

# Glen Canyon National Recreation Area

National Park Service  
U.S. Department of the Interior

Glen Canyon National Recreation Area  
Utah and Arizona



## Finding of No Significant Impact (FONSI) and Errata

Uplake Development Concept Plan /  
Environmental Assessment

December 2006



## FINDING OF NO SIGNIFICANT IMPACT

### Final Uplake Development Concept Plan Environmental Assessment and Determination of Effect

#### Glen Canyon National Recreation Area Kane, Garfield and San Juan Counties, Utah

## PURPOSE AND NEED

The Glen Canyon National Recreation Area (NRA) encompasses more than 1.2 million acres of land and water in northeastern Arizona and Utah. The principal feature of the area is Lake Powell, which was formed by Glen Canyon Dam on the Colorado River. Previous development concept plans (DCP) have been prepared for Hite, Halls Crossing, and Bullfrog developed areas. The most recent DCP for the Hite area was completed in August 1983. A joint DCP for Bullfrog and Halls Crossing was approved in May 1985, and amended in September 1985. Minor updates have occurred since – the most recent for Bullfrog in January 1990. The Uplake DCP includes proposed management action for three areas: Hite, Halls Crossing, and Bullfrog.

Subsequent to development of the previous DCPs, the uplake areas within Glen Canyon NRA have experienced periods of increased visitation, drought, and unprecedented low lake levels. Changes in visitation and user demands, and low lake levels that affect water-based facilities, require evaluation of future service needs and anticipated physical limitations.

The Uplake DCP is needed to:

- Determine how to provide future visitor access to the uplake developed areas and tributaries at varying lake levels.
- Determine the need for and scope of additional visitor services in the uplake developed areas in order to address changes in visitation numbers and visitor expectations.
- Consider the impacts of fluctuating lake levels on visitor access and the provision of services.
- Evaluate the impacts of existing developments on the resources within the uplake developed areas.

The overall purpose of the Uplake DCP is to evaluate a range of alternatives for the future management of the uplake marinas and associated developed areas at Bullfrog, Halls Crossing, and Hite to ensure the protection of NRA resources and values while offering recreation opportunities as provided for in the NRA's enabling legislation, purpose, mission, and goals.

To address uplake needs and meet the overall purpose of the Uplake DCP, the following objectives were developed through the planning process:

- Continue to provide visitor access to the uplake areas and tributaries.
- Provide opportunities for a variety of visitor experiences at the uplake areas.
- Provide necessary and appropriate visitor services at the uplake areas, consistent with current and anticipated visitation.
- Accentuate different types of services at each developed area.

- Design facilities and services within uplake developed areas to accommodate fluctuating lake levels.
- Guide efficient and effective organization of services within uplake developed areas.

## **ALTERNATIVES**

### **Selected Action**

The selected action is the preferred alternative and environmentally preferred alternative as described in the environmental assessment. The selected action presents the NPS preferred alternative and defines the rationale for the action in terms of natural and cultural resource protection and management, visitor use, and health and safety. The DCP describes the development improvements the National Park Service intends to implement over the next 15 to 20 years. Full implementation of the DCP could lie many years in the future. Components of preferred alternative will be undertaken as individual projects are prioritized, determined to be economically feasible, and project funding is identified. The selected action meets all of the planning objectives outlined in the DCP.

The selected action represents changes to current facilities in the form of facility upgrades, expansion, or improvements generally keeping with approved plans and anticipated future needs including increases to employee, concessioner, and visitor services, and paving launch ramps. The selected action also reorganizes and relocates some marina services among the three marinas.

### **Employee, Concessioner, and Partner Housing**

At Bullfrog, all long-term employee housing will be consolidated into one area northeast of the Bullfrog campground over time as determined economically feasible and as project funding becomes available. Trailer housing will be replaced with permanent housing comprising single-family homes, duplex, and multiplex units. Due to rapid changes in pre-manufactured building technologies, certain types of manufactured housing on permanent foundations may be considered as replacement housing units, but would be subject to specific design planning and analysis to meet the project objectives. Seasonal employee housing will be upgraded and expanded at the existing site southwest of secured storage. The current concessioner trailer housing area will be reclaimed.

Increased visitation is anticipated in the future and additional staff will be needed to operate facilities and visitor services. Privately owned housing for rent or purchase outside the NRA is currently nonexistent, but would be expected to develop over time. Up to 4 additional NPS housing units (for a total of up to 29 units), up to 24 additional concessioner housing units (for a total of up to 197), and up to 6 additional partner housing units (for a total of 14) will be added at Bullfrog to serve the school and provide staff for interagency law enforcement. The 24 additional concessioner housing units will consist of construction of an additional dormitory or efficiency unit building within the seasonal housing area. If housing availability outside the park near uplake development areas does not change, housing levels may be re-evaluated to address operations and emergency response requirements.

The existing public recreational vehicle (RV) park at Bullfrog will be upgraded and converted to an employee RV park with the number of sites remaining at 24. A building with shower and laundry facilities will be added in the vicinity of the seasonal housing and employee RV park. Some seasonal and concession employees are retired and work seasonally, living out of their RVs. An employee RV park provides efficient and economical housing options for some seasonal employees. The existing concessioner RV park, adjacent to the existing concessioner housing area, will be removed and revegetated with native plants.

The existing employee trailer housing units at Halls Crossing and Hite will be replaced with new housing units. Up to 2 additional permanent NPS housing units (for a total of up to 10 units) and up to 4 additional concessioner units (for a total of up to 46 units) will be added at Halls Crossing. An employee RV park providing housing for temporary employees will be constructed at Halls Crossing for up to 12 RV sites.

No additional housing will be added at Hite; however, the existing housing will be replaced with new housing units.

## **Overnight Accommodations**

Under the selected action, Defiance House Lodge and family rental units at Bullfrog will be expanded so that up to a total of 94 units will be added (for a total of up to 150 units). The allocation of lodge units versus family rental units will be determined by the National Park Service in conjunction with the concessioner. The Defiance House Lodge facilities will be upgraded. At Halls Crossing, up to an additional 40 family rental units (for a total of up to 60 units) will be constructed. The existing family rental unit trailers at Bullfrog and Halls Crossing will be replaced with new units.

The number of family rental units available at Hite will be increased by up to 15 units (for a total of up to 20 units), and will be located in the same area as the existing units (in the same area as the employee and concessioner housing). The existing family rental trailer units will be replaced with new units.

## **Visitor Camping**

The developed campground at Bullfrog and the Bullfrog RV park will be consolidated in the existing campground location. Anticipated increases in visitation in the future will result in increased demand for visitor camping. The combined campground and RV park will be expanded by up to 128 sites (for a total of up to 230 sites), with approximately two-thirds of the new sites offering hookups with 50-amp electrical service, and non-hookup sites. The balance of the non-hookup sites will be divided between a designated group camping area and walk-in tent sites. The new group camping area is envisioned to consist of a “pod” of 6 sites, each of which could accommodate up to 8 tents and 15 people per site. A site analysis and design concept plan was developed for the Bullfrog campground. The proposed increases in numbers of campsites represent the maximum number of campsites that could be expected with full development of the area designated for camping. The proposed campsites will be developed to accommodate a variety of camping vehicle sizes, circulation patterns, and visitor camping experiences.

A small store, shower and laundry facility, and amphitheater will be added. The RV waste disposal station will be upgraded at the Bullfrog campground. Consolidation of these services at the campground location will improve the efficiency of operation of the Bullfrog development. No improvements will be made to primitive camping at North and South Bullfrog and Stanton Creek.

