects on these National Register eligible or listed properties or on ethnographic resources that have not yet been determined eligible.

Archeological Resources

Archeological surveys have been conducted in the Area of Potential Effect of the project. There are 36 other archeological sites within one mile (1.6 kilometer) of the project, but none within 300 feet (100 meters). The Area of Potential Effect, however, contains only minor archeological resources of three objects (lithic flakes), but no archeological sites or other significant archeological resources or other historic properties. The project will not affect archeological resources, and the topic of Archeological Resources has been dismissed from further analysis.

Cultural Landscapes

The project is located adjacent to the Carlsbad Caverns Historic District and Cultural Landscape, a historic property. As such, impacts to the cultural landscape will be addressed.

Ethnographic Resources

The Park consulted by letter all 14 Traditionally Associated Tribes and Pueblos on the project. Only Isleta Pueblo, Ysleta del Sur Pueblo, and the Hopi Tribe responded and stated they had no areas of concern. No ethnographic resources have been identified in the proposed project Area of Potential Effect. Therefore, the topic of Ethnographic Resources has been dismissed from further analysis.

Historic Structures

The Carlsbad Caverns Historic District and Cultural Landscape, including the Visitor Center and park offices, is adjacent, but not in the Area of Potential Effect. The Bat Cave Draw parking terraces (IDLCS 61740), stone curbs (IDLCS 61747), masonry stone culverts (IDLCS 61745) and other non-continuous fieldstone masonry retaining walls (IDLCS 61746) along the entrance road (Biallas, n.d.) of the historic district are adjacent or near the project. The project may have an adverse effect upon these historic properties. Impacts to these Historic Structures will be addressed. Thirty-six other archeological sites are within one mile (1.6 kilometers) of the project site. The historic district includes the parking terraces (IDLCS 61740), stone curbs (IDLCS 61747), masonry stone culverts (IDLCS 61745) and other non-continuous fieldstone masonry retaining walls (IDLCS 61746) along the entrance road (Biallas, n.d.). None of these will be affected by the project.

The existing damaged pipeline does not meet any of the historic property criteria under 36CFR60.4 (A,B,C,D). An asbestos removal project (NMSHPO Log No.95290) in the same exact alignment and footprint was completed in November 2012. This project had no effect upon historic properties.

Museum Objects

None of the alternatives of this project would have an impact on the Carlsbad Caverns National Park's museum collection. Therefore, the topic of museum collections has been dismissed from further analysis.

The Preferred Alternative (to bury the pipeline on the Mesa Top) would have no adverse effect on historic properties.

CONSULTATION/COORDINATION

Scoping

Scoping is a process to enlist a wider audience in order to identify the resources that may be affected by a project proposal, and to explore possible alternative ways of achieving the proposal while minimizing adverse impacts. Carlsbad Caverns National Park conducted both internal scoping with appropriate National Park Service staff and external scoping with interested/affected persons, groups and agencies.

Internal Scoping

Internal scoping was conducted by an interdisciplinary team of professionals from Carlsbad Caverns National Park. Beginning in January 2013, the team met several times to discuss the purpose and need for the project, various alternatives, potential environmental impacts, cumulative effects, and possible mitigation measures. Over the course of the project, team members conducted site visits to the proposed site for the waterline. The team also gathered background information and discussed public outreach for the project.

External Scoping

External scoping was conducted April 23 to May 28, 2013 to inform about the proposal to construct the waterline across the escarpment. This process was initiated with the distribution of a public notice to local newspapers, inviting the public to consider and provide input on the proposed replacement waterline project. The public was asked to submit comments on the project alternatives via the NPS Planning, Environmental and Public Comment (PEPC) website (<http://parkplanning.nps.gov/>). Scoping information was also disseminated via a letter from the National Park Service (NPS) to interested parties. The public was given 30 days to comment on the proposed alternatives. During the comment period, one response was received from the public. The response did not offer additional suggestions or comments.

