



GLEN CANYON NATIONAL RECREATION AREA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

ANTELOPE POINT MARINA AND RESORT DEVELOPMENT PROJECT

Glen Canyon National Recreation Area

June 2002

**National Park Service
US Department of the Interior**

JUL 15 2002

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The Navajo Indian Reservation and Glen Canyon National Recreation Area (NRA) share a lengthy boundary along the southern shore of Lake Powell, the San Juan River, and the Colorado River segment between Glen Canyon Dam and Lees Ferry. To foster cooperative management and development of the Glen Canyon NRA and adjacent Tribal lands, the Navajo Nation, National Park Service, Bureau of Reclamation, Bureau of Indian Affairs, and Secretary of the Department of the Interior signed a Memorandum of Agreement in 1970 outlining mutual responsibilities in developing and managing the common areas. The agreement recognized the Navajo Nation's desire to commercially develop areas contiguous to Lake Powell for recreational use and provided for cooperative planning, administration, and development of such recreation sites. The proposed resort development project is along the southern shoreline of Lake Powell at Antelope Point, approximately 2 miles northeast of the City of Page, 3.5 miles southeast of Wahweap, and 2 miles northwest of the Navajo Generating Station.

In October 2000, the Navajo Nation and National Park Service published a prospectus seeking proposals to develop the Antelope Point Marina and Resort Development Project (the Project) consistent with the previously Navajo Nation and National Park Service-approved Development Concept Plan and Environmental Assessment (DCP/EA). In February 2001, the Antelope Holdings, LLC (Antelope Holdings), formerly known as G.M.F. Antelope, LLC (GMF), was the only firm that responded to the prospectus and submitted a formal bid. The Navajo Nation and National Park Service selected Antelope Holdings' proposal to develop and operate this resort and marina.

An environmental assessment (EA) was prepared to examine three alternatives for the Project: the No Action Alternative (Alternative A); the proposal submitted by Antelope Holdings (the Project developer) to the Navajo Nation and National Park Service (Alternative B); and a modification of Antelope Holdings' proposal that would reduce potential environmental consequences (Alternative C, the preferred alternative). Alternatives B and C each provide for the development of a floating marina village and boat docks, dry storage for boats, campground and recreational vehicle (RV) park, resort hotel and cultural center, optional employee housing, and supporting infrastructure. The EA was available for public review and comment beginning on March 18, 2002 through May 3, 2002, which provided an opportunity for public input on the alternatives.

After careful review of resource and visitor impacts and public comments, the preferred alternative has been selected for implementation. Topics of concern identified during scoping, and evaluated in the EA, included air quality, geology and soils, water resources, vegetation, wildlife and wildlife habitat, special status species, cultural resources, public safety, the natural soundscape, transportation and traffic, visual resources, socioeconomics, environmental justice, and waste management.

Preferred Alternative (Alternative C in the EA)

The preferred alternative will allow development at Antelope Point consistent with the 1979 Glen Canyon NRA General Management Plan (GMP) and the 1986 Antelope Point Development Concept

Plan and Environmental Assessment (DCP/EA). The preferred alternative includes development of a floating marina village and boat docks, dry storage for boats, a campground and RV park, resort hotel and cultural center, optional employee housing, and supporting infrastructure. This alternative provides the option to truck wastewater to Page, Arizona for disposal, development of two public safety facilities, and establishment of a large setback for the dry storage area from the main entry road. The preferred alternative was established by modifying the proposal submitted by Antelope Holdings, LLC, in ways that would reduce potential environmental impacts.

Environmentally Preferred Alternative

The environmentally preferred alternative is determined by applying the criteria suggested in the National Environmental Policy Act of 1969 (NEPA), which is guided by the Council on Environmental Quality (CEQ). CEQ provides direction that "[t]he environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101:

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.

The environmentally preferred alternative is the same as the preferred alternative. The preferred alternative minimizes environmental impacts, while providing diverse visitor experience opportunities. Alternative C would surpass the other alternatives in meeting the full range of national environmental policy goals as stated in Section 101 of NEPA. Although the No Action Alternative may achieve greater levels of individual protection for cultural resources or natural resources, Alternative C overall would (1) provide a high level of protection of natural and cultural resources, while concurrently attaining the widest range of neutral and beneficial uses of the environment without degradation; (2) maintain an environment that supports diversity and variety of individual choice; and (3) integrate resource protection with an appropriate range of visitor use.

Other Alternatives Considered in the EA

Alternative A, No Action – This alternative was considered in the EA. This alternative represents the current status of the Antelope Point site. Existing use and development at Antelope Point is based on planning in the GMP. Camping and occasional, unauthorized off-highway vehicle use are practiced at Antelope Point, and the site is without active park patrols or interpretation. These activities contribute to site degradation, as does the litter strewn around the site, which is accelerated as a result of the lack of law enforcement and other public safety personnel and facilities there. The main entry road has been improved, but only primitive facilities (e.g., vaulted toilets, one information shelter, two courtesy docks) are available to Antelope Point visitors. There would be a continued degradation of natural and cultural resources, lack of law enforcement and public safety personnel, and fewer recreational opportunities for the public under this alternative.

Alternative B, the Proposal submitted by Antelope Holdings, LLC – This alternative was considered in the EA. Alternative B would provide diverse opportunities for leisure and recreational activities for visitors of Antelope Point. Project facilities and services would include, though not be limited to, houseboat and powerboat rentals, restaurants, cultural events (e.g., artisan shops, concerts in the cultural center), a campground, and hiking trails. The location of the dry storage area closer to the road in Alternative B than in Alternative C would detract from the aesthetics at the site. Alternative B would allow for pools and spas in the Marina Village and a wastewater treatment plant (WWTP) outside the development area boundary defined in the Antelope Point DCP. The proposed location of the WWTP also could affect unknown sensitive cultural resources and other land users in the area.

Other Alternatives Considered During the Planning Process but Rejected for Consideration in the EA

Alternative economic development strategies for the Navajo Nation were suggested during scoping, including the Navajo management and operation of the Wahweap Marina or alternative land uses, such as health care facilities, at Antelope Point. The Wahweap suggestion was not considered because the Wahweap Marina is not located on Navajo Nation lands, and acquisition of Wahweap facilities would be costly for the Navajo Nation. Alternative land uses at Antelope Point were not considered because the GMP and a Memorandum of Understanding between the National Park Service and Navajo Nation designate Antelope Point for development for recreational uses.

The National Park Service identified the construction of a pipeline for the disposal of wastewater from the Antelope Point site as an alternative to a wastewater treatment plant site. Although the pipeline could be located primarily within existing utility corridors along roads and highways, traffic delays during pipeline construction could occur, a large corridor of disturbance would be required, and construction-generated impacts on air quality, cultural resources, public safety, and transportation and traffic would be greater than those occurring under Alternatives B or C. Further, a pipeline alternative for disposing of wastewater would require development outside of the area designated for development and defined in the 1986 DCP/EA. The National Park Service requested that all development be within this area to ensure compliance with previous cultural resource and threatened and endangered species consultations with the State Historic Preservation Office (SHPO) and U.S. Fish and Wildlife Service (FWS), respectively. Therefore, installation of a wastewater pipeline from Antelope Point to Page was dismissed from further consideration.

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

Impacts that may be both beneficial and adverse:

The preferred alternative, Alternative C, will not impact prime or unique farmlands, wetlands, or floodplains. Negligible impacts will occur on threatened or endangered species, land uses, and population. Negligible-to-minor, short-term, adverse impacts from project construction and operations will occur on air quality, wildlife and wildlife habitat, land uses, and a low-income and minority population (the Navajo Nation).

The preferred alternative will result in short-term and long-term, minor, adverse impacts on vegetation and geology and soil resources, due to the disturbance from construction activities and the long-term use of the area by visitors and vehicles, plus the permanent loss of a small amount of vegetation and productive soil resources for paved areas and structures.

The preferred alternative will result in short-term, negligible, adverse impacts on surface water quality from runoff during construction. Long-term, negligible-to-minor, adverse impacts on surface water quality will occur from potential leaks in fuel and wastewater containment structures and additional boat use. Beneficial, long-term, minor impacts will occur from installation of toilets, curtailing waste along the shoreline that contaminates surface water.

Impacts on groundwater quantities from the preferred alternative will be long term, negligible to minor, and adverse based on the ability of the on-site wells to provide the water needed for the Project. Impacts on groundwater quality will be long term, minor, and adverse based on the risk of contamination from leaking wastewater containment structures and fuel storage tanks.

The preferred alternative will not affect any National Register-eligible properties. However, both the trucking and wastewater treatment plant options will require additional cultural resource surveys. Although one or more archeological sites might be present and could be adversely affected within the unsurveyed zones, the intensity of impacts will be minor, due to the potential for satisfactorily mitigating disturbance of such sites through avoidance and data recovery. Therefore, impacts on cultural resources will be permanent, minor, and adverse.

The preferred alternative will result in long-term, minor, and adverse impacts on public safety, as the new development would bring relatively large numbers of people to an area with opportunities for accidents. The potential for impacts would be mitigated by the provision of two new designated on-site safety facilities – a first aid station at the marina, and public safety buildings near the campground store.

The preferred alternative will add numerous non-natural sources of noise to the area that would exceed ambient levels, consistent with plans for Antelope Point, and these will not be expected to disrupt most visitor activities. The actions taken during construction and operation of the facilities will result in short-term and long-term, minor-to-moderate, adverse impacts on the natural soundscape. Impacts on the natural soundscape will be greatest during peak-season holiday weekends.

Construction activities at Antelope Point will include trucks and equipment entering the area; this traffic will be negligible when compared to visitor numbers. Increased visitors to the Antelope Point

Project site will occur from operation of the preferred alternative, resulting in increased traffic. Impacts on transportation and traffic will be greatest during peak-season holiday weekends. Planned improvements to transportation routes and installation of appropriate traffic control devices will reduce, long-term, adverse impacts to minor-to-moderate levels.

Design of the Project with consideration of colors and the cultural setting will minimize visual intrusions, including light pollution. Construction activities will generate dust temporarily, creating some visual intrusion to views from Lake Powell, causing short-term, minor, and adverse impacts. Based on the visibility of the proposed facilities within the surrounding area, the design features (mitigation measures) that will be implemented (including screening of the dry storage area), and lighting that will be added to the area, impacts on visual resources will be long term, minor to moderate, and adverse.

Impacts on Antelope Island from increased visitors also will be localized, minor, long term, and adverse. Employment generated by development of the Project will create a long-term, minor-to-moderate, beneficial impact on the area. Development of employee housing, if needed to meet Project employment needs, will result in long-term, but minor, beneficial impacts on housing conditions in the region. Recreational uses at Antelope Point will be enhanced by development of a campground and RV park, fishing docks, and maintenance of day-use and beach areas, resulting in localized, long-term, minor-to-moderate, beneficial impacts. Impacts on low-income and minority communities (i.e., the Navajo Nation) will be primarily long term, minor to moderate, and beneficial; impacts resulting from the sale of alcohol at Antelope Point will be expected to be long term, negligible to minor, and adverse.

The preferred alternative will involve the management of a relatively large amount of waste compared to the current use of the area. However, there will be mitigation and other standard provisions for safe and effective wastewater treatment or disposal, and solid or hazardous waste management, such that the long-term, adverse impacts related to waste generation and energy consumption would be kept to minor levels. Energy consumption will be limited through the use of efficient designs, use of specific building materials, and other best management practices.