The Halls Crossing campground will be upgraded in the current location, including site upgrades and upgrades to the restroom facilities. The RV waste disposal station will also be upgraded in the current location. At the RV park, hookups will be upgraded to include 50-amp electrical service, and up to 8 additional RV sites will be added (for a total of up to 40 sites). Increased demand for RV sites will be expected with upgrading of available service. The proposed increases in numbers of campsites represent the maximum number of campsites that could be expected with full development of the area designated for camping.

The existing primitive campground will be upgraded at Hite. Upgrades will include defining up to 25 non-hookup sites in the campground loop to include campsites, picnic tables, fire rings, and grills. A centralized water source will be installed at the campground and restroom facilities will be added.

Under the selected action, there will be no change to shoreline camping at Hite for lake elevations above approximately 3,620 feet. Primitive camping will be available along the shoreline, the Dirty Devil River, and at Farley Canyon. Below a lake elevation of approximately 3,620 feet, shoreline camping will be permitted on the Colorado River at designated camping sites. This area will be upstream of the Hite launch ramp. Micro flush toilets will be installed if determined necessary based on campsite use.

## **Shower and Laundry Facilities**

The existing shower and laundry facilities at Bullfrog will be removed and new shower and laundry facilities will be constructed at the campground, primarily for visitor use. The existing shower facilities at the campground and at the RV park at Halls Crossing will be removed. The Village Center at Halls Crossing will be upgraded to include shower and laundry facilities for employees and visitors. The land-based store at Hite will be expanded to include visitor and employee shower and laundry facilities.

## **Land-Based Stores**

The store at the Village Center at Bullfrog will be expanded to provide a greater supply of items and food service. The warehouse and boat maintenance and repair facility will be moved, allowing the store to expand into this area. A campground store will be added at the Bullfrog campground to increase the variety of items offered and expand use of the facilities.

The Village Center store at Halls Crossing will be upgraded by replacing it with a larger building. The new building will provide adequate storage for supplies, land-based food service, and shower and laundry facilities. The fuel station area will be regraded and the pavement replaced to eliminate uneven areas.

Under the selected action, the land-based store at Hite will be upgraded and expanded to include shower and laundry facilities and to provide a potential food service facility. The building will undergo aesthetic improvements such as painting and the addition of a shade cover. The concrete pad around the fueling area will be replaced and extended. The concessioner secured storage and maintenance area adjacent to the store will be visually screened from the store. The RV waste disposal station will be upgraded with a new pump-out and containment pad.

## **Land-Based Food Service**

The Anasazi Restaurant at Bullfrog will be expanded by up to 70 seats (for a total of up to 250 seats). An additional food service facility will be added at the expanded Village Center store. At Halls Crossing, a food service facility will be added to the expanded Village Center store. The store at Hite will be expanded to provide a food service facility in the form of a small snack bar operated seasonally or as demand warrants.

## **Day-Use Facilities**

A second day-use facility will be constructed at Halls Crossing to include picnic tables, shade shelters, and restroom facilities. A day-use facility will be constructed at Hite at the top of the launch ramp. A partnership with Utah Department of Transportation (UDOT) will be developed for the purpose of pursuing upgrades to the SH 95 overlook to include a defined day-use area with picnic tables, shade shelters, and micro-flush toilets.

## **Ranger Station / Visitor Contact Station and Emergency Facilities**

The permanent helipad will remain at Halls Crossing. The helipad site will be upgraded to include a hardened, painted surface for landing, and a wind sock. The low water landing location for helicopters at Halls Crossing will be the parking lot adjacent to the marina.

## **Concessioner Boat Maintenance and Repair and Property Maintenance Facilities**

The concessioner rental boat maintenance and repair facilities and property maintenance facilities at Bullfrog will be moved from the existing location adjacent the Village Center to the secured storage area, northwest of the employee RV park. Visual screening will be enhanced at the new location to conceal the repair and storage areas from the general public. Space vacated at the Village Center will be used to expand the Village Center store and food service.

The secured storage area at Halls Crossing, including the boat maintenance and repair and property maintenance facilities, will be relocated to the old airstrip area, which is less visible from all points at Halls Crossing.

## **Secured Storage**

The secured storage area at Bullfrog will be expanded by up to 250 spaces (for a total of up to 1,000 spaces). An enclosed storage building with screening will be constructed and stacked storage will be used, if feasible. The facility screening will be improved to provide some mitigation for the visual impacts of the storage area.

The secured storage area at Halls Crossing will be relocated to a less visible location, which is an area already disturbed by an old airstrip. The new secured storage area will include an addition of up to 170 spaces (for a total of up to 500 spaces), an enclosed storage facility, and visual screening, as well as being surrounded by a 6-foot chain-link fence and locking gate. Covered storage will be made available.

The secured storage area at Hite will be expanded by up to 53 spaces (for a total of up to 160 spaces), and include construction of a boat wash-down facility for visitor and concessioner use.

## **Utility Systems**

The existing utility supply and distribution systems at Bullfrog, Halls Crossing, and Hite will be expanded as needed to provide adequate service for increased development. At Hite, a 100,000-gallon underground water storage tank for potable water will replace the existing aboveground water storage tank in the same general location. Because soils in this area are shallow, blasting may be required to bury the underground tank and will conform to specifications in NPS 65, *Explosives Use and Blasting Program* (1991). Upon completion of

installation of the water tank, the area will be covered with conserved topsoil, regraded to match natural contours, and revegetated.

## **Roads and Parking**

A new road will be constructed at Halls Crossing, to access the relocated secured storage. At Hite, an unimproved road will provide access to primitive low-water designated shoreline camping.

## **Fee Collection System**

The existing fee collection booth at Bullfrog will be upgraded for accessibility and administrative services.

## **School**

Under the selected action, the Lake Powell School will be expanded to include a library building.

## **Boat Wash-Down Area**

The boat wash-down facility at Bullfrog will be expanded to provide additional wash-down facilities in the same location (at the former concessioner maintenance area at the Village Center) for public access. Boat wash-down facilities will be constructed at Halls Crossing in the old secured storage area and at Hite at the concessioner maintenance facility.

## **Marina Facilities**

In the past, water-based marina facilities at Hite included a small rental fleet and wet moorage consisting of 54 buoys and associated services, courtesy docks, fuel docks, a floating minor boat repair facility, boat pump-out docks, and a floating store. Declining lake levels due to drought between the years 1999 and 2004, resulted in the closure of water-based facilities at Hite and permanent relocation of the infrastructure to Bullfrog and Halls Crossing. Hite will provide courtesy docks based on water levels.

Wet moorage (wet slip and buoy field moorings) will be managed jointly between Halls Crossing and Bullfrog. Buoy field moorings will be increased by up to 55 spaces, for a combined 1,145; including visitor, concessioner, and NPS wet mooring spaces for Bullfrog and Halls Crossing. The concessioner, in conjunction with the National Park Service, will determine how to allocate this total between the two sites based on customer preference, season, water level, and other factors. The existing water-based facilities at Halls Crossing will be upgraded under the selected action to include a fishing dock. The balance of marina facilities at Bullfrog and Halls Crossing will remain unchanged.

## **Water-Based Food Service**

Under the selected action, an 80-seat water-based restaurant will be provided at the Bullfrog Marina. An additional water-based food service facility will be added at Halls Crossing.

## Public Boat Launch Capabilities

The existing Bullfrog launch ramp will be maintained at its current width (ranging from 80- to 150-foot wide). Any new additional lengths needed to reach lower water levels will be constructed at a maximum of 80-foot wide. If the existing launch ramp becomes unusable due to extreme low water, a new launch ramp no more than 80-foot wide will be constructed within the developed area, which will require additional environmental evaluation and consultation at that time. The environmental consequences of construction of a new launch ramp in a new location will not be evaluated as part of this DCP. The existing launch ramp at Halls Crossing will be maintained at its current configuration. Any additional length necessary to reach low water will be 80 feet in width. As no other launch sites are available at Halls Crossing once the water level recedes below an elevation of 3,550 feet, launching will revert to “ramp closed—launch at your own risk.”