AGENCIES/TRIBES/ORGANIZATION/INDIVIDUALS CONTACTED

Federal Agencies

U.S. Forest Service, Lincoln National Forest, Guadalupe Mountains Ranger District, New Mexico

Department of the Interior:

U.S. Fish and Wildlife Service-Ecological Services Office

U.S. Fish and Wildlife Service-Migratory Birds Office

NPS, Guadalupe Mountains National Park

NPS, Water Resources Division, Aquatics Systems Branch, Fort Collins, Colorado

Bureau of Land Management, Carlsbad Field Office, New Mexico

In accordance with the Endangered Species Act, the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act, National Park Service (NPS) contacted the Fish and Wildlife Service with regards to federally listed species.

State Agencies

New Mexico State Historic Preservation Office

New Mexico Department of Game and Fish

New Mexico Energy, Minerals, and Natural Resources Department

New Mexico Historic Preservation Office

The NMSHPO was informed by letter dated April 23, 2013 of the preparation of An Environmental Assessment/Assessment of Effect for implementing the project. The letter asked for comments on the five alternatives to be submitted by May 28, 2013. The NMSHPO acknowledged receipt of the letter (received April 29, 2013, NMSHPO Log 96748; Norman Nelson), but has not yet submitted comments.

Non-governmental Organizations

National Cave/Karst Research Institute- Carlsbad, New Mexico

Native American Consultation

Fourteen Native American tribes, Traditionally Associated with Carlsbad Caverns National Park, were contacted by letter to determine if they wanted to be involved in the environmental compliance process:

- The Pueblo of Isleta, New Mexico
- Mescalero Apache Tribe of the Mescalero Reservation, New Mexico
- The Jicarilla Apache Nation, New Mexico
- The Pueblo of Zia, New Mexico
- The Zuni Tribe of the Zuni Reservation, New Mexico
- The Ysleta Del Sur Pueblo, Texas
- The Hopi Tribe, Arizona
- The San Carlos Apache Tribe of the San Carlos Reservation, Arizona
- The White Mountain Apache Tribe of the Fort Apache Reservation, Arizona
- The Pawnee Nation, Oklahoma
- The Comanche Nation, Oklahoma
- The Kiowa Indian Tribe of Oklahoma
- The Apache Tribe of Oklahoma
- The Fort Sill Apache Tribe, Oklahoma

All of the Tribes were contacted by letter. Isleta Pueblo, Ysleta del Sur Pueblo and Hopi Tribe responded and stated they had no areas of concern.

ENVIRONMENTAL ASSESSMENT REVIEW AND LIST OF RECIPIENTS

The Environmental Assessment (EA) is subject to a 30-day public comment period. To the inform the public of the availability of the EA, NPS would publish and distribute a letter to various agencies, tribes, and the park mailing list, as well as send out a press release to local newspapers. The document would be available for review on the National Park Service (NPS), Planning, Environment and Public Comment (PEPC) website at <http://parkplanning.nps.gov/>. The document is also available at the Carlsbad Caverns National Park Administrative Offices located at 3225 National Parks Highway, Carlsbad, New Mexico. Copies of the EA would be provided to interested parties, upon request.

LIST OF PREPARERS

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Shawn Thomas	Cave Technician
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MANAGEMENT PLANS AND POLICIES

- NATIONAL PARK SERVICE, U.S. DEPARTMENT OF INTERIOR:
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 - 2006 NPS, Management Policies 2006, Washington, DC.
 - 2005 NPS, Fire Management Plan, Carlsbad Caverns National Park.
 - 2004a NPS, Cultural Landscape Inventory 1999, Revised 2004, Caverns Historic District, Carlsbad Caverns National Park. Intermountain Region, Santa Fe Support office, Santa Fe, NM.
 - 2002 Carlsbad Cavern Resource Protection Plan, Carlsbad Caverns National Park.
 - 1996 General Management Plan, Carlsbad Caverns National Park.
 - 1996b Final General Management Plan / Environmental Impact Statement, Carlsbad Caverns National Park.
 - 1996c Interpretive Plan, Carlsbad Caverns National Park. Division of Interpretive Planning, Harpers Ferry, West Virginia.
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