Degree of effect on public health or safety:

As described above, the preferred alternative will draw large numbers of visitors to Antelope Point where there will be opportunities for accidents associated with recreational activities. The provision of two public safety facilities, one in the Marina Village and one near the campground store, will mitigate this potential, and improve public safety at Antelope Point because currently no public safety facilities are present.

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 project area does not include any identified prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. As described in the environmental assessment, there is potential for cultural resources in the Project area, though no major adverse effects were identified for the preferred alternative.

Degree to which effects on the quality of the human environment are likely to be highly controversial:

A public scoping meeting was held in Page, Arizona on September 14, 2001, and only 17 people attended, including a few Navajos. Almost all the comments and opinions about the project were supportive and positive. Less than 15 comments were received from the public during the formal 30-day comment period. Approximately 300 copies of the EA were distributed to organizations, government agencies, and individuals identified during the scoping and planning processes. Copies also were available on the Glen Canyon NRA Internet site, Headquarters Building, Carl Hayden Visitor Center and in the City of Page Library. Press releases were issued to local media informing the public of the availability of the document. During the review and comment period for the EA, approximately 55 e-mail and written comments were received. The letters and e-mails received reflected a limited number of concerns, primarily requesting the preparation of an environmental impact statement for development of Antelope Point and consideration of an alternative to designate Antelope Point for non-motorized recreation. Four of the comment letters received specifically referenced potential impacts identified in the EA.

Based on the implementation of mitigating measures, which are included in the EA, and the comments received from the public, there are no highly controversial environmental effects.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks:

There were no highly uncertain, unique or unknown risks identified during either preparation of the EA or the public review period.

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 action for this project will not set any precedent for the National Park Service. The preferred alternative will not have significant effects and does not represent a decision in principal about any future consideration elsewhere in the National Park System.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:

As described in the EA, the preferred alternative will result in impacts on air quality, geology and soils, water resources, vegetation, wildlife and wildlife habitat, special status species, cultural resources, public safety, the natural soundscape, transportation and traffic, visual resources, socioeconomic conditions, and waste management. Recently completed and reasonably foreseeable actions considered for identifying cumulative impacts include: maintenance and improvement activities in the Wahweap area; development of restrooms, a recreational vehicle dump station, and road paving at Lone Rock beach; the continuation of a 'test' initiative to provide pump-out facilities and services, and education to park visitors about protecting water quality; continued implementation of the Lake Powell Clean Water Program; upgrades to the Wahweap wastewater treatment plant; development of a Lakewide

Housing Master Plan; boat launch ramp and road improvements; and improvements to the road and entrance at Antelope Canyon.

The adverse impacts of the preferred alternative, in conjunction with beneficial and adverse impacts of other recently completed or reasonably foreseeable future actions, would result in both beneficial and adverse cumulative impacts on air quality, geology and soils, water resources, vegetation, wildlife and wildlife habitat, special status species, cultural resources, public safety, the natural soundscape, transportation and traffic, visual resources, socioeconomic conditions, and waste management. The intensity of cumulative effects would range from negligible to minor, with the potential for some seasonally moderate impacts. No individually insignificant but cumulatively significant impacts would occur.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:

Development of the preferred alternative, with implementation of the trucking option for wastewater, would include development of wastewater holding tanks and a wastewater transfer station in a location outside the area previously surveyed for cultural resources. There are two small archeological sites (AZ-K-5-1 and AZ-K-5-2) evaluated as eligible for the National Register located near the southern boundary of the development area, and final plans will be reviewed to ensure that these sites would not be adversely affected by Project construction. There appears to be little or no potential for historic buildings and structures, ethnographic resources, cultural landscapes, or museum objects. The wastewater trucking option of the preferred alternative would have some potential to adversely affect one or more recorded or unrecorded archeological sites. However, there would be good potential for making minor modifications to the Project design to avoid impacts or satisfactorily mitigating adverse effects through data recovery studies. Based on the potential for disturbing or degrading archeological resources, and the ability to mitigate effects, impacts on cultural resources would be permanent, minor, and adverse. Additionally, any increased visitation to the area from Project development would result in impacts on cultural resources that may be permanent, negligible to minor, and adverse.

A secondary option in the preferred alternative involves construction of a WWTP on a 20- to 25-acre site beyond the area that has been intensively inventoried for cultural resources. Based on the results of survey within the development area and along the access road, one or more archeological sites, with potential to yield important information, could be present within the area of potential effect of these Project elements. There appears to be little or no potential for historic buildings and structures, ethnographic resources, cultural landscapes, or museum objects. The Alternative C secondary WWTP option would have some potential to adversely affect one or more unrecorded archeological sites. However, there would be good potential for making minor modifications to the Project design to avoid impacts or satisfactorily mitigating adverse effects through data recovery studies. Based on the potential for disturbing or degrading archeological resources, and the ability to mitigate effects, impacts on cultural resources would be permanent, minor, and adverse.

In conjunction with previously proposed development at Antelope Point, cultural resources of a development area were inventoried and evaluated in consultation with the State Historic Preservation Office (SHPO), Navajo Nation Historic Preservation Department (NNHPD), and Advisory Council on Historic Preservation. There are two known archeological sites within the development area that have

not been mitigated, and there may be additional sites, as the entire development area has not been surveyed. The National Park Service recently consulted with the director of the NNHPD, who has been officially designated as a Tribal Historic Preservation Officer (THPO) since the previous consultation about proposed development at Antelope Point. The THPO concurred with the determination that the proposed development of a marina and resort at Antelope Point would have no adverse effect on significant historic properties within the previously surveyed area of potential effect.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat:

According to the U.S. Fish and Wildlife Service (FWS), there are 21 species in Coconino County that are listed as federally endangered or threatened, proposed for listing, candidate species, or species protected through conservation agreements. The Navajo Fish and Wildlife Department (NFWD) has recorded 14 special status species nearby, but none have been observed at Antelope Point (NFWD 2002). The Arizona Game and Fish Department (AGFD) lists approximately 80 species within Coconino County as special status. However, Arizona Game and Fish Department letter dated January 18, 2002, stated that the Department's Heritage Data Management System (HDMS) indicated no presence of any special status species in the project vicinity (four-mile radius of Antelope Point). In addition, AGFD stated that this project does not occur in the vicinity of any Designated or Proposed Critical Habitats.

Based on habitat conditions at Antelope Point, only two of the species identified by FWS and the NFWD would be expected to occur in the vicinity of the project site. Bald eagles (*Haliaeetus leucocephalus*) have been observed feeding at Antelope Island during the winter months, but no nest sites have been observed or recorded at Antelope Island or Antelope Point. California condor (*Gymnogyps californianus*) has been observed near the project site (at Page, Arizona) year-round; none have been observed or recorded at Antelope Point.

Neither species has been observed nesting at or near the Project site. Project construction would result in dust, noise, and other temporary disturbance in the Project site, which could indirectly impact these species. Due to the limited use of the area by these species, construction-generated impacts would be short term, negligible, and adverse. Operational impacts from the development would include increased visitor-generated noise from boats, vehicles, and other recreational uses, and potential trampling of vegetation. These indirect and adverse impacts on the special status species would be long term, negligible, and not likely to adversely affect the populations of either bird species. In formal USFWS terms, our determination is "*may affect, not likely to adversely affect*", which applies to both the bald eagle and the California condor.

In accordance with USFWS consultation number 2-21-02-I-044 (letter April 19, 2002), NPS and Navajo Nation will comply with the intent of all recommendations offered in the letter regarding measures to reduce the likelihood of adverse effects to condors and bald eagles from construction activities. Specifically, the following measures were recommended to reduce the likelihood of adverse effects to condors from construction activities:

- All on-site personnel should be informed to avoid interacting with condors and immediately contact appropriate NPS, Fish and Wildlife Service, or Peregrine Fund personnel if and when condors occur at the action area.

- If condors occur in the action area, activities would cease until the bird leaves on its own or until techniques are employed by permitted personnel which result in the condor leaving the area.
- If condors occur within one mile of the project area, any blasting will be postponed until the condors leave or are hazed by permitted personnel.
- To prevent water contamination and potential poisoning of condors, a fluid leakage and spill plan should be developed and implemented. The plan would define how each hazardous substance will be treated in case of leakage or spill.
- Open water sources should be covered when not in use (i.e. 'pumpkin' inflatable water storage tanks) to reduce the likelihood of condors drowning.
- The construction site would be cleaned at the end of each day the work was being conducted (i.e. trash disposed of, materials picked up) to minimize the likelihood of condors visiting the area.
- Users of the recreation area should be informed to avoid interacting with condors and to immediately inform appropriate personnel when condors occur there.

Whether the action threatens a violation of federal, state, or local environmental protection law:

This action violates no federal, state, or local environmental protection laws.

Impairment:

In addition to reviewing the list of significance criteria, the National Park Service has determined that implementation of the proposal will not constitute an impairment to Glen Canyon NRA's resources and values. This conclusion is based on a thorough analysis of the environmental impacts described in *the Antelope Point Marina and Resort Development Project EA*, the public comments received, relevant scientific studies, and the professional judgment of the decision-maker guided by National Park Service *Management Policies 2001*. Although the project has some minor, and even seasonally moderate, 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 project results in benefits to park resources and values, and opportunities for their enjoyment, with no impairment.

Public Involvement

Approximately 300 project scoping brochure copies were distributed for public review to various government agencies, private organizations, and individuals providing project scope details and a public meeting announcement for September 14, 2002. The public scoping meeting was held in Page, Arizona. Less than 15 comments were received from the public during the formal 30-day scoping comment period. The EA was made available for public review and comment during a comment period that extended from March 18 to May 3, 2002. Approximately 300 copies of the EA were distributed for public review to various government agencies, private organizations, and individuals identified during the scoping and planning processes. Copies also were available on the Glen Canyon NRA Internet site, Headquarters Building, Carl Hayden Visitor Center and in the City of Page Library. Press releases were issued to local media and radio spots were conducted informing the public of the availability of the document. During the review and comment period for the EA, a public meeting was held in Page, Arizona and approximately 55 e-mail and written comments were received. The letters and e-mails received reflected a limited number of concerns, primarily requesting the preparation of an

environmental impact statement for development of Antelope Point and consideration of an alternative to designate Antelope Point for non-motorized recreation. The FONSI and errata sheets will be sent to everyone who commented on the EA.

Conclusion

The preferred alternative does not constitute an action that normally requires preparation of an Environmental Impact Statement (EIS). The preferred alternative will not have a significant effect on the human environment. Negative environmental impacts that could occur are minor or moderate in intensity and primarily temporary in effect. There are no significant or unmitigated adverse impacts on public health, public safety, threatened or endangered species, sites or districts listed 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, 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, it has been determined that an EIS is not required for this project and thus will not be prepared.

NATIONAL PARK SERVICE

Recommended by: Kitty L. Roberts
Kitty L. Roberts, Superintendent
Glen Canyon National Recreation Area

6/25/02
Date

Approved by: Karen P. Wade
Karen P. Wade
Intermountain Regional Director
National Park Service

7/03/02
Date

NAVAJO NATION

Recommended by: Edward S. Richards
Edward S. Richards, Executive Director
Division of Economic Development
Navajo Nation, Window Rock, Arizona

7/9/02
Date

Approved by: Elousie Chicharello
Elousie Chicharello, Director
Navajo Regional Office
Bureau of Indian Affairs

7/22/02
Date

Errata Sheets
Antelope Point Marina and Resort Development Project EA
Glen Canyon National Recreation Area

Substantive comments on the Antelope Point Marina and Resort Development Project Environmental Assessment (EA) focused on the following topics: the planning process, other alternatives consideration and preparation of an EIS for the Project; concerns about impacts to resources such as natural, cultural, economic, visitor use, safety, etc.; Project need and miscellaneous issues; concerns that the Project would not benefit the Navajo Nation; and designation of Antelope Point as a non-motorized area. Many of these comments did not require a change in the text of the EA, however, those that did are reflected the **Changes in the Environmental Assessment Text** section below. The combination of the EA and the errata sheets form the complete and final record on which the FONSI is based.