## Ferry Service Facilities

Ferry services at Bullfrog will continue to be provided by a docking wedge and associated access. The docking wedge will continue to be moved within the developed area to accommodate lower water levels. At Halls Crossing, the ferry will either be launched at its current location or moved to the main launch ramp as the water level recedes. Once the water level has receded lower than 3,550 feet and the main launch ramp is closed, a new primitive site, which includes the use of a wedge and gravel access road (similar to Bullfrog), will be located within the developed area in appropriate coordination with Utah Department of Transportation.

## OTHER ALTERNATIVES CONSIDERED

The no-action alternative represents the continuation of current uses, and describes the existing condition of developed areas at Bullfrog, Halls Crossing, and Hite. Future actions that are currently funded or with a reasonable potential for future funding from the approved DCPs and amendments or other approved directives or construction activities could take place; however, the no-action alternative does not include these possible future developments as part of the existing condition. Although this alternative serves as a baseline for alternative comparison it does not fully accomplish the NPS project objectives or National Environmental Policy Act of 1969 (NEPA) goals. For example, the no-action alternative does not include operational activities and construction needed to accommodate water levels below 3,550 feet in elevation, and therefore does not address operational needs or constraints at lower lake levels. The no-action alternative does not provide for expansion of facilities and operations anticipated to be needed to meet increased future visitation demands. In addition, the no-action alternative only meets two of the six identified planning objectives. For these reasons, the no-action alternative was not selected.

Alternative C contains many of the components of the selected action, with some additional changes in location, type, or size of facilities, as well as some improvements and upgrades, and meets the six planning objectives stated in the DCP. Changes under alternative C include consolidation of the Halls Crossing campground and RV park, addition of an amphitheater in the consolidated campground, relocation of shower and laundry facilities to the campground, addition of a combined land-based visitor contact / ranger station and emergency facilities building at Halls Crossing, relocation of the Bullfrog NPS maintenance facility, an increase in wet moorage, and expansion of launch ramps. However, alternative C will use limited resources without realizing the maximum attainable recycling and reuse through expansion of facilities and relocation beyond that under the selected action. For this reason, alternative C was not selected.

Several combinations of alternatives were considered and dismissed. At Hite, various alternatives for continuing to launch boats at lower water levels were examined, including dredging a channel to provide boat access to the river channel or lake, hoisting large boats into the river channel, and establishing a launch ramp at Blue Notch, Farley Canyon, or White Canyon to access the upper reaches of the lake. All of these alternatives were considered cost prohibitive and will result in unacceptable impacts to natural resources.

Alternatives to the locations for various facilities were evaluated in all uplake developed areas; however, the facility locations presented in the action alternatives represent optimization of operational efficiencies. Alternatives to the size of various facilities were also evaluated; however, the facility sizes presented in the action alternatives represent the balance between providing adequate visitor services based on current and expected future visitation, and protecting natural and cultural resources.

## **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The environmentally preferred alternative is determined by applying criteria identified in section 101 of NEPA to each alternative considered. In accordance with NEPA, the environmentally preferred alternative will:

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.
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of non-renewable resources" (NEPA, section 101).

The selected action, alternative B, is the environmentally preferred alternative. After review of potential impacts to resources and visitors, and after incorporating measures into the selected action to avoid or minimize impacts, the selected action achieves the greatest balance between assuring a safe, healthful, and aesthetically attractive environment; accommodating a wide range of uses without degrading the environment or posing risks to health and safety; preserving and enhancing important aspects of a diverse national heritage; and achieving a balance between resource and visitor use.

Criteria 1 and 4 will be met under the selected action through mitigation measures that will reduce or eliminate environmental impacts resulting from increased development. The selected action will relocate facilities to improve the visitor experience, operational efficiency, and visual quality, which will meet criteria 2 and 3. Additional visitor facilities such as visitor accommodations, camping facilities, food service facilities, visitor use areas, and marina facilities will also improve the visitor experience, meeting criterion 3. The selected action will meet criterion 5 by increasing the amenities available to visitors while protecting the environment. The selected action will also meet criterion 6 through expanded use of renewable energy sources for the uplake developed areas.

In short, the selected action provides improved visitor experience, operational efficiency and visual quality, while resulting environmental impacts from such improvements are reduced or eliminated through mitigation measures.

## MITIGATION

Mitigation measures are presented below as part of the selected action. These measures have been developed to lessen the adverse effects of the selected action.

### General Considerations

- The NPS project manager will ensure that each project remains confined within the parameters established in the compliance documents and that mitigation measures are properly implemented.
- Construction zones will be identified and flagged before beginning the activity, and all disturbance will be confined to the flagged areas. All project personnel will be instructed that their activities must be confined to locations within flagged areas. Disturbance beyond the actual construction zone will be prohibited.
- All protection measures will be clearly stated in the construction specifications and workers will be instructed to avoid conducting activities beyond the construction zone, as defined by the construction zone flagging. This does not exclude necessary temporary structures such as erosion-control fencing.
- All tools, equipment, barricades, signs, and surplus materials will be removed from the project work limits upon project completion. Rubbish will be routinely removed from the project site. Any asphalt or concrete surfaces damaged due to work on the project will be repaired to original condition. All demolition debris will be removed from the project site.
- Staging for a construction office, construction vehicles and equipment, and materials storage will be located in previously disturbed areas, outside of high visitor use areas, and will be clearly identified in advance. All staging areas will be returned to pre-construction conditions once construction is complete.
- Contractors will be given orientation concerning proper conduct of operations. This orientation is provided in both written form and verbally at a preconstruction meeting. Orientation topics will include (and not limited to) the following:
  - Wildlife should not be approached or fed.
  - Collecting any park resources, including plants, animals, and historic or prehistoric materials, is prohibited.
  - Contractor must have a safety policy in place and follow it.
  - A vehicle fuel leakage and spill plan will be developed and implemented for the project prior to construction.

## **Sediment Control**

- Utah Department of Environmental Quality requirements, industry standards, and best management practices (BMPs) for drainage and sediment control will be implemented to prevent and/or control nonpoint source discharge to minimize soil loss and sedimentation in drainage areas. Use of BMPs for drainage area protection will include all or some of the following actions, depending on site-specific requirements:
  - Keep disturbed areas as small as practical to minimize exposed soil and the potential for erosion.
  - Locate waste and excess excavated materials outside of drainages to avoid sedimentation.
  - Install silt fences, temporary earthen berms, water bars, sediment traps, check dams, or other equivalent measures to control runoff, as necessary, prior to construction.
  - Conduct regular site inspections during the construction period to ensure that erosion-control measures are properly installed and are functioning effectively.
  - Store, use, and dispose of chemicals, fuels, and other toxic materials in the required and appropriate manner.
  - Revegetate disturbed areas as soon as possible after construction is completed.

## **Soils**

- Trenching or grading operations using manual or heavy equipment will follow industry standard stabilization methods. After trenching and grading is completed, backfill, compaction and regrading operations will be initiated as soon as possible to establish and maintain stable soil surfaces. Soil surfaces will be treated and restoration within approved NPS guidelines and specifications will be performed.
- Vehicle or equipment tracks will be eradicated and “raked out” after construction activities to reduce visual impact and reduce the possibility of visitors driving through soil-disturbed areas.
- Dust and soil control measures, including surface water spraying and revegetation using hydro mulch, will be incorporated into construction activities to reduce soil loss from wind erosion.

## **Paleontology**

If previously unknown paleontological resources are discovered during construction activities, all work in the immediate area of the discovery will cease until the resources could be identified and documented. If paleontological sites are discovered and cannot be avoided, the resource will be recorded and recovered using required compliance processes.