Although there were relatively few substantive comments identified, the **Response to Comments** section of these errata sheets also address comments received that indicate some confusion or misconception about the project. Since these comments did not increase the degree of impact described in the EA, responses are provided through the use of errata sheets without changes to the EA text. The responses provided below are intended to clarify and explain in more detail those topics where public confusion existed or where inaccurate information was disseminated causing misperceptions.

CHANGES IN THE ENVIRONMENTAL ASSESSMENT TEXT

Section 1.2.1, Page 1-6, last sentence: Replace *"The purpose of this EA is to analyze site-specific impacts that would result from the Project."* With: "The 1970 MOA among the Navajo Nation, National Park Service, BIA, and BOR specifically recognizes that in transferring lands to the United States (now contained in the Glen Canyon NRA), that were previously within the boundaries of the Navajo Reservation, the Navajo Nation retained certain rights to those transferred lands. These rights include the ability to realize the economic benefits of tourism-related development of these lands. The Antelope Point site is part of transferred lands. Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by Department of Interior agencies be explicitly addressed in environmental documents. Antelope Point is itself an Indian trust resource, along with the water in Lake Powell. This EA was conducted jointly by the Navajo Nation and NPS with the purpose to address all environmental, social and socioeconomic impacts."

Section 3.8.5, page 3-9, first paragraph: After the 7th sentence, add: "Per 36 CFR, Part 880.4, no further action is required for sites that are not eligible for inclusion to the National Register."

Section 3.8.5, page 3-9, second paragraph: After 2nd sentence, add: "Because the Navajo Nation recently established their own Tribal Historic Preservation Office (THPO), NPS requested and received their concurrence on all Section 106 activities related to Antelope Point with a letter signed and dated by Alan Downer, Director on November 13, 2001. This concurrence includes tribal consultation related to ceremonial sites. NPS also received a letter dated June 19, 2002, from the Navajo Nation Traditional Culture Program Anthropologist stating that upon cross-referencing the

Historic Preservation Department Traditional Culture Program (HPD-TCP) Sacred Database, the Navajo Nation does not have any concerns at this time with the proposed project."

Section 3.8.5, Page 3-9, second paragraph: Start new paragraph with "If the tribes subsequently identify..."

Section 4.1.2, page 4-4, after the last bullet: Add these paragraphs in order:

"The National Park Service has jurisdiction to authorize and restrict further development on lands within Glen Canyon NRA, which includes the shoreline areas below the elevation of 3,720'. The Navajo Nation has jurisdiction for lands above 3,720'. Based on a land use plan for the LeChee Chapter in 1993 (approved in 1994), Antelope Point development was incorporated into the Final Area Concept of the plan. The Final Area Concept also provided a recreational corridor along Antelope Creek, an industrial area east of the Navajo Generating Station, residential growth south of the Navajo Generating Station, as well as a 350-foot-wide commercial corridor along the entry road to Antelope Point. In 1986, 1,195 acres were withdrawn for commercial use with the approval of Resolution ACAU-139-86. The withdrawn land was located north of SR 98 and south of the Antelope Point development area."

"Despite the LeChee Land Use Plan and the area being planned for commercial uses, the land is currently used for grazing. Prior to any commercial development, permission would need to be granted from the current user. Any commercial development also would require environmental clearances (through the BIA) and approval from the Navajo Nation Division of Economic Development. Development outside this area would require an additional withdrawal of land for commercial uses and subsequent approval from the BIA and Navajo Nation Division of Economic Development. Since 1986, no proposals or conceptual plans for development in this area have been prepared by or presented to the Navajo Nation for this area. The 1986 DCP Land Requirements section (pp. 51-53) recommends that an additional 1,380 acres along both sides of the road corridor be designated as a zone of planning concern as part of the Antelope Point Project. The purpose of this recommended zone of concern would be to allow for a visual protective zone along the Antelope Point Road corridor. This would help to insure attractive open-space lands along the road, provide the visitor with a fitting entrance to the Antelope Point complex, and preclude incompatible land uses from locating along the road corridor. It stated that unconstrained development along this corridor could severely diminish the attractiveness of the marina development and reduce its economic viability. These DCP recommendations were prepared and approved jointly by the Navajo Nation and the National Park Service in March 1986. Because of these constraints and the recommended non-development zone in the 1986 DCP, additional development is not considered reasonably foreseeable at this time."

Section 4.4.4, page 4-18, third paragraph: After the 3rd sentence, add: "To ensure that these levels do not rise, the National Park Service is planning to institute a water quality monitoring and testing program. If measurements from this program find that hydrocarbon levels in the lake exceed current levels, appropriate action will be taken. In addition, Antelope Holdings LLC has committed to purchase only vessels that comply with the U.S. EPA 2006 standards, which would minimize impacts on water quality."

Section 2.8, page 2-34, end of page: Add: 2.8.5 Special Status Species Preventive and Protective Measures

In accordance with USFWS consultation number 2-21-02-I-044 (letter April 19, 2002), NPS and Navajo Nation will comply with the intent of all recommendations offered in the letter regarding measures to reduce the likelihood of adverse effects to California condors and bald eagles from construction activities. Specifically, the following measures were recommended to reduce the likelihood of adverse effects to condors from construction activities:

- All on-site personnel should be informed to avoid interacting with condors and immediately contact appropriate NPS, Fish and Wildlife Service, or Peregrine Fund personnel if and when condors occur at the action area.
- If condors occur in the action area, activities would cease until the bird leaves on its own or until techniques are employed by permitted personnel which result in the condor leaving the area.
- If condors occur within one mile of the project area, any blasting will be postponed until the condors leave or are hazed by permitted personnel.
- To prevent water contamination and potential poisoning of condors, a fluid leakage and spill plan should be developed and implemented. The plan would define how each hazardous substance will be treated in case of leakage or spill.
- Open water sources should be covered when not in use (i.e. 'pumpkin' inflatable water storage tanks) to reduce the likelihood of condors drowning.
- The construction site would be cleaned at the end of each day the work was being conducted (i.e. trash disposed of, materials picked up) to minimize the likelihood of condors visiting the area.

The Navajo Nation and NPS will also educate visitors to the recreation area to avoid interacting with condors and to immediately inform appropriate personnel when condors occur there. Specific mitigation measures provided by USFWS will be incorporated into contract language that will require the contractor (and Navajo Nation and NPS personnel as well) to comply with the preventive and protective measures proposed.

Section 4.7.5, page 4-29, end of page: Add paragraph: "The National Park Service annually monitors bald eagle use of Glen Canyon NRA which includes Antelope Island and has found that bald eagles utilize Antelope Island only during the winter and early spring and do not nest at this location. Due to the low number of visitors during that time period, the potential for disturbing eagles is limited. With the development of the preferred Alternative (Alternative C), visitors during the winter would not be expected to greatly increase. Rather than implement a buffer zone, National Park Service would prefer to continue monitoring the presence of bald eagles within the area. If through these surveys, bald eagles appear to be affected by visitor use, the NPS would take appropriate action to restrict visitor access to these roosting and foraging sites."

RESPONSE TO COMMENTS

The planning process, other alternatives consideration and preparation of an EIS for the Project

Comment 1: The General Management Plan (GMP) [for Glen Canyon National Recreation Area (NRA)] lacks substantive, relevant data and analysis of the purpose, and need for a marina at Antelope Point. Because the GMP lacks important information that would inform current planning efforts for Antelope Point, the National Park Service must address these missing elements in detail within the Antelope Point National Environmental Policy Act (NEPA) process.

Response 1: The current planning efforts, based in part on the GMP, include consideration of various studies, management programs, and data. The potential for development at Antelope Point, as desired by the Navajo Nation, was initially recognized in a Memorandum of Agreement (MOA) among the Navajo Nation, National Park Service, Bureau of Reclamation, and Bureau of Indian Affairs. As stated in the EA (in Section 1.1), the MOA was intended to foster cooperative management and development of the Glen Canyon NRA and adjacent Tribal lands, allow for the Navajo Nation to develop areas contiguous to Lake Powell for recreational use, and provide for cooperative planning, administration, and development of such sites.

The potential for development at Antelope Point was specifically documented in the Glen Canyon NRA GMP (NPS 1979), which designated Antelope Point as a potential development site (though areas above 3,720 feet in elevation are outside the NRA boundaries). The 1983 "Economic Feasibility Study - Marina Complex" document assessed the potential for development at six potential sites and concluded that the other five sites were not suitable for a marina complex development. In 1986, National Park Service prepared the Antelope Point Development Concept Plan and Environmental Assessment (DCP/EA) to determine what range of commercial and recreational facilities should be permitted at Antelope Point. Based on the development concepts approved in the 1986 DCP/EA, more specific plans have been developed for Antelope Point, which have allowed National Park Service to provide more detailed analyses on the environmental consequences associated with development at Antelope Point. One such study is the 1987 *"The Carrying Capacity of Lake Powell - A Management Analysis of Capacity For Boater Recreation"* which included the development of a marina at Antelope Point in its carrying capacity analysis.

Beyond these planning documents, more information was gathered through discussions among National Park Service resource specialists regarding issues/topics that needed to be addressed in the EA. Information specific to individual resource topics has been presented in the EA (e.g., visitation statistics, data gathered through the Glen Canyon Water Quality Program, air quality information, current land uses), as relevant, with the sources of information cited.

Comment 2: Because of the outdated GMP, the Antelope Point EA failed to analyze possible alternative uses for the site (other than the marina).

Response 2: The EA included analyses of environmental consequences associated with (1) No Action (Alternative A), which would leave Antelope Point only primitively developed, with few visitor services; (2) the Proposal submitted by Antelope Holdings LLC (Alternative B), which provided several facilities outside the designated development area; and (3) the Preferred Alternative (Alternative C), which was based on the Proposal, but included modifications to reduce potential environmental consequences.

Development of alternative land uses, such as health care facilities as suggested by one commenter, would not meet the purpose and need of the Project to cooperatively manage the shoreline areas of Lake Powell consistent with the Navajo Nation's desire to develop these areas for recreational use. Therefore, alternative land uses, other than developments serving recreational purposes, were not considered in this EA.

Comment 3: The Diné Medicinemens Association, Inc. has proposed that National Park Service study the possibility of establishing a traditional healing center for Navajo people and others, rather than a marina, on the Antelope Point project site. National Park Service must consider this proposal in detail.

The Diné Medicinemens Association, Inc. represents the interests of traditional religious healers and cultural practitioners, whose interests must also be protected and respected under Executive Order 13007, Indian Sacred Sites (May 24, 1996). The Diné Medicinemens Association, Inc., and other Navajo groups, could contribute significantly to a new GMP, whereas such voices were absent 23 years ago. This would seem particularly important in the case of Antelope Point. The alternatives some Navajo interests have proposed were never contemplated by the 1979 GMP, and not inconsistent with NRA goals. Such uses might include traditional healing centers, retreat/conference center and educational facilities for both local Navajo, and tourists alike.