## **Air Quality**

- To reduce dust and fine particles from becoming airborne during construction activities, truck beds will be covered with tarps.

- To reduce tailpipe emissions, construction equipment will not be left idling any longer than is required for safety and mechanical operations.
- To reduce short-term construction dust, water sprinkling will be applied to problem areas. Construction limits will be established to minimize soil disturbance and blowing dust.
- Landscaping and revegetation will control long-term soil erosion and blowing dust. Mulch and plants will be used to stabilize the soil and reduce wind impacts across open areas where required.

## **Water Resources**

- A storm water management plan will be developed in compliance with Utah Department of Environmental Quality requirements. Additional permitting will be managed to comply with mitigation measures required by state and federal water quality and pollution prevention regulations.
- All activities and projects that occur below 3,700 feet (amsl) will adhere to the requirements of the USACE general lake wide permit, as required by section 404 of the Clean Water Act, and section 10 of the Rivers and Harbor Act.
- Measures from a hazardous spill plan will be in place and dictate preventive measures and required actions taken in the case of a hazardous materials spill.
- All equipment used within the NRA for operations and construction will be maintained in a clean and well-functioning condition to avoid leaks and contamination of resources from mechanical and automotive fluids.

## Floodplains

Appropriate state and federal regulatory permits and protection measures will be established prior to the start of any new construction projects.

## Vegetation

- In an effort to avoid introduction of nonnative/noxious plant species, imported topsoil will be certified free of weed seed contaminants.
- Most areas of new disturbance will be returned to native vegetation through revegetation or seeding. Natural restoration may be used, when appropriate and viable, based on seasonal rain patterns.
- Reclaimed areas will be monitored after construction to determine if revegetation efforts are successful with follow-up actions, as needed.
- Reclamation measures may include installation of erosion-control structures and reseeding with hydro-mulch stabilization.
- To avoid the introduction of nonnative plant species, hay bales will be limited in use because they often contain seeds of undesirable or harmful alien plant species. Straw wattles of appropriate plant species will be used to control soil erosion wherever possible. Application of NPS guidelines for noxious weed control measures will be incorporated into construction activities.
- Undesirable plant species will be controlled, as necessary. To prevent the introduction and minimize the spread of nonnative vegetation and noxious weeds, the following measures will be implemented during construction:
  - Minimize soil disturbance.
  - Pressure wash and/or steam clean all construction equipment to ensure that all equipment, machinery, rocks, gravel, or other materials are cleaned and weed free before entering Glen Canyon NRA.
  - Cover all haul trucks bringing asphalt or other fill materials from outside the recreation area to prevent seed transport.
  - Limit vehicle parking to existing disturbed areas where possible.
  - Obtain all fill, rock, or additional topsoil from the project area, if possible. If not possible, obtaining weed-free sources from NPS-approved sources outside the recreation area, as required.
  - Initiate restoration of disturbed sites immediately following construction activities.
  - Monitor disturbed areas following construction to identify growth of noxious weeds or nonnative vegetation. Treatment of nonnative vegetation will be completed in accordance with NPS – 13, *Integrated Pest Management Guidelines* and/or the Glen Canyon Integrated Pest Management Plan, which will be completed in 2006.

## Threatened and Endangered Species / State Species of Concern

Mitigation for impacts to threatened and endangered species and their designated critical habitat is based on consultation with the U.S. Fish and Wildlife Service (USFWS) under section 7 of the Endangered Species Act, and includes:

- Access road, restroom placement, and any other incidental actions needed to develop the Hite shoreline camping area will occur outside the southwestern willow flycatcher breeding season.
- Use of the camping area will be restricted to the non-breeding season for the southwestern willow flycatcher during low lake levels. These restrictions will be lifted should lake levels increase and inundate the habitat area. As the water rises and falls, the shoreline camping area will be adjusted accordingly.

Mitigation measures for Utah state species of concern will include:

- Mitigate for any impacts to bat species – all impacted buildings will be surveyed for bats prior to demolition or construction. Any bats found will be relocated per Utah Department of Natural Resource guidelines.
- Mitigation for the chuckwalla and the glossy snake will consist of surveys for species presence prior to disturbance, which may include relocation of detected individuals per Utah Department of Natural Resource guidelines, to prevent direct impacts from construction.
- Burrowing owl surveys will be completed and if found, will be relocated to artificial burrows away from construction areas.

## Visual Resources

Trenching for underground utilities will be limited to a 10-foot-wide fenced construction zone, if possible.

- All new construction will be consistent with established architectural themes and construction materials will complement natural colors and textures.
- The new stacked storage unit proposed for the Bullfrog secured storage area will be located outside of the primary viewshed and will blend into the natural landscape.
- Overall, muted natural colors will be used to blend any human-made surfaces with the landscape.

## Soundscapes

- Contractors will be required to properly maintain construction equipment (i.e., mufflers) to minimize noise.
- Noise-generating construction activities will be limited to approved hours of operation to minimize visitor impacts.

## Archeological Resources

- Prior to implementation of any undertakings (actions), a State Historic Preservation Office (SHPO) file search will be conducted to determine the location of any existing historic or prehistoric resources. As necessary, an appropriate level of survey and/or data recovery will be completed before work begins. In the unlikely event that unknown archeological resources will be uncovered during construction, work will be halted in the discovery area, the site secured, and Glen Canyon NRA staff experts will consult according to 36 CFR 800.13 and, as appropriate, provisions of the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA).
- In compliance with NAGPRA, the National Park Service will notify and consult concerned American Indian tribal representatives for the proper treatment of human remains, funerary, and sacred objects should these be discovered during the project.
- Archeological monitoring will be established on-site during any ground-disturbing activities in areas identified as culturally sensitive.
- Archeological specimens found within the construction area will only be removed by NPS archeologists or their designated representatives.

## Visitor Use and Experience

- The recreation area may restrict construction activities during peak use hours/days, such as holidays and weekends, to minimize disruption to visitors.
- Facilities that are relocated or are temporarily closed due to construction work will be signed with information on the location of the nearest similar facility or location for assistance.
- Unless otherwise approved by the National Park Service, construction operations will be restricted to the hours of 8:00 a.m. to 6:00 p.m. during the summer (May 1 through September 30), and 9:00 a.m. to 5:00 p.m. during the rest of the year to reduce visitor impacts.
- Information regarding construction projects or activities will be shared with the public upon entrance into the recreation area, or through other methods of informational distribution such as informational brochures, flyers, press releases, mailings, and Web sites.
- Management strategies to address carrying capacity issues at various water levels will target better distribution of launch activities throughout a 24-hour day. Methods to reduce launch backup may include broadcasts of real-time launch ramp conditions using the recreation area information radio system, on-site NPS staff visitor contacts, Web site postings, or a launch-time reservation system.
- Methods to allocate visitor use of shoreline campsites may include a camping reservation system to reduce impacts to specific visitor use zones and coordinate length of stay to further address carrying capacity issues.
- The existing “trash tracker” program is well established and incorporates volunteer houseboat trips to clean up beaches. Additionally, visitor education promoting responsible behavior and awareness of water quality and pollution issues are offered through NPS and concessioner visitor contacts, brochures, on-site programs, and Web site information. Trash bags are also made available to

visitors at no charge in support of the “pack it in / pack it out” program. These combined mitigations substantially reduce the adverse impacts of litter on beaches and in the lake.

## Park Operations

- Concessions will be notified at least 24 hours in advance of temporary utility outages and construction work within their land assignments.
- Whenever possible, length of outages will be kept to a minimum and scheduled on nonpeak usage hours to reduce economic impacts on concessions and visitor inconvenience.