Response 3: The Antelope Point Marina and Resort Development Project is a joint project between the Navajo Nation and National Park Service. Though the Diné Medicinemens Association, Inc. may represent the interests of some Navajo, they do not represent the entire Navajo Nation. Full and complete consultation with the official representatives of the Navajo Indian Tribe failed to identify any of the concerns brought forward by the Diné Medicinemens Association. Additionally, efforts were made by the Navajo Nation Division of Economic Development and National Park Service to involve members of the Navajo Nation in the project by meeting with the six Navajo Chapters, which would be most likely affected by the project due to their proximity to Antelope Point. With respect to the uses that may be considered for Antelope Point, the preferred alternative (Alternative C) does not limit specific uses of the facilities proposed. Alternative C provides opportunities for a retreat and conference center through the hotel and for educational facilities through the Cultural Center.

Comment 4: The EA discounts the noise impacts as they relate to the objective of a marina resort operation, ...a revised GMP reflecting contemporary issues would generate a greater range of alternatives to be investigated in and around Antelope Point.

Response 4: The current noise/activity level spectrum on Lake Powell ranges from high to low depending on season and time of day. During the off season (October – April), and at night during the heavy use season, noise levels are at a minimum lake-wide. During the heavy use periods, up to 70% of the lake is classified as low to medium noise levels. The proposed development at Antelope Point does not significantly affect the overall sound spectrum on Lake Powell. The analysis of noise impacts presented in the EA recognized that minor-to-moderate and adverse impacts would occur as a result of increased visitor use of the area, but that these increased uses would be consistent with what has been planned for Antelope Point in multiple documents including the GMP (NPS 1979), the Economic Feasibility Study (NPS 1983), the Antelope Point DCP/EA (NPS 1986), and the Carrying Capacity Study (NPS 1987).

The GMP identified Antelope Point as a proposed marina development location, located in the Development Zone. Development zones occupy less than 5% of the total acreage of Glen Canyon NRA and are expected to have higher noise levels than the other three planning zones due to the nature of their purpose to support human-related activities. Over 95% of the NRA remains to offer a range of alternatives.

Comment 5: Through a revision of the GMP, National Park Service should identify and characterize the range of alternatives available within the NRA to provide accessible and adequate quiet zones, such as may be available around Antelope Point.

Response 5: The current General Management Plan (GMP) established four planning use zones which characterize the goals, objectives and management strategies required to maintain a range of different visitor experiences. Recent visitor survey results indicate that overall visitor satisfaction is very high at Glen Canyon NRA. One survey question specifically asked if the visitor felt there was "too much noise on the lake" and the average response was 1.6, with a scale of 1= no problem, 2=slight problem, 3=moderate problem, 4=serious problem and 5= very serious problem. Hence, when the National Park Service determines that the current General Management Plan (GMP) is no longer adequate, these issues may be identified as needing analysis.

Comment 6: In the GMP for Glen Canyon NRA, Antelope Island is zoned for "wilderness," i.e., non-motorized use. National Park Service has not analyzed expected impacts that the Antelope Point marina would have on its naturalness, wildlife, and primitive camping at Antelope Island.

Response 6: In considering wilderness anywhere where the lake abuts the Recreation and Resource Utilization (RRU) zone, it was assumed that spillover noise would occur. Antelope Island is already affected by boat noise on all sides. When the cut is open, noise is concentrated on the north side. When the cut is closed, noise concentrates on the south side. The Antelope Point Development Project will cause a slight shift in overall noise patterns during the times the cut is open shifting a small portion of the north-side noise to the south. The island will be mostly quiet during the off season (October – April) and during the nighttime hours during the heavy use season.

As analyzed in the EA in Section 4.13, Antelope Island would likely experience an increase in visitation under the Preferred Alternative (Alternative C). However, National Park Service anticipates that most boaters originating from Antelope Point would travel farther than across the channel, but National Park Service would monitor Antelope Island (as stated in the EA) to enforce applicable use regulations, such as the prohibition of motorized vehicle use at and on Antelope Island. Adverse impacts on Antelope Island would be long term, but minor in intensity.

Comment 7: NEPA requires analysis of reasonably foreseeable consequences of projects and the cumulative effects of specific impacts over time. Development of a new marina would likely lead to additional construction of tourist-oriented business and industry in the vicinity of Antelope Point. For example, the act of providing utility services to Antelope Point—an area that is currently not served by utilities—will create opportunities for additional development and land use changes outside the project boundary, changes that would be very unlikely to occur without the project.

Response 7: As stated in the EA (in Section 2.3.6), the infrastructure improvements proposed at Antelope Point will include a potable water system (served by wells at Antelope Point); underground electrical and telephone lines; and, a wastewater system, which would likely include trucking wastewater to the wastewater treatment plant in Page, Arizona for treatment. Though it would be possible for electrical and telephone service to be provided outside the project boundaries, no provision has been proposed to extend these services into other areas. The water and wastewater systems would be developed within the Antelope Point Project site, which would not need water and/or wastewater infrastructure along the access road outside the project boundaries. Additionally, the water and wastewater systems that have been proposed would be designed to meet the expected peak capacities of the proposed facilities (subject to regulatory requirements, including emergency storage capacities); surplus capacity is not anticipated. Therefore, even if electrical and telephone service were available,

adequate water and/or wastewater service would not be available for additional development, and this additional development would not be reasonably foreseeable.

Comment 8: The Navajo Nation and LeChee Chapter are reportedly studying the feasibility of building a casino and shopping center along the Antelope Point access road. Such construction, if undertaken, would likely be feasible only if the marina were built.

Response 8: Currently, the Navajo Nation does not allow for gaming, except for a pilot project in Canoncito Chapter. The Navajo Nation did conduct a feasibility study (Market Partners 1994) to address gaming, which identified five potential sites in the City of Page/LeChee area. However, for a casino to be developed in this area, the Navajo Nation Council would need to decriminalize gaming, a gaming compact would have to be negotiated with the State of Arizona, and approval would be needed from the National Indian Gaming Commission. None of these steps have been taken; therefore, development of a casino was not considered a reasonably foreseeable future activity. Furthermore, the 1986 DCP outlines land use controls on pages 51-53 that would prevent locating a casino in this area.

Comment 9: The EA has not identified the land-use control and regulatory mechanisms that may exist, if any, to limit sprawling strip development in the vicinity of Antelope Point. By approving this project, National Park Service would be effectively facilitating the development of many additional acres of land on the approach to Antelope Point. National Park Service must investigate and evaluate these reasonably foreseeable consequences of the Antelope Point Project. Issues such as water supplies, power supplies and sewage disposal (that National Park Service must study for the marina proper) must also be considered in light of likely adjacent development.

Response 9: The National Park Service has jurisdiction to authorize and restrict further development on lands within Glen Canyon NRA, which includes the shoreline areas below the elevation of 3,720'. The Navajo Nation has jurisdiction for lands above 3,720'. Areas along the entry road and SR 98 would be under the jurisdiction of the Navajo Nation. Based on a land use plan for the LeChee Chapter in 1993 (approved in 1994), the Antelope Point development was incorporated into the Final Area Concept of the plan. The Final Area Concept also provided a recreational corridor along Antelope Creek, an industrial area east of the Navajo Generating Station, residential growth south of the Navajo Generating Station, as well as a 350-foot-wide commercial corridor along the entry road to Antelope Point. In 1986, 1,195 acres were withdrawn for commercial use with the approval of Resolution ACAU-139-86. The withdrawn land was located north of SR 98 and south of the Antelope Point development area.

Despite the LeChee Land Use Plan and the area being planned for commercial uses, the land is currently used for grazing. Prior to any commercial development, permission would need to be granted from the current user. Any commercial development also would require environmental clearances (through the BIA) and approval from the Navajo Nation Division of Economic Development. Development outside this area would require an additional withdrawal of land for commercial uses and subsequent approval from the BIA and Navajo Nation Division of Economic Development. Since 1986, no proposals or conceptual plans for development in this area have been prepared by or presented to the Navajo Nation for this area. The National Park Service anticipates that the Antelope Point Project would be constructed over several years and would not be completely built out for about five years. If additional commercial development were to occur, National Park Service believes that it would occur after the Antelope Point Project is completely built out and operating, which would be at

least five years away. Because of the lack of specific or conceptual plans for development and the potential timing for additional facilities, additional development has not been considered reasonably foreseeable at this time.

The 1986 DCP Land Requirements section (pp. 51-53) recommends that an additional 1,380 acres along both sides of the road corridor be designated as a zone of planning concern as part of the Antelope Point Project. This area would be bounded on the north by the project site, on the east by the Navajo Generating Station lease, on the south by State Route 98, and on the west by the Antelope Creek. The purpose of this recommended zone of concern would be to allow for a visual protective zone along the Antelope Point Road corridor. This would help to insure attractive open-space lands along the road, provide the visitor with a fitting entrance to the Antelope Point complex, and preclude incompatible land uses from locating along the road corridor. It stated that unconstrained development along this corridor could severely diminish the attractiveness of the marina development and reduce its economic viability. It was recognized that the designation of the 1,380-acre zone of planning concern involves significant issues and concerns of local, chapter members and representatives, and the Navajo Nation as a whole. These DCP recommendations were prepared and approved jointly by the Navajo Nation and the National Park Service in March 1986.

Comment 10: National Park Service must explain the management rationale that justifies placing a marina in such proximity to an area [Antelope Island] that is to be managed in an undeveloped state.

Response 10: Wilderness recommendations were identified in the GMP during its development. The potential impact of Antelope Point development on Antelope Island was considered at that time. The rationale for placing a marina at Antelope Point, in proximity to Antelope Island is to comply with the 1970 MOA with the Navajo Nation for development along the southern shoreline of Lake Powell for recreational purposes and to implement the objectives and plans of the 1979 GMP and 1986 DCP/EA.

Comment 11: National Park Service should endeavor to improve its outreach and public involvement efforts related to the Antelope Point project.

Response 11: CEQ regulations for implementing NEPA (Section 1506.6) require that agencies, including the National Park Service make diligent efforts to involve the public in preparing and implementing their NEPA procedures. The regulations state that agencies shall provide public notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected; and, hold or sponsor public hearings or public meetings whenever appropriate or in accordance with statutory requirements applicable to the agency. Other public involvement requirements include soliciting appropriate information from the public and explaining agency procedures where interested persons can get information or status reports on elements of the NEPA process.

With respect to the Antelope Point Project, the National Park Service and Navajo Nation conducted various outreach and public involvement activities. National Park Service contributed to several newspaper articles in regional and local newspapers (*The Arizona Republic* and *The Lake Powell Chronicle*) and issued four press releases related to the Project (April 20, 2001 to announce receipt of the proposal from Antelope Holdings; August 28, 2001 to announce the public scoping workshop; March 18, 2002 to announce availability of the EA and public workshop; and, April 24, 2002 to announce comments would be accepted on the EA until May 3, 2002). National Park Service staff participated in several radio spots on a local radio station to discuss information and meeting

announcements regarding the Project. Project information was made available on the Glen Canyon NRA website (with the exception of December 9, 2001 through February 15, 2002). The Navajo Nation and National Park Service provided a scoping brochure to over 300 individuals and agencies and hosted a public scoping workshop in Page, Arizona on September 14, 2001. The Navajo Nation and National Park Service mailed approximately 300 copies of the EA and hosted a public workshop during the review period on March 25, 2002. In addition, during the preparation of the EA, the National Park Service and the Navajo Nation Economic Development Division participated in Chapter meetings with six Navajo Nation Chapters to provide information regarding the Project and receive input from those Chapters.

Comment 12: While open-water areas may offer some advantages in terms of diluting petroleum pollution, the narrow channel at Antelope Point and the anticipated high traffic volume may lead to significant accumulations of petroleum on or in the water, which may be less likely to disperse than more open areas. If such impacts are sufficient to warrant an EIS on personal watercraft(s), then certainly a similar level of analysis should be conducted for a major marina development as proposed for Antelope Point. Additionally, noise is an issue being addressed in the PWC EIS. Noise should receive no less consideration for a major marina development, yet here again National Park Service has relegated the issue and the entire analysis to EA status.

Response 12: The decision by National Park Service to prepare an EIS on PWC was based primarily on the national attention given to the issue of PWC in national parks and the public controversy surrounding their use. Similar national attention and controversy did not exist for the Antelope Point Project and previous analyses indicated that the potential for major impacts was not likely. Therefore, National Park Service initiated the National Environmental Policy Act compliance process with the preparation of an EA, with the intent to prepare an EIS had major impacts been assessed. Water quality measurements made in the summer of 2001 indicate that hydrocarbon pollutant levels in heavily used boating areas near Wahweap were well below state and EPA standards. We predict that such levels would likely occur in the concentrated boating areas around Antelope Point. The NPS expects to initiate a water quality testing program in the summer of 2003 to ensure that the current water quality levels are protected.

Comment 13: Given the extensive and controversial nature of the project impacts expressed herein [in the comment letter], National Park Service is required by Council on Environmental Quality (CEQ) guidelines to abandon the EA process and conduct an EIS on the Antelope Point Marina and Resort Development Project. There is clear, current precedent for doing so. As noted above, Glen Canyon NRA is currently preparing an EIS for PWC management. It is difficult to imagine a rationale that would justify an EIS for jet skis while preparing only an EA for a large marina complex. A decision by National Park Service to move forward with an EA and Finding of No Significant Impact, without preparing an EIS for this complex project would appear to be an arbitrary and capricious act by the agency.

Response 13: As stated in response 12, the decision by National Park Service to prepare an EIS on PWC was based primarily on the national attention given to the issue of PWC in National Parks and the public controversy surrounding their use. The preparation of the EA for the Antelope Point project is part of the NEPA process, which would have required preparation of an EIS if significant impacts been expected from the project. However, impacts from the project would range from minor to moderate, with moderate impacts generally occurring over holiday weekends during the summer. The

Navajo Nation and National Park Service does not believe that the Antelope Point Marina and Resort Development Project to be controversial (which also could require preparation of an EIS) because of the low level of agency and public interest (mostly supportive in nature) expressed during scoping in September and October 2001.

Concerns about impacts to resources such as natural, cultural, economic, visitor use, safety, etc.

Comment 14: Contrary to the EA's conclusions, a major development project, such as the Antelope Point marina, risks degrading water quality and air quality, significantly increasing noise and visitor crowding, and decreasing opportunities for solitude and low-impact, non-motorized recreation.

Response 14: The analyses presented in the EA indicate that adverse impacts would occur on water quality, air quality, and the natural soundscape, but none of these impacts are anticipated to be significant; impacts on these resources would be minor to moderate, with moderate impacts occurring only from noise generated during periods of peak use (i.e., holidays during the summer). As Lake Powell spans 186 miles within two states and includes more than 1,900 miles of shoreline and, National Park Service believes that with only six marinas (including the Antelope Point Marina), ample opportunities exist for solitude, low-impact, non-motorized recreation.

Comment 15: Given the growing impairment of park resources caused by motorboats, the burden is on National Park Service to explain how each recreational alternative considered in the broader sense, Antelope Point, Hite Marina expansion, etc., complies with the non-impairment standard.

Response 15: Our resource analysis indicated no resource impairment, with most resources only negligibly affected by the project. The National Park Service conducts environmental analyses on all projects like the Antelope Point development and the update of the Hite Marina development concept plan. Since 2001, every environmental analysis consists of a cumulative impact analysis section that takes into account all other projects' impacts and their cumulative effects on the environment. Every environmental analysis provides an impairment determination for each resource topic under every alternative.

Comment 16: The EA has not demonstrated how the Navajo Nation's desires for a revenue stream from a project that would negatively impact Glen Canyon NRA's shoreline and waters, against National Park Service's legal duty to protect Park resources from impairment.

Response 16: The Antelope Point Marina and Resort Development Project is a joint venture between the Navajo Nation and the National Park Service. Based on the analyses presented in the EA, development of the project would cause no significant impact or impairment of Glen Canyon NRA or Navajo Nation resources. Federal, state, local and Navajo Nation tribal environmental laws and regulations are all referenced as compliance requirements, in addition to numerous best management practices and best available technology mitigation measures that will ensure that adverse impacts to water quality are minimized to the extent possible.

Comment 17: The EA asserts that only two ceremonial sites have been identified, and that both do not qualify for National Register of Historical Places, as they were not used prior to the inundation of Glen Canyon. Further, the EA states "Despite this determination, an attempt was made to accommodate the

needs of the Diné Medicineman's [sic] Association, Inc. and further consultation identified an acceptable alternative to the original ceremonial location."

The Diné Medicinemens Association, Inc. has identified numerous ceremonial and sacred sites in and around the project area. The Association's president, Mr. Thomas Morris, is unaware of any contact with Antelope Point planning officials regarding the applicability of these or any other sites to the National Register of Historic Places, nor discussions regarding "suitable" alternatives.

National Park Service must consult with all appropriate traditional practitioners, including the Diné Medicinemens Association, Inc. to address these issues. NPS must explain how it intends to comply with Executive Order 13007, Indian Sacred Sites (May 24, 1996), that requires agencies including National Park Service to "... accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and ... avoid adversely affecting the physical integrity of such sacred sites." By dramatically increasing visitation to the area, it will become very difficult for National Park Service to accomplish the objectives of the Executive Order. National Park Service must avoid damaging any such sites and provide a range of alternatives for ensuring the sites' protection under a range of alternative development scenarios for the project. National Park Service should publish a full accounting of the consultation efforts and mitigation plans for archeological, cultural and sacred sites.

Furthermore, it is the position of the Diné Medicinemens Association, Inc. that the Antelope Point Marina Resort Development not be built, but that a traditional healing center be established at that location should National Park Service be interested in assisting with sustainable economic development on the Navajo reservation.

Response 17: Two ceremonial sites were identified during the compilation of the Ethnohistory Report published in "The Antelope Point Survey with an Ethnohistoric Report of Antelope Point" prepared by Larry Benallie and Dennis Gilpin in November, 1984. This consultation was conducted with Herman Tso, then-president of the LeChee Chapter, and with four other local families who have had long-term occupation in the area.

A letter dated January 8, 1987 and signed by Anthony L. Klesart, Director Navajo Nation Archeology Department makes the determination that the sites are not eligible for listing on the National Register of Historic Places. The letter states that "this conclusion is an obvious one, derived simply from the results of our ethnographic and literature studies as reported [in the above referenced document]." Per 36 CFR, Part 800.4, no further action is required for sites that are not eligible for inclusion to the National Register, however, the National Park Service continued consultation with members of the Navajo Medicinemen's Association who identified alternative beach sites where they could continue to practice their traditional uses (Pauline Wilson, Tribal Liaison, personal communications).

Because the Navajo Nation recently established their own Tribal Historic Preservation Office (THPO), Glen Canyon requested and received their concurrence on all Section 106 activities related to Antelope Point with a letter signed and dated by Alan Downer, Director on November 13, 2001. This concurrence includes tribal consultation related to ceremonial sites. A copy of this letter is available in the administrative record files. NPS has consulted with the appropriate practitioners in the local area as described in the above referenced document and has provided a summary of the consultation efforts involved in the project and an administrative record of these efforts is also available in the project files. The mitigation plan, data recovery report, and other consultation documentation are also available in the administrative record files.

Comment 18: The EA gave no consideration to the unique geography associated with Antelope Point, as it may affect public safety...The potential for serious visitor safety conflicts and boating accidents at Antelope Point appears to be great.

Response 18: As presented in the EA (in Table 2-2), the Preferred Alternative (Alternative C) would include a designated wakeless area in the vicinity of Antelope Point and the potential for breakwaters if needed. As with all designated wakeless areas in Glen Canyon NRA, wakeboarding and water skiing would be prohibited. If swimming were to occur, National Park Service would designate an area for swimmers away from the immediate marina area. Therefore, a large number of visitor safety conflicts are not anticipated.

Comment 19: National Park Service must assess the expected near-term and long-term (cumulative) impacts on visitor safety and public health, resulting from funneling a large number of disparately sized motor vessels into a narrow channel that is frequently used by families and children for water contact sports.

Response 19: Various sizes and types of vessels, as well as various activities, currently use the channel. Water contact sports (e.g., water skiing and wakeboarding) would be prohibited in the wakeless zone around the marina, and swimming would be limited to designated areas, consistent with current management at Glen Canyon NRA. As discussed in the EA (in Section 4.9), only minor short-term and long-term impacts on public safety would be anticipated from the increased number of visitors in the area. Additionally, improvements to public safety would occur as a result of the provision of two new public safety facilities at Antelope Point (where currently there are none), which would be staffed by National Park Service and the Navajo Nation.

Comment 20: In addition to its obligation to protect park resources, including water bodies from non-impairment, National Park Service has an obligation to ensure the protection of water quality at Glen Canyon NRA for downstream users.

Response 20: As stated in the EA, impacts on water quality would be minor due to the limited amount of sedimentation expected during construction and the low potential for contamination in Lake Powell from wastewater system infrastructure (i.e., storage tanks). Hydrocarbon emissions from additional vessels are not expected to significantly change current hydrocarbon levels in the lake near Antelope Point except possibly near the fueling docks. To ensure that these levels do not rise, the National Park Service is planning to institute a water quality monitoring and testing program. If measurements from this program find that hydrocarbon levels in the lake exceed current levels, appropriate action will be taken. In addition, Antelope Holdings LLC has committed to purchase only vessels that comply with the U.S. EPA 2006 standards, which would minimize impacts on water quality.

Comment 21: National Park Service must consider the downstream impacts resulting from polluted runoff from streets, parking lots, and lawn areas entering the reservoir, which may percolate directly into groundwater.

Response 21: Since NPS does not anticipate significant changes to lake-water quality, the downstream effects would be minimal as well. Federal and state permitting requires measures to be taken to minimize stormwater runoff. As described in the EA (in Section 4.4), compliance with all federal, state and local regulations is required and best management practices, including engineering controls,

would be implemented to minimize runoff into Lake Powell. Due to the limited precipitation and low levels of irrigation proposed for the Project, percolation of contaminants into groundwater would not be anticipated.

Comment 22: The EA did not sufficiently address the long-term human health impacts of prolonged exposure to Navajo Generating Station power plant emissions on visitors and marina employees; especially those who work a significant portion of their time outdoors, where they would be considered to be at higher risk from long-term exposure. The comment specifically mentioned mercury as a concern.

Response 22: As stated in the EA (in Section 3.1), ambient air quality in Glen Canyon NRA is well below the federal limits for each criterion pollutant measured. Based on the Arizona Ambient Air Guidelines, the 24-hour average threshold for mercury is $0.40 \mu\text{g}/\text{m}^3$. If concentrations of mercury were lower than this established threshold, there would be no health and safety effects on employees or visitors (e.g., negligible impacts). Assuming that the Navajo Generating Station does emit 700 pounds of mercury annually and knowing that the marina would be approximately 4 miles from the generating station stacks, mercury levels at Antelope Point would be well below (less than $1/10^{\text{th}}$) of the threshold set by the State of Arizona. Therefore, prolonged exposure to high concentrations of pollutants would not be anticipated, even for marina employees.