## Public Health and Safety

A safety plan for project work in drainages and washes will be formulated and implemented to protect public health and safety should these activities take place during the rainy season. Whenever possible, construction in floodplains and washes will be avoided during the rainy season.

- All construction work in visitor use areas (parking lots, campgrounds, launch ramps, etc.) will be barricaded and signed in order to keep visitors at a safe distance from the construction zone.
- Based on the Occupational Safety and Health Administration (OSHA) and NPS patrol and construction management monitoring systems for land- and water-based safety, some construction areas in flash flood-prone areas may be closed to reduce public health and safety risks.
- Water activities on Lake Powell are regulated by U.S. Coast Guard and NPS regulations. Measures to manage concentrated visitor boating may include increased water patrols and designation of wakeless zones based on water surface reduction at lower lake levels. These measures will mitigate adverse impacts of increased boat density in specific visitor use zones.

## Transportation

Traffic in any one direction will not be stopped for more than 20 minutes to minimize disruption of traffic flow.

## WHY THE PREFERRED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

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

**Impacts that may be both beneficial and adverse:** These impacts may have both beneficial and adverse aspects. Overall, these impacts may be beneficial, but there may still be major adverse impacts that require analysis in an environmental impact statement. No major adverse or beneficial impacts were identified that will require analysis in an environmental impact statement.

The selected action will have either no impact or negligible impacts on historic structures, cultural landscapes, museum collections, wild and scenic rivers, other unique natural areas, prime and unique farmlands, environmental justice, Indian trust resources, land use, waters of the United States, wetlands and floodplains.

The selected action will result in short-term negligible adverse impacts to public health and safety due to construction in areas of condensed visitor use. Short-term negligible to minor adverse impacts to visual resources and NRA operations will result from construction activities. Short-term minor adverse impacts to geology will result from excavation for the underground water storage tank at Hite, to air quality from operation of construction equipment and distribution of dust into the air; to visitor use and experience due to the disturbance associated with construction; to threatened and endangered species and species of concern / designated critical habitat due to disturbance and noise from construction, and potential for increased sediment loads resulting from ground disturbance; and to transportation due to increased traffic and congestion during construction periods. Short- and long-term minor adverse impacts to wildlife will result from construction disturbance and increases in disturbed area.

Short-term beneficial impacts to the socioeconomic environment will be minor, resulting from construction activity.

Long-term impacts resulting from the selected action will be negligible to minor and adverse to paleontology due to potential for disturbance of paleontological resources during construction; to threatened and endangered species and species of concern / designated critical habitat from development of primitive camping at Hite, and relocation of launch and ferry ramps at Bullfrog and Halls Crossing at lower lake levels; and to archeological and ethnographic resources from continued visitor use in areas of cultural sensitivity, and ground disturbance associated with improvements. Long-term minor adverse impacts to geology will result from excavation associated with installation of the underground water tank at Hite; and to water quality from continued visitor use, and potential for spillage of boat fuels. Long-term minor to moderate adverse impacts to air quality will result from expanded facilities, anticipated increased visitor use, and dust distributed into the air from unpaved roads, launch ramps, and parking areas at lower lake levels. Long-term moderate adverse impacts to vegetation will result from new and expanded facility construction, and more intense development of primitive campsites. Long-term impacts to soundscapes from the selected action will vary seasonally and be negligible to moderate and adverse.

Long-term negligible to minor beneficial impacts to public health and safety will result from infrastructure improvements and separation of park operations facilities from visitor use facilities and areas. Long-term beneficial impacts will be minor to visual resources due to relocation of some facilities out of the main visitor use area; to visitor use and experience through expanded and improved facilities; to park operations from reduced maintenance and repair requirements from upgraded facilities; and to transportation resulting from consolidation of like activities, centrally locating facilities to reduce traffic, and improved circulation patterns. Long-term, minor to moderate beneficial impacts to the socioeconomic environment will result from increased business opportunities associated with expanded commercial services.

**Degree of effect on public health or safety:** Short-term impacts to health and safety from the selected action will be negligible and adverse due to potential hazards encountered by workers during construction. Long-term impacts to health and safety will be negligible to minor and beneficial resulting from relocation of concessioner maintenance facilities away from the Village Centers, further separating operational functions from visitor use areas. At this time safety is not indicated as a limiting factor for carrying capacity on Lake Powell. Should monitoring of Lake Powell indicate that safety is becoming problematic, portions of or the entirety of a zone could be designated as wakeless. Boats moving at slower speeds require much less time and space to avoid collision, therefore a wakeless requirement will allow a greater number of boats to operate safely in a zone.

**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:** As described in the environmental assessment, prime and unique farmlands, wild and scenic

rivers, and other unique natural areas will not be affected. There are no known Indian trust resources identified in the project area that could be affected by the current project actions.

The jurisdictional limits of waters of the United States have been established by the USACE as occurring at the 3,700-foot elevation along the shoreline of Lake Powell. Due to fluctuating water input, the actual level of the water is often times much lower. A variety of mostly nonnative noxious weeds typically grow in this band of soil between 3,700 feet and the actual waterline. These plants are generally not recognized as wetlands plants and this area does not contain appropriate hydric soils. While there may be some inundation during certain times of the year, this area does not meet the definition of a wetlands by either the USACE or USFWS standards and therefore is only protected as waters of the United States, not as “wetlands.” Small areas of wetlands do occur within the footprint of Bullfrog and Halls Crossing. Additionally, wetlands may also occur along the banks of the Colorado River in the Hite area.

New facilities under the selected action fall within limits of the existing USACE 404 permit or require an update to change the maximum number of allowable floating facilities such as increased number of buoys, upgrades to fuel and courtesy docks, and pumpouts. New construction or expansion of marina facilities is expected to have minor, short- and long-term impacts and will be managed through the 404 permit. Wetlands in the uplake areas at lower lake elevations have not been mapped. However, the new construction in the uplake developed areas is not expected to impact areas where wetlands could be present, except potentially for primitive camping located along the Colorado River during low water conditions at Hite, and the relocation of launch and ferry ramps and associated access and parking at all uplake developed areas during low water conditions. Facilities will be located to avoid wetlands to the extent possible. Should any wetlands be unavoidable during relocation of facilities at lower water levels, mitigation measures will be implemented. Impacts to wetlands under the selected action will be short and long term, negligible to minor, and adverse.

**Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historical resources:** The Bullfrog, Halls Crossing, and Hite areas have undergone numerous archeological surveys over the years. The most extensive and recent survey at Hite identified eleven prehistoric sites and 24 isolated finds were recorded. No historic sites were noted. Seven of the sites are considered eligible for the NRHP. A recent survey at Bullfrog and Halls Crossing, identified 25 sites at Halls Crossing. Of the sites recorded at Halls Crossing, nine (all lithic scatters) were considered NRHP-eligible. The same survey located 14 sites at Bullfrog. Of the sites recorded at Bullfrog, eight (all lithic scatters) are considered NRHP-eligible.

Existing impacts to archeological resources will remain. Potential additional impacts will be associated with ground-disturbing activities. Up to 83.9 acres may be disturbed under the selected action. However, the area has been surveyed for archeological resources and site density is low. NRHP-eligible sites will be avoided to the greatest extent possible. It is not expected that any known sites will be affected. If disturbance of an eligible site is unavoidable, NRA staff will mitigate adverse effects through documentation and other means deemed appropriate in consultation with the SHPO.

If it is determined that ground disturbance will occur in a previously unsurveyed area, an archeological clearance survey will be completed and development plans will be modified to avoid or minimize impacts to archeological resources. Therefore, impacts from the selected action are long term, localized, negligible to minor, and adverse, depending on the activity and site. After applying Advisory Council on Historic Preservation criteria of adverse effect (36 CFR 800.5), the National Park Service determined that the activities proposed in the selected action will have *no adverse effect* to archeological resources.