Comment 23: Glen Canyon NRA currently provides no designated "quiet zones" on or near the water for non-motorized recreation activities (e.g., "sea" kayaking, canoeing, swimming, or camping). There are virtually no places on the reservoir with more than 1,900 miles of shoreline where families and others may enjoy water sports and other recreation activities free from the sights, sounds, and intrusions of houseboats, powerboats, high-performance "cigarette" boats and jet skis.

Response 23: It is not within the scope of this EA to identify designated "quiet zones" for Lake Powell. The extensive size and amount of shoreline of Glen Canyon NRA provide numerous opportunities, particularly in back canyons of the lake, to recreate away from the 'intrusions' described above. The current noise/activity level spectrum on Lake Powell ranges from high to low depending on season and time of day. During the off season (October – April), and at night during the heavy use season, noise levels are at a minimum lake-wide. During the heavy use periods, up to 70% of the lake is classified as low to medium noise levels. The proposed development at Antelope Point does not significantly affect the overall sound spectrum on Lake Powell.

Comment 24: National Park Service must also describe how it intends to ensure that Antelope Island will remain a low-impact, protected environment in light of the heavy boat traffic that will bring additional noise, air and water quality degradation, and people to the area, especially during heavy use periods.

Response 24: Use of Antelope Island is not expected to appreciably change with the development of the Antelope Point. Some of the island beaches near the point may be used a little more than before development but overall lake-use patterns are not expected to change appreciably. As described in the EA (in Section 4.13, described for Alternative B, which is referenced in the discussion for Alternative C), adverse impacts would be minimized with National Park Service shoreline patrols and the enforcement of applicable regulations. The 1986 DCP has already been partially implemented with addition of a launch ramp and parking lot for 300 vehicles. Increased presence around Antelope Island

has been on-going since 1999 with negligible impacts observed. Glen Canyon NRA has received increases in operating budget to monitor this new area of use.

Comment 25: National Park Service has an obligation to support recovery of endangered species that are native to the parklands under National Park Service jurisdiction. In the context of an updated GMP, National Park Service could consider utilizing the Antelope Point channel zone as a protected rearing area for some or all of the four listed, Colorado River native endangered fish (bonytail chub, Colorado pikeminnow, humpback chub and razorback sucker). Few endangered fish are known to currently inhabit Lake Powell reservoir. The only one referenced in the EA was the razorback sucker. These native fish have had their habitat dramatically altered and invaded by striped bass, carp, and other introduced game fish species.

Response 25: The four listed fish species do not occur anywhere near Antelope Point. There is no known habitat at that location as well. It would make no sense to attempt to rear and/or establish populations of these fish in unsuitable habitat. Further, the presence of vast populations of predator sport fish within the lake near Antelope Point would prohibit establishment as well. As stated in the EA (in Section 3.7), only two species identified by the U.S. Fish and Wildlife Service (FWS) and the Navajo Fish and Wildlife Department (NFWD) would be expected to occur within the vicinity of Antelope Point based on existing habitat conditions. These are the bald eagle and the California condor. Therefore, the potential for adversely impacting native endangered fish would not occur.

Comment 26: While Glen Canyon NRA has done little to reintroduce listed endangered fish into the reservoir, there are indications that under protected conditions, a limited number of individuals could survive. The razorback sucker in particular survives in low numbers in several lower basin reservoirs, mainly in response to ongoing FWS hatchery rearing efforts. A major challenge in ensuring these fish reach reproducing age is predation by and competition with introduced non-native fish including trout, catfish, bass and carp. In at least one Colorado River reservoir, a screen or curtain has been put in place to separate endangered fish from the game fish, and initial reports indicate that the system is working.

National Park Service should investigate, in collaboration with FWS, the possibility of creating a similar type of curtain that could be employed at Glen Canyon NRA (perhaps in a number of locations) to create protected rearing zones for endangered native fish. National Park Service should give serious consideration to experimenting with the Antelope Point channel for this purpose.

Pursuing a more detailed study of the potential benefits of such an experiment would require consultation with fish biologists and with the two FWS-sponsored endangered fish recovery implementation programs in the Upper Colorado River and San Juan watersheds. National Park Service should give this consideration in conjunction with future management plans and not necessarily compromise potentially suitable habitat like Antelope Point prior to completion of such an evaluation.

Response 26: The Upper Colorado Recovery Implementation Program has evaluated all suitable sites within the Colorado River watershed for possible reestablishment and enhancement of T&E fish populations. The inflow areas of Lake Powell (San Juan River and Colorado River) were designated as critical habitat for three species (razorback sucker, bonytail chub, Colorado pikeminnow). The lake itself was found not to be especially suitable for recovery efforts.

Comment 27: The federally listed species you have determined in your EA as potentially occurring in the vicinity of the action area include the California condor and the bald eagle, however it is unclear what determination of effect you have made for each of these species.

Response 27: Based on the impact indicators presented in Section 4.7 of the EA, impacts on special status species resulting from implementation of Alternative C would result in short-term, *minor*, and adverse impacts from construction and long-term, *minor*, and adverse impacts from operations. These minor impacts may potentially affect, but would be unlikely to adversely affect either special status species. As discussed in section 4.7.2 (page 4-27), a *minor* impact is associated with the determination of "*May Effect/Not Likely to Adversely Affect*" for both species.

Comment 28: The EA indicates Alternative C as the management-preferred and environmentally preferred Alternative, which entails a modified version of the Antelope Holdings, LLC Proposal. Please indicate whether this is the alternative you would like us to review in this consultation.

Response 28: Since Alternative C is the preferred alternative, USFWS should review Alternative C. The National Park Service has evaluated each alternative for its potential impacts on special status species. Though Alternative C is preferred by the Navajo Nation and NPS based on its ability to meet the Project's purpose and need and for its reduced environmental consequences (compared to Alternative B), any decision that is made will implement the mitigation measures proposed by USFWS, since these apply to all three alternatives. The FONSI outlines the specific recommendations provided by the USFWS to protect the species of concern.

Comment 29: The EA indicates that condors have been observed near the action area year-round, however none have been observed or recorded at Antelope Point. The action area is within the nonessential experimental population area, and condors may arrive at the action area due to their attraction to human activity. Activity can often attract condors to a site and increase the potential for risk, through interaction with humans and equipment and increasing habituation by condors. The Fish and Wildlife Service has recommended inclusion of additional measures (that Grand Canyon National Park has adopted) to reduce the likelihood of adverse effects to condors from construction activities.

Response 29: The National Park Service has incorporated the recommended measures into the Finding of No Significant Impact (FONSI). The Navajo Nation and NPS will also educate visitors to the recreation area to avoid interacting with condors and to immediately inform appropriate personnel when condors occur there. Specific mitigation measures provided by USFWS will be incorporated into contract language that will require the contractor (and Navajo Nation and NPS personnel as well) to comply with the preventive and protective measures proposed.

Comment 30: The EA indicates that bald eagles have been observed feeding at Antelope Point during the winter months, but no nest sites have been observed or recorded at Antelope Island or Antelope Point. The proposed project may increase visitor use of the area, including Antelope Island. If eagles are using Antelope Island as a winter roosting or foraging site, it may be advisable to implement buffer zones around eagle use areas. Buffer zones would likely be ¼ mile seasonal restrictions on visitor use of roosting or foraging areas.

Response 30: The National Park Service annually monitors bald eagle use of Glen Canyon NRA which includes Antelope Island and has found that bald eagles utilize Antelope Island only during the winter

and early spring and do not nest at this location. Due to the low number of visitors during that time period, the potential for disturbing eagles is limited. With the development of the preferred Alternative (Alternative C), visitors during the winter would not be expected to greatly increase. Rather than implement a buffer zone, National Park Service would prefer to continue monitoring the presence of bald eagles within the area. If through these surveys, bald eagles appear to be affected by visitor use, the NPS would take appropriate action to restrict visitor access to these roosting and foraging sites.

Comment 31: Table 3-4 recognizes Antelope Island, but not the Antelope Point Development Area with respect to scenic classifications... the "fin-like" sandstone ripples where the day use and campground area are planned are not identified. Why?

Response 31: Though the area does have scenic values, National Park Service does not classify lands outside the Glen Canyon NRA boundary. The Antelope Point Development Area is located above the 3,720-foot contour; therefore it is located on the Navajo Nation, except for the area from lake level to elevation 3720'. This small distance is not applicable for scenic view classification.

Comment 32: The beaches near the site are used for camping, boating, skiing, etc. Isn't there some interest in protecting some of this current use and the users' views of this portion of the landscape?

Response 32: As shown by comparing Figure 2-1 and Figure 2-3, Alternative C (the preferred alternative) allows for day use at existing day use areas. Camping would be allowed in the campground, rather than at scattered sites along the shoreline, which would reduce degradation along the lake edge. Water skiing would be allowed except within the wakeless zone around the marina.

Modifications to views of this portion of the landscape would result from implementation of Alternative C. However, as described in the EA, final designs for the project would specify that facilities complement the natural and cultural landscape by incorporating Navajo themes and natural colors and materials. Building heights would also be limited. Implementation Alternative C would alter the landscape character and would be readily apparent from the surrounding area. However, based on the existing visible features in the landscape (Navajo Generating Station, City of Page) and the proposed design features, adverse impacts on visual resources would be minor to moderate.

Comment 33: According to your documents, increased visitor use is expected to generate up to 100 tons of criteria pollutants annually. This is a significant increase over the current impacts created by the lower number of visitors.

Response 33: The Antelope Point Marina and Resort Development Project EA states (in Section 4.2) that pollutants from automobiles, trucks, houseboats, powerboats, and other watercraft at Antelope Point would not be anticipated to generate over 100 tons of pollutants annually. As stated in the EA (in Section 3.1), ambient air quality in Glen Canyon NRA is well below the federal limits for each criterion pollutant measured.

Comment 34: Under Alternative C, 139 to 144 acres would be developed or paved. This represents a significant loss of native vegetation and wildlife habitat.

Response 34: The Antelope Point area is primarily rock with some sparse vegetation. The area is part of thousands of acres of comparable habitat regionally and within Glen Canyon NRA. As stated in the EA (Sections 4.5, 4.6, and 4.7), loss of this acreage would result in extremely localized impacts to

individual plants and animals. However, there would be negligible to minor impact to the plant and animal populations they reside within. Though minor and adverse impacts to vegetation and wildlife habitat would occur locally, these impacts would not be widespread and would be negligible on a park-wide scale. Consequently, such impacts would not constitute an impairment of these resources. In Section 4.5, impairment is defined as an effect that would *affect a relatively large area in and out of the NRA*. The development of Antelope Point would not result in impacts relatively large enough to constitute impairment of NRA (over 1.25 million acres).

Comment 35: According to information presented in the EA for geology and soils, which clearly describes cumulative impacts at minor to moderate levels, I cannot agree with your assessment that "No impairment of geology and soil resources would result from the implementation of this alternative."

Response 35: Though minor and adverse impacts to geology and soils would occur locally, these impacts would not be widespread and would be negligible on a park-wide scale. Consequently, such impacts would not constitute an impairment of these resources. In Section 4.3, impairment is defined as an effect that would cause a permanent change in a *large portion of the overall acreage of the NRA*, affecting the geology and soils to the point that the NRA's purpose could not be fulfilled and the resource would be degraded precluding the enjoyment of future generations. The development of Antelope Point (total project study area roughly 900 acres) would not result in impacts intense enough to constitute impairment of NRA (over 1.25 million acres) resources. This impact area is less than 1/10 of a percent of the total NRA acreage.