Many Glen Canyon NRA resources are considered sacred by American Indians. These include, but are not limited to, the Colorado and San Juan rivers, their side canyons, and the landscapes in which they occur. Five contemporary American Indian tribes are associated with Glen Canyon: the Hopi, Kaibab Paiute, Navajo, San Juan Southern Paiute, and Ute Mountain Ute. Other groups that have an ethnographic interest in the NRA include the Kanosh and Koosharem bands of the Paiute Indian Tribe of Utah, the Havasupai Tribe, and Hualapai Tribe. The entire Halls Crossing developed area has been declared a traditional cultural property based on consultation and ethnographic evidence.

Visitor use in areas of ethnographic resources results in trampling of sites and moving of resources. Glen Canyon NRA contains a number of ethnographic resources and although much of the developed areas have been disturbed, there are areas where ethnographic resources could be present. Site-specific impacts from visitor activities are long term, negligible to minor, and adverse. Impacts from recreation area operations, such as minor trail realignments and the installation of vault toilets, constitute a long-term, minor, localized, adverse impact to ethnographic resources.

Because the entire Halls Crossing area is considered a traditional cultural property, any activities in this area will have the potential to adversely affect ethnographic resources. The Halls Crossing area is already highly developed and any specific future development will be planned in consultation with the SHPO and any interested stakeholding tribes. Therefore any major adverse impacts will be mitigated. With mitigation, impacts under the selected action are resource-specific, long term, negligible to minor, and adverse. After applying Advisory Council on Historic Preservation criteria of adverse effect (36 CFR 800.5), the National Park Service determined that the activities proposed in the selected action will have *no adverse effect* to ethnographic resources.

**Degree to which effects on the quality of the human environment are likely to be highly controversial:** There were no highly controversial effects identified during either preparation of the environmental assessment or the public review period.

**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 environmental assessment 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 selected action neither establishes a National Park Service precedent for future actions with significant effects nor represents a decision in principle about a future consideration.

**Whether the action is related to other actions with individually insignificant, but cumulatively significant impacts:** The environmental assessment analyzed impacts to land use, soils and geology, paleontology, air quality, water resources, waters of the United States, including wetlands, floodplains, vegetation, wildlife, threatened and endangered species and species of concern / designated critical habitat, visual resources, soundscapes, archeological resources, ethnographic resources, visitor use and experience, socioeconomic environment, park operations, public health and safety, and transportation. As described in the environmental assessment, cumulative impacts were determined by combining the impacts of the selected action with other past, present and reasonably foreseeable future actions. Projects that make up the cumulative impact scenario include:

## Road and Highway Improvements

- The Burr Trail is a historic road that begins at Boulder, Utah, terminating at State Highway (SH) 276, north of the Bullfrog developed area within Glen Canyon NRA. The Burr Trail connects to Utah SH 24 to the north via Notom Road. The Burr Trail has been upgraded on BLM lands, and improvements have been made to the Burr Trail and Notom Road in areas outside of Capitol Reef National Park. The National Park Service has released a final environmental impact statement (December 2005) proposing a range of modifications to the Burr Trail within Capitol Reef National Park. Collectively, the past and proposed improvements and modifications to the Burr Trail could make an attractive alternative route for visitors traveling from points in northern Utah via SH 24, and from Boulder, Utah.
- SH 24 is a primary route of access for visitors to the uplake developed areas within Glen Canyon NRA traveling from points north and west. Utah Department of Transportation (UDOT) has undertaken complete reconstruction of SH 24 between Lyman and Bicknell, Utah. Work on this project is anticipated to continue through September 2006.
- UDOT has no major reconstruction projects planned for highways in the area of the uplake district of Glen Canyon NRA. Future projects include chip sealing and overlay, with each project estimated to be three to five days in duration. These projects will result in some minor traffic delays due to one-lane traffic during construction.

**Proposed Petroleum Exploration Well in Glen Canyon NRA.** The National Park Service and the BLM are in the process of preparing an environmental assessment for a proposed petroleum exploration well within Glen Canyon NRA. The well would be drilled in the Circle Cliffs area. Access to the 2-acre well site would be over several miles of paved or graded dirt roads in the NRA and over existing roads in Grand Staircase – Escalante National Monument.

**Development in Surrounding Areas.** Areas nearby, but outside NRA boundaries (Ticaboo and Halls Crossing Airport) present opportunities for development and expansion of visitor services (secured storage, launching services, etc.).

Resume Operations at the Shootaring Canyon Uranium Processing Facility. The Shootaring Canyon Uranium Processing Facility (mill) is located in Garfield County in Southeastern Utah. It is about 21 km (13 miles) north of Bullfrog Basin Marina and 77 km (48 miles) south of Hanksville. Plateau Resources Limited started commercial operations on June 1, 1982, but, due to the continued decline in the market for yellowcake, suspended operations at the facility on August 18, 1982. Plateau is requesting permission to resume operations of the Shootaring Canyon Uranium Mill facility. Unavoidable adverse environmental impacts associated with operating the mill includes the release of small quantities of radionuclides, diesel exhaust from operating the electrical generator, and vehicle exhaust from workers going to and from work. In addition, it is estimated that an average of 40 ore trucks per day will be received at the site creating additional traffic on Highways 24, 95, and 276 (Plateau, January 2006).

The selected action, along with past, present, and reasonably foreseeable future actions, will have no impact to land use. Short-term, negligible, adverse cumulative impacts will occur to water quality. Short-term, negligible to minor, adverse cumulative impacts will occur to air quality and health and safety. Short-term, minor, adverse cumulative impacts will occur to visual resources, visitor use and experience, and transportation. Short-term, minor to moderate adverse cumulative impacts to soundscapes will vary seasonally and with construction activities. Long-term, negligible to minor adverse cumulative impacts will occur to air quality, paleontology, archeological resources, and ethnographic resources. Long-term, minor, adverse impacts will occur to soils and geology. Short- and long-term, negligible to minor, adverse cumulative impacts will occur to waters of the United States and/or wetlands, and floodplains. Short- and long-term, minor, adverse cumulative impacts will occur to wildlife, threatened and endangered species and species of

concern / designated habitat; and park operations. Short- and long-term, moderate adverse cumulative impacts will occur to vegetation. Short-term, negligible to minor, beneficial cumulative impacts will occur to socioeconomics. Long-term, minor beneficial cumulative impacts will occur to park operations. Long-term, minor, and adverse and beneficial cumulative impacts will occur to transportation. Long-term, minor to moderate, beneficial cumulative impacts will occur to visitor use and experience, and socioeconomics.

**Degree to which the action may adversely affect an endangered or threatened species or its critical habitat:** In accordance with threatened or endangered species consultation and coordination activities, the USFWS identified 19 listed and one candidate species for portions of Garfield, Kane, and San Juan counties, Utah. Within the analysis area, suitable habitat for one federally listed endangered species (southwestern willow flycatcher) and one federally listed threatened species (bald eagle) occurs.

Glen Canyon NRA supports designated critical habitat for four endangered fish species. These are the razorback sucker (*Xyrauchen texanus*), Colorado pikeminnow (*Ptychocheilus lucius*), humpback chub (*Gila cypha*), and the bonytail chub (*Gila elegans*). Designated critical habitat for these fish occurs in portions of the Colorado, Dirty Devil, and San Juan rivers, including their 100-year floodplains up to the full pool elevation of Lake Powell (50 CFR Part 17, 1994) and North Wash. Some of this habitat occurs in the Hite area. The bonytail is no longer present in the upper basin of the Colorado River and is believed to be the most endangered of these four native fish species. Within the analysis area, designated critical habitat exists for only two of these fish: the Colorado pikeminnow and the razorback sucker.

Under the selected action, the project work will increase the accommodation of visitors in the uplake developed areas, likely resulting in a general increase in human activity and noise. Construction activities will result in short-term, minor, adverse impacts to threatened and endangered species, designated critical habitat, and State of Utah species of concern because of the use of heavy equipment, noise, and the potential for increased sediment loads to reach lake waters. However, much of the proposed construction in the developed areas will occur in areas already heavily disturbed and where human activity is already concentrated. There will be long-term, minor, adverse impacts to threatened and endangered species, designated critical habitat, and State of Utah species of concern. The activities proposed under the selected action that will potentially occur outside the current developed area or in areas most likely to impact threatened or endangered species, designated critical habitat, and State of Utah species of concern will include the development of shoreline camping along the Colorado River at Hite during low water levels and the relocation of launch and ferry ramps at Bullfrog and Halls Crossing, as needed, when water levels drop. These activities will occur in areas not previously disturbed and the primitive shoreline camping at Hite is likely to occur in a riparian area that is suitable habitat for southwestern willow flycatcher. Mitigation for potential minor impacts to southwestern willow flycatcher will include timing the construction work outside of breeding season. Camping will also be restricted in the low water shoreline camping area at Hite during breeding season. Also under the selected action, 4.7 acres at Bullfrog and 10.7 acres at Halls Crossing will be restored to semidesert grassland and shrubland providing habitat for some listed species and a negligible to minor beneficial impact that will offset some adverse impacts resulting from proposed development. Overall, the impacts to threatened and endangered species, species of concern, or their critical habitat will be short and long term, minor, and adverse.

The Utah State listed species of special concern considered in the environmental assessment include the burrowing owl, common chuckwalla, glossy snake, fringed myotis, Townsend's big-eared bat, and the big free-tailed bat. Burrowing owls are known to nest adjacent to the airstrip that serves Bullfrog. The airstrip is not included within the analysis area for the environmental assessment, so this species is not likely to be adversely affected by the selected action. The three bat species inhabit caves, mines, and buildings. The selected action will result in upgrading and relocation of some buildings in the developed areas that could currently contain bats. To mitigate for any impacts to bat species, all buildings that will be impacted will be surveyed for bats prior to initiating demolition/construction and any bats found will be relocated.

The common chuckwalla are predominantly found near cliffs, boulders, or rocky slopes where they use rocks as basking sites and rock crevices for shelter. Habitat of this type may be disturbed with the selected action. Impacts to this species from the selected action will be short and long term, minor, and adverse. Similarly, the glossy snake although never sighted in the area, may occupy barren desert open ground in sand or rocky areas, some of which may potentially be disturbed by the selected action. Impacts to this species from the selected action will be short and long term, minor, and adverse. Mitigation for these two reptiles will consist of surveys for species' presence prior to disturbance and potentially collection and movement of individuals to prevent direct impacts.

**Whether the action threatens a violation of federal, state, or local environmental protection laws:** The selected action violates no federal, state, or local environmental protection laws.

## **IMPAIRMENT OF PARK RESOURCES OR VALUES**

The implementation of the selected action will not constitute an impairment of park resources or values. Impacts documented in the environmental assessment and summarized above will not affect resources or values key to the natural and cultural integrity of the park or alter opportunities for the enjoyment of the park. The selected action will not impair park resources and will not violate the National Park Service Organic Act. This conclusion is based on a thorough analysis of the impacts described in the environmental assessment, the lack of agency and public comments received, and the professional judgment of the decision maker, in accordance with the NPS *Management Policies 2006*. As described in the environmental assessment, implementation of the selected action (preferred alternative) will not result in major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Glen Canyon NRA, (2) key to the natural or cultural integrity of the park, or (3) identified as a goal in the park's general management plan or other relevant NPS planning documents.

## PUBLIC INVOLVEMENT AND AGENCY CONSULTATION

The National Park Service sent out project scoping brochures to a mailing list of approximately 1,800 individuals known to have interest in Lake Powell in general, or that use the uplake developed areas in particular. Two public scoping workshops were conducted in February 2004. One was held in Bullfrog, Utah, and the other in Grand Junction, Colorado. These meetings addressed various aspects of the planning process and gave the public an opportunity to provide input. Approximately 69 people attended the Grand Junction meeting and approximately 18 people attended the Bullfrog meeting. A total of 156 comments were received by letter, e-mail, and in person at the public workshops.

A series of open house events were held in July 2004, at various locations in the Bullfrog and Halls Crossing developed areas. These informal sessions offered visitors using the uplake facilities an opportunity to look at maps, consider preliminary issues, and offer input on the effect of low water conditions on their Lake Powell experience. A second newsletter with updated schedule information and draft project alternatives was sent to a revised mailing list of approximately 2,400 individuals, agencies, and organizations in August 2004.

The NPS Native American liaison also solicited input from affiliated tribes by attending tribal meetings and via project correspondence. Project updates were presented at regular tribal meetings.

The draft DCP/ EA was made available for public and agency review and comment from July 18, 2006 to September 8, 2006. Glen Canyon NRA provided copies of the document to approximately 100 agencies, organizations, and interested parties from the park mailing list. In addition, the document was available for review at the visitor centers, regional and local libraries, the NPS Park Planning Web site (PEPC), and interested parties could contact the park by telephone or mail and request copies of the document. Eight responses were received: five from private individuals of which two were duplicates that generally supporting the selected action, one response came from a tribal government confirming no comment on the document, and two responses came from other organizations including a state agency and the current park concessioner for the uplake districts. Substantive comments were addressed through errata sheets.

The National Historic Preservation Act, as amended (16 USC 470 *et seq.*), NEPA, National Park Service Organic Act, NPS *Management Policies 2006*, Director's Order – 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making* (2001), and Director's Order – 28: *Cultural Resources Management Guideline* require the consideration of impacts on cultural resources, either listed in or eligible to be listed in, the National Register of Historic Places. Compliance with section 106 of the National Historic Preservation Act was completed through the NEPA process. Copies of the DCP / EA were received by the Utah SHPO for review September 12, 2006. The SHPO responded via a letter dated September 22, 2006 indicating concurrence with a determination of “no adverse effect”.

Compliance with section 7(c) of the Endangered Species Act of 1973, as amended, was completed through informal consultation with the U.S. Fish and Wildlife Service (USFWS). The USFWS was contacted to request lists of any threatened or endangered species or species of concern or habitat potentially occurring within the vicinity of the project via a letter dated April 12, 2004. The USFWS responded with a species list in a letter dated June 14, 2004. A letter dated June 23, 2006 was submitted to the USFWS, and the USFWS indicated concurrence with a finding of “may affect – is not likely to adversely affect.”

## CONCLUSION

The selected action (preferred alternative) does not constitute an action that normally requires preparation of an environmental impact statement. The selected action (preferred alternative) will not have a major impact on the human environment. Negative environmental impacts that could occur in the short term are considered negligible to minor in intensity and negligible to moderate in intensity in the long term. Mitigation measures will be incorporated into the selected action (preferred alternative) to reduce or eliminate these impacts. Beneficial impacts from the selected action are considered to be minor in the short term, and ranging from negligible to moderate in the long term. There are no foreseen significant adverse impacts on public health, public safety, threatened or endangered species, historic properties, either listed in or eligible for listing in the NRHP, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the selected action will not violate any federal, state, or local environmental protection laws, nor will it cause impairment of park resources or values.

Based on the foregoing, it has been determined that an environmental impact statement is not required for this project and, thus, will not be prepared.