Comment 36: The presence of a fuel and waste oil storage facilities create risks that do not exist with the current level of development... not constructing the facilities (Alternative A) will effectively eliminate the risk, with no mitigation necessary.

Response 36: The presence of these facilities and the risks associated with them are documented in the EA under Alternative C. Though Alternative A would effectively eliminate these risks, Alternative A does not meet the objectives of the project (described in Sections 1.5 and 2.5) which include: (1) providing additional recreation opportunities and access, which satisfy the needs of the visiting public and supporting the preservation of Lake Powell and the Antelope Point Project site for future generations; (2) providing the people of the Navajo Nation with an opportunity for sustainable development of their lands, tourism resources, and local enterprises; and, (3) providing the visiting public with a quality commercial operation that provides exceptional service at rates that are fair and consistent with the cost and quality of the offering. Alternative C would meet these objectives.

Comment 37: It is logical to assume that the lack of medical care at a particular location causes people to exercise increased caution. With respect to Alternative C, accidents would increase in excess of what mitigation provisions you propose are able to address resulting in the creation of new areas with a high potential for serious accidents or hazards (*major impacts*).

Response 37: As described in the EA (Section 4.9.5), public safety facilities under Alternative C would include both first aid, fire and law enforcement facilities. These types of facilities would contribute to improving public safety at Antelope Point if Alternative C were implemented. Although the overall number of accidents may increase due to the increase in the number of visitors on the Lake, it is not reasonable to assume that accidents would increase in excess of what proposed mitigation measures

could handle. Under Alternative C, additional visitors to the area coupled with public safety facilities would result in minor and adverse impacts on public safety. Therefore, impacts on public safety would be expected to be slightly higher, despite the provision of facilities. However, impacts on public safety would not be *major* because the potential for serious accidents or hazards would not be high, as demonstrated by facilities on the lake with characteristics similar to those that would occur at Antelope Point. In other words, historical accident data indicates that the development of Antelope Point may increase the overall total number of accidents NRA-wide, but it is not likely to appreciably increase the risk of having an accident or the severity of one if it happens.

Comment 38: It is impossible to believe that thousands of additional engines and people associated with them will not impair the ability of the current visitors to experience the existing soundscape. It is not possible to believe that people experiencing natural soundscapes near Antelope Point will not be more frequently disturbed by the increased number of motor vehicles brought to and attracted to the area by the proposed development. By your definition, impacts to the soundscape under Alternative C can be expected to be moderate to major.

Response 38: The soundscape will be adversely affected, but not impaired. The current noise/activity level spectrum on Lake Powell ranges from high to low depending on season and time of day. During the off season (October – April), and at night during the heavy use season, noise levels are at a minimum lake-wide. During the heavy use periods, up to 70% of the lake is classified as low to medium noise levels. The proposed development at Antelope Point does not significantly affect the overall sound spectrum on Lake Powell. The analysis of noise impacts presented in the EA recognized that minor-to-moderate and adverse impacts would occur as a result of increased visitor use of the area, but that these increased uses would be consistent with what has been planned for Antelope Point in multiple documents including the GMP (NPS 1979), the Economic Feasibility Study (NPS 1983), the Antelope Point DCP/EA (NPS 1986), and the Carrying Capacity Study (NPS 1987).

The main difference between moderate and major impacts (as defined in Section 4.10) explain that with moderate impacts human-caused noise is occasionally noticeable between the hours of 10:00 PM and 6:00 AM, and with major impacts human-caused noise is often noticeable between the hours of 10:00 PM and 6:00 AM. Under Alternative C, human-caused noise would occasionally be noticeable, particularly during holiday weekends in the summer when high visitor use would be expected. Major impacts on the soundscape would not be anticipated. Although there would be a localized impact at Antelope Point, the impact to the lakewide noise/sound spectrum would not be significantly affected, thus impairment of the soundscape would not occur.

Comment 39: Adverse changes to visual quality and lighting additions will be substantial, highly noticeable, and result in changing the character of the landscape such that changes are long term. Uses and visitor satisfaction identified as part of Glen Canyon NRA's purpose will no longer be provided over the long term for future generations. Impacts on visual resources would be major, and visual resources would be impaired.

Response 39: Localized adverse changes to visual resources would result from modifications to the landscape character and natural views, which would be readily apparent. Due to the design features that would be incorporated into the project, changes would not be highly noticeable, i.e., contrasting with the natural character. Alternative C would not contribute to a permanent change to the character of the landscape with the NRA, such that uses and levels of visitor satisfaction could no longer be

provided over the long term for future generations. Although there would be a localized impact at Antelope Point, the impact to the viewscape in the overall area would not be significantly affected. Therefore, Alternative C would not result in an impairment of visual resources.

Project need and miscellaneous issues

Comment 40: Demand for any new marina development at Glen Canyon NRA, in proximity to the existing Wahweap Marina in particular, must be well documented. National Park Service must show: why existing facilities at Wahweap cannot meet demand; why a new facility is needed so close to Wahweap Marina when so many public services and facilities would have to be duplicated; and why constructing a new facility would be preferable to expanding existing facilities, especially at a time when visitation is on the decline.

Response 40: The demand for another marina is very high in the "downlake" portion of Lake Powell due to the existence of only one marina, as opposed to three marinas (Bullfrog, Halls Crossing, Hite) for "uplake" visitors. Wahweap Marina slip and buoy slots have remained 100% occupied for many years and a waiting list currently exists of approximately 300 people. As of 1999, the waiting list was closed since slips were rarely given up. Every year, approximately 200 requests to go on the waiting list are turned down. Buoys remain 100% occupied, but tend to become free more often than slips. One of the objectives to building a new marina in proximity to Wahweap is to alleviate concentrated visitation at Wahweap during the high use seasons. Expanding Wahweap facilities would only concentrate visitation more in that area. Although overall visitation has been stable the last few years due to the economy and recent national events, there is no indication that visitation will not gradually increase over the next 20 years. The 1998 Wahweap Development Concept Plan states that Antelope Point will aid in reducing traffic congestion and expansion pressure at Wahweap and will realize the economic commitment to the Navajo Nation.

The 1986 Antelope Point DCP has been partially implemented with the construction of a launch ramp, parking lot, and other minor facilities which have been supporting limited visitor services since July 1999. Though development of the Antelope Point Marina and Resort Development Project would disperse some lake users from the Wahweap Marina, the primary purpose and need for the project includes supporting the Navajo Nation's desire for development along the southern shoreline for recreational uses and to provide economic development opportunities for the Navajo Nation and its members.

Comment 41: Basic services such as police and fire protection must have facilities appropriate to the anticipated need over time. National Park Service must address these infrastructure questions in a quantitative way.

Response 41: As described in the EA (in Section 2.3 and Table 2-2), two public safety facilities would be provided by the Preferred Alternative (Alternative C). The Navajo Nation and National Park Service would determine the appropriate staffing of these facilities consistent with the visitation occurring at Antelope Point. Public safety and law enforcement would be subject to the previously established Memorandum of Understanding between the Navajo Nation and National Park Service for the provision of such services at Antelope Point. A quantitative analysis of infrastructure needs will be

conducted to determine appropriate staffing of the proposed facilities consistent with the need for public safety services.

Comment 42: Why are so many changes occurring from the original 1986 DCP? Where is the background information that justifies the changes? Drawings in the proposal are not consistent with the 1986 DCP, as stated in Section 1.3.2 of the EA. With respect to the placement of the large resort hotel, what is wrong with the 1986 DCP proposal that the earlier planners intended, which placed the hotel (lodge complex) off the large hill? Additionally, this hill location was to be an overlook, not a monument on the highest location of the site.

Response 42: The intent of a DCP is to provide a concept for the development, not specific site plans. Though specific locations for facilities differ from the 1986 DCP/EA, the proposal includes the quantity and type of facilities originally proposed for the Antelope Point Development Area. Additionally, these facilities are located (under Alternative C) within the originally established development area boundaries. Although Alternative C deviates from the DCP in regards to the proposed locations of a few facilities, the rationale behind these proposed locations were based on "attractive and aesthetic development", not specific environmental regulations and consequences. Alternative C is consistent with the DCP proposal's rationale, planning goals and objectives and complies with its numerous requirements and suggestions. Alternative C addresses the DCP planning constraints and concerns identified as well.

Nothing is "wrong" with the concept of placing the hotel off the hill, however, several engineering challenges pose a problem with this location. Antelope Holdings, LLC conducted preliminary studies that indicated that the top of the hill would provide a more structurally sound, less complex location to build a hotel and cultural center. From an environmental impact standpoint, placing the hotel and cultural center on the top of the hill had a greater impact on visual resources, although many people felt the view would be beneficial. However, placement of these facilities on the top of the hill had a beneficial effect on geological and soil resources, since this location is already a severely disturbed area, as opposed to the undisturbed areas off the side of the hill.

Comment 43: Could another location be used for the trailer storage, dry storage and maintenance yards? It would not be an impressive view to have the storage area along the main entry road.

Response 43: Yes, there were many potential areas addressed by Navajo Nation and NPS staff. Many criteria have to be addressed in the selection of the storage areas, such as roads and traffic patterns, visitor safety, and visual effects from land, as well as the Lake. NPS staff tend to place a higher value on the view from the lake, than from the development area. Under Alternative C, the preferred alternative, the dry storage area would be setback from the road further (up to 200 feet) and the area would be screened by a combination of the use of berms and vegetation. Though the dry storage would be noticeable from the entry road, screening would reduce impacts to minor-to-moderate levels.

Comment 44: Where is the location of the water tank for chlorinating the water system?

Response 44: The proposed location for the water tank is shown on Figure 2-3, number 14, which is at an elevated area behind a small knoll.

Comment 45: Is the parking lot for the marina going to be underwater at the high water mark?

Response 45: No permanent facilities are allowed below the 3711' elevation within Glen Canyon NRA. Since the high water mark (or full pool) for the reservoir is 3700', no permanent facilities or structures are proposed in an area where they would be under water at full pool elevation.

Comment 46: With respect to the marina, a swimming pool in the middle of the channel?

Response 46: Alternative B, the proposal submitted by Antelope Holdings, included a kiddie pool and spa at the marina village. These features are not included in Alternative C, the preferred alternative.

Comment 47: The marina boat launch ramp area is flat and a prime beach area... why are you placing the beach area on the rocky sections of the shoreline?

Response 47: The entire shoreline at Antelope Point is rocky. The contour and condition of the shoreline changes frequently with the elevation of the lake. The purpose of the beach (as well as day use areas) is to provide pedestrian access along the shoreline and into the water. A large amount of the shoreline in the Antelope Point Development Area has gentle slopes that would allow this type of access, including the proposed beach area.

Comment 48: The adverse impacts resulting from erosion caused by camping and vehicle use at Antelope Point can be expected to continue at another location. Displacing this problem to another area is not a viable option. The impacts on surface water created by existing public use of Antelope Point will either be displaced to another location or prevented by the loss of an important recreational opportunity, which conflicts with the objectives of this action. Impacts on native plants would cause a change in the plant community, namely areas would be paved, visitor use and trampling would increase, and developed areas would be permanently removed from availability. Other local areas would be utilized by the visitors displaced, spreading the impacts of Antelope Point over a larger area. Land use impacts from those displaced from Antelope Point by the development will be neither localized nor negligible.

Response 48: Displacement of existing users may or may not occur with development of Antelope Point. Camping will continue to be allowed at Antelope Point; however, rather than allow unstructured camping along the shoreline, which can adversely impact water quality, camping would occur in designated campground areas minimizing adverse impacts along the shoreline. Some individuals may choose to camp elsewhere, but some individuals who currently camp at Antelope Point or in other shoreline areas would be expected to camp at Antelope Point in the future. Therefore, adverse impacts to off-site areas from camping would be negligible.

Similarly, vehicle use would be partially displaced because vehicle use is primarily associated with shoreline access and development of Antelope Point would not restrict shoreline access. Therefore, adverse impacts to geologic and soil resources in new areas would be negligible because the locations where vehicles can access the shoreline are limited (and shoreline access is a main reason for vehicle use at Antelope Point). Again, only partial displacement of users would be expected and adverse impacts to geology, soils, water quality, and land uses from off-site uses would be expected to be negligible. Though minor and adverse impacts to vegetation would occur locally, these impacts would not be widespread and would be negligible on a park-wide scale. Consequently, such impacts would not constitute an impairment of these resources. The development of Antelope Point would not result in impacts intense enough to constitute impairment of NRA resources.

Comment 49: Facilities require maintenance and the Federal government complains of a maintenance backlog. It makes no sense to create more maintenance dependent facilities while other facilities go unmaintained.

Response 49: Though the National Park Service would have public safety and law enforcement staff at the proposed facilities, these facilities would not be owned or operated by the National Park Service. The concessioner (Antelope Holdings, LLC) would be responsible for maintenance of the facilities, which would not be dependent on Federal funding.

Comment 50: An alternative should be designed to reclaim the gravel pit area without building on top of it, thereby reaping the benefits of reclamation without the impacts of development.

Response 50: The gravel pit on top of the hill is already a heavily impacted area such that development would have negligible effects on its existing condition.

Comment 51: The management measures described to manage impacts on geology and soils require the commitment of future resources that may or may not be available. Furthermore, the implementation of a no wake zone may not be enforceable.

Response 51: As described in response #49, Antelope Holdings, LLC would be responsible for constructing and maintaining mitigation measures (landscaping) that would manage impacts to geology and soils through a business site lease with the Navajo Nation and a concessions contract with NPS. The implementation of a no wake zone would be enforceable through signage in the area and penalties for boaters who do not obey the posted signs. All existing marinas on Lake Powell have no wake zones that are enforceable, as well as several other areas such as the designated swimming areas at the Coves, Lone Rock, Wahweap, Rainbow Bridge, etc..

Comment 52: Alternative C would change Antelope Point from a less developed, less managed, and less monitored recreational area to an area that is less rustic and more like a commercial campground. Doing so would eliminate a less developed recreational opportunity, reducing the recreational opportunities available at Lake Powell, denying recreational opportunities to those who desire a less structured experience, or who cannot afford the amenities you wish to provide.

Response 52: Development at Antelope Point would change the character of the site from its primitive condition to a more structured facility for camping. This development would reduce the opportunity for a less developed recreational experience at Antelope Point, but it would not eliminate opportunities for this type of experience at other locations on Lake Powell. Far more opportunities to experience non-developed recreational areas than developed recreational areas exist on Lake Powell. Locations like Lone Rock, the Chains, Wiregrass Canyon, and Crosby Canyon are just a few examples.

Comment 53: Charging for use of a pump-out station would encourage illegal dumping. Make it free.

Response 53: As indicated in Table 2-2, under Alternative C (the preferred alternative), there would be no charge for pump-outs at the marina.

Comment 54: With respect to employee housing, the inclusion of "if needed" indicates that employee housing is not guaranteed or even necessarily likely, and it should not be considered as a beneficial impact in this EA.

Response 54: If the employee housing were developed it would generate a beneficial impact based on available data that indicate a lack of housing in the area. If the employee housing were not developed, this beneficial impact would not occur.

Comment 55: The assessment that recreational uses would be enhanced is subjective. Other people feel that recreational uses at Antelope Point would be adversely affected by development of a campground and RV park, fishing docks, and maintenance of day-use and beach areas, resulting in widespread, long-term, moderate to major, and adverse impacts... Losing access to less developed recreational opportunities is not beneficial, and may not be minor.

Response 55: Though recreational opportunities would change at Antelope Point, Alternative C would allow for increased recreational opportunities because additional visitors could be accommodated and would have access to Lake Powell with the proposed facilities. This change would not eliminate all opportunities for less developed recreational opportunities, which would still be available at other locations around the lake.

Comment 56: How did you deal with Indian Trust Resources?

Response 56: Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by Department of Interior agencies be explicitly addressed in environmental documents. Although it was not specifically stated in the EA, Antelope Point is itself an Indian trust resource. The EA was conducted jointly by the Navajo Nation and NPS to address all environmental, social and socioeconomic impacts (Chapter 4). The water in Lake Powell is also an Indian trust resource and water quality impacts are specifically addressed in the EA as well.

The 1970 MOA among the Navajo Nation, National Park Service, BIA, and BOR specifically recognizes that in transferring lands to the United States (now contained in the Glen Canyon NRA), that were previously within the boundaries of the Navajo Reservation, the Navajo Nation retained certain rights to those transferred lands. These rights include the ability to realize the economic benefits of tourism-related development of these lands. The Antelope Point site is part of transferred lands. Its proposed use is consistent with long-standing planned land uses and is consistent with the Glen Canyon NRA GMP.

Concerns that the Project would not benefit the Navajo Nation

Comment 57: In addressing National Park Service's interest in aiding the Navajo Nation, the National Park Service should not restrict its evaluation to Antelope Point. National Park Service should consider the possibility of the tribal government taking over management and operation of existing Glen Canyon NRA marinas including Wahweap. This would meet the economic development criteria without additional environmental impacts.

Response 57: As noted in the EA (in Section 2.4), the Antelope Point Marina and Resort Development would be located on Navajo Nation land, unlike Wahweap, which is located in the Glen Canyon NRA on federal land administered by the National Park Service. Acquisition and operation of the Wahweap concession contract is not a viable economic development alternative for the Navajo Nation. Further, the 1970 MOA among the Navajo Nation, National Park Service, BIA, and BOR specifically recognizes that in transferring lands to the United States (now contained in the Glen Canyon NRA),

that were previously within the boundaries of the Navajo Reservation, the Navajo Nation retained certain rights to those transferred lands. These rights include the ability to realize the economic benefits of tourism-related development of these lands. The Antelope Point site is part of transferred lands. Its proposed use is consistent with long-standing planned land uses and is consistent with the Glen Canyon NRA GMP. The 1986 Antelope Point DCP has been partially implemented with the construction of a launch ramp, parking lot, and other minor facilities which have been supporting limited visitor services since July 1999.

Comment 58: If National Park Service determines that the purpose and need for the project include providing economic development opportunities for the Navajo people, then National Park Service must demonstrate that legal authority exists for the agency to undertake development projects or other management activities on that basis.

Response 58: As explained in the EA (in Sections 1.1. and 1.2), the purpose and need for the Project include (1) the commitment of the National Park Service to implement the terms of the 1970 MOA and comply with the previously approved Antelope Point DCP, by approving development that would serve recreational uses at Antelope Point; and (2) the lack of a strong and diverse economic base within the Navajo Nation, which can be remedied partially by the revenue generated from the Project. The Concessions Management Improvement Act of 1998 (P.L. 105-391) authorizes the Secretary to "...utilize concession contracts to authorize a person, corporation, or other entity to provide accommodations, facilities, and services to visitors to units of the National Park System."

In addition, this EA was prepared as a joint effort between the Navajo Nation and National Park Service. Providing for economic development opportunities was the primary purpose and need for the Navajo Nation, but not the only purpose and need for the National Park Service.

Comment 59: With respect to employment opportunities, it is possible to create the same long-term, minor-to-moderate, beneficial impacts without creating the adverse impacts to the Antelope Point area. The Antelope Point development is not the only way to create the alleged beneficial impacts, and therefore this development is not justified on these grounds alone.

Response 59: As stated in the EA (Section 1.2), the need for the project stems from (1) the commitment of the National Park Service to implement the terms of the 1970 MOA and comply with the previously approved Antelope Point DCP, by approving development that would serve recreational uses at Antelope Point; and (2) the lack of a strong and diverse economic base within the Navajo Nation, which can be remedied partially by the revenue generated from the Project.

Designation of Antelope Point as a non-motorized area

Comment 60: In its alternative analysis, National Park Service should consider the value of the Antelope Point area to non-motorized uses.

Response 60: Motorized uses are currently allowed in the Antelope Point area under the Glen Canyon NRA's GMP. All of Lake Powell is included in the Recreation and Resource Utilization Zone, which provides for both motorized and non-motorized boating (NPS 1979). The area of the lake adjacent to Antelope Point is part of the original channel for the Colorado River. If the lake levels dropped to low levels (as observed in the early 1990s), the original river channel would provide the only route to

uplake areas. Therefore, designating this portion of the lake for non-motorized uses would potentially cause major and adverse impacts on public safety, recreational uses, socioeconomics, and other resource areas as a result of a lack of access to uplake (or downlake) areas via the water.

Comment 61: Despite the growing popularity of non-motorized recreation, a legislative mandate to provide for a broad spectrum of recreation opportunities and the generally benign environmental impact of non-motorized recreation activities, National Park Service has mostly ignored the interests and needs of those who prefer human-powered water sports at Glen Canyon NRA.

Response 61: It is not within the scope of this EA to address non-motorized recreation throughout Lake Powell. In addition to being strongly influenced by the City of Page and Wahweap Marina, Antelope Point is located on the original river channel. In times when the lake levels drop (as experienced in the early 1990s), this channel provides the only reliable access to uplake and downlake areas. Prohibiting motorized uses in this area could result in major adverse impacts to recreational uses, park operations and public safety. Further, the presence of motorized uses does not preclude use of non-motorized vessels. The channel (several hundred feet wide) near Antelope Point would be designated a wakeless area, which would provide opportunities for non-motorized vessels, and minimize any conflict between motorized and non-motorized uses. The proposed development at Antelope Point does not significantly affect the overall expansive range of recreational opportunities on Lake Powell.

In 1997, due to public input on the "Final Commercial Services Plan" regarding these types of uses, Glen Canyon NRA recognized this type of user group and began issuing business permits for guided kayak and canoe tours, scuba instruction/dive trips and instruction classes. Currently, there are nine authorized businesses providing kayak and canoe tours and four commercial operators providing scuba instruction.

Comment 62: In the case of Antelope Point, the narrow, bending river channel offers ideal conditions for such low-impact, non-motorized recreation. There are few places on the reservoir's shoreline with easy auto access that could easily accommodate these recreational activities with few conflicts with motorboat uses. Antelope Point's new launch ramp and proximity to the town of Page make it perhaps the best choice for a facility that would cater to non-motorized users.

Response 62: Although the launch ramp was constructed specifically to accommodate motorized use of Lake Powell and a precursor of the Antelope Point Marina development, several accessible shoreline areas "downlake" exist for launching non-motorized craft such as Crosby Canyon, Lone Rock, and the Chains area. Numerous opportunities exist "uplake" as well.

Again, Antelope Point is located on the original river channel. In times when the lake levels drop (as experienced in the early 1990s), this channel provides the most reliable access to uplake areas. Prohibiting motorized uses in this area could result in major adverse impacts to recreational uses and public safety. The channel ranges from several hundred feet wide to over a thousand feet wide near full pool elevations. The channel near Antelope Point would be designated a wakeless area, which would provide opportunities for non-motorized vessels, and minimize any conflict between motorized and non-motorized uses.