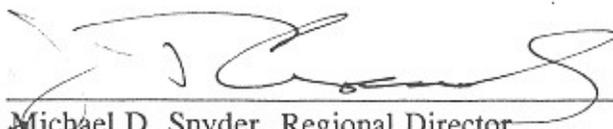
Recommended:

  
Kitty L. Roberts, Superintendent  
Glen Canyon National Recreation Area

JAN 19 2007

Date

Approved:

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

1/24/07  
Date

## ERRATA SHEETS

### Final Uplake Development Concept Plan Environmental Assessment and Determination Of Effect

#### GLEN CANYON NATIONAL RECREATION AREA

The Draft Uplake Development Concept Plan/Environmental Assessment (DCP/EA) was made available for an extended public review and comment period between July 18 and September 8, 2006. Seven requests were received to obtain printed or compact disk copies of the document and one request was received to extend the review period. Document comments at the end of the review period totaled eight, and were received by letter or posted to the National Park Service's Planning, Environment and Public Comment (PEPC) website. The comments came from the following sources:

#### **No of Correspondence - Source**

- 1 - State of Utah – Resource Development Committee/ Governors Office
- 1 - Zuni Heritage and Historic Preservation Office
- 5 - Unaffiliated individuals
- 1 - ARAMARK, Glen Canyon Uplake Concessioner

Pursuant to the *National Environmental Policy Act* (NEPA), responses were prepared for all substantive comments. *Substantive comments* are comments that raise an issue regarding law or regulation, agency procedure or performance, compliance with stated objectives, validity of impact analysis, or other matters of practical or procedural importance. Substantive comments require a response or a corresponding revision in the final environmental assessment text. *Non-substantive comments* are comments that offer opinions or provide information not directly related to issues or impact analyses. Non-substantive comments are used as background information for the environmental assessment team, but do not require a formal response.

The substantive comments received were centered around the following topics: economic feasibility, employee, concessioner and partner housing; ramifications of the preferred alternative on aspects of concession operations; launch ramp reservation systems; opportunities for partnership in facility utilization; and concern regarding the river runner takeout. These comments are addressed below. Some of the comments resulted in minor changes to the text of the environmental assessment to add factual information or clarification. Additions to text in the DCP/EA are underlined below.

#### **ISSUE: ECONOMIC FEASIBILITY**

**Comment:** We would expect any development improvements would be subject to feasibility studies that review lake levels, economic and market conditions. Funding sources should include Concessions Facility Improvement Program (CFIP), concession fee and maintenance reserve funds, as well as government appropriations and direct concession capital funding. An appropriate mix of revenue and non-revenue producing projects should be targeted.

**Public Comment:** 34003 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** The following sentence has been added to the end of the first paragraph under the heading of Alternative B (Preferred Alternative) on page 54: The DCP describes the development improvements

management housing accommodations. Total would be 186 dorm units and 85 trailer or apartment style accommodations.

**Public Comment:** 34012 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** The DCP / EA discusses the existing housing inventory and future additions in terms of “units” rather than the number of beds. The number of housing “units” allowed for under the DCP / EA is consistent with the Housing Master Plan, and the concept of units that could fit within the boundary identified for the housing areas. Each “unit” would vary in the number of beds that could be accommodated, therefore at this level of planning, the number of beds is not specified. Site-specific plans detailing numbers of beds will be developed in the future.

## ISSUE: CONCESSION OPERATIONS

**Comment:** We do not understand the need to relocate the Halls Crossing maintenance building, nor does it seem economically feasible.

**Public Comment:** 34004 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** One of the objectives of the Uplake DCP is to guide efficient and effective organization of services within the uplake developed areas. The purpose of relocating the Halls Crossing maintenance building is to achieve separation of operational functions and facilities from visitor use areas. Relocation of the maintenance building would remove the operational functions and facilities from the parking area associated with the floating marina facilities and would allow for development of a public boat wash down area in this primary visitor use area. Economic feasibility and project prioritization will be evaluated as funding becomes available

**Comment:** Below ground water tank at Hite is not technically or economically feasible.

**Public Comment:** 34005 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** As described on page 65 of the DCP / EA, the use of blasting may be required in order for installation of a below ground water tank at Hite to be feasible in this area of shallow soils. With regard to economic feasibility, as described under economic feasibility above, text has been added on page 54 to stipulate that components of alternative B would be undertaken as individual projects are prioritized, determined to be economically feasible, and project funding is identified.

**Comment:** Notably missing from the work to date in the no-action column is the re-statement of the current DCP limits for all uplake marinas. Current approved Houseboats, powerboats and PWC’s in a manner that is inclusive of the Halls and Hite marinas should be included. The existing DCP allows for a total of 660 rental boats. This draft plan erroneously seems to limit the concession to a total of 580 rental boats. The limit needs to be 660 or more. We recommend a formula like that applied to Antelope Point be applied reflecting at least the totals from the previous DCP for Hite, Halls and Bullfrog. The Uplake Development Concept Plan should consist of the following water based rental elements and potential ranges and allow for dock expansion to accommodate a larger rental fleet:

Houseboat Rental Fleet	155 to 330
Power boat Rental Fleet	60 to 330
Jet Skis	20 to 80

**Public Comment:** 34006 (excerpt from ARAMARK, Electronic letter received 9/8/06)

that the National Park Service intends to implement over the next 15 to 20 years. Full implementation of the DCP could lie many years in the future. Components of alternative B (preferred alternative) would be undertaken as individual projects are prioritized, determined to be economically feasible, and project funding is identified.

**Comment:** At Bullfrog, it is not economically feasible to build a new warehouse, boat repair, and property maintenance facilities next to the generators.

**Public Comment:** 34017 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** One of the objectives of the Uplake DCP is to guide efficient and effective organization of services within the uplake developed areas. The purpose of relocating the warehouse and maintenance facilities is to achieve separation of operational functions and facilities from visitor use areas. With the removal of these facilities from the visitor use area, the view shed will be improved and visitor services will be expanded and consolidated in one area. This plan component of the preferred alternative would be evaluated for economic feasibility and prioritized for project funding during the course of plan implementation.

**Comment:** Page 288, draft shows investment required at over \$24.7 [million] at [Bullfrog], \$23.4 [million] at [Halls Crossing] and \$8.3 [million] at Hite. Current economic conditions do not make these investments feasible.

**Public Comment:** 34020 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** The following sentence has been added to the end of the first paragraph under the heading of Alternative B (Preferred Alternative) on page 54: The DCP describes the development improvements the National Park Service intends to implement over the next 15 to 20 years. Full implementation of the DCP could lie many years in the future. Components of alternative B (preferred alternative) would be undertaken as individual projects are prioritized, determined to be economically feasible, and project funding is identified.

## ISSUE: EMPLOYEE CONCESSIONER, AND PARTNER HOUSING

**Comment:** The requirement for concessioner trailers being replaced with permanent housing should be completed over time and as economically feasible. We agree that the quality of employee housing is critical to our long term recruiting and service delivery. We recommend the development concept plan reflect flexibility to use modular or pre-manufactured technology to be cost effective.

**Public Comment:** 34008 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** With regard to economic feasibility and consideration of pre-manufactured housing technology, text has been added to consider construction methodologies as projects are designed, prioritized, evaluated for economic feasibility, and funded.

Page 55: “At Bullfrog, all long-term employee housing will be consolidated into one area northeast of the Bullfrog campground over time as determined economically feasible and as project funding becomes available. Trailer housing will be replaced with permanent housing comprising single-family homes, duplex, and multiplex units. Due to rapid changes in pre-manufactured building technologies, certain types of manufactured housing

on permanent foundations may be considered as replacement housing units, but would be subject to specific design planning and analysis to meet the project objectives. Seasonal employee housing will be upgraded and expanded at the existing site southwest of secured storage. The current concessioner trailer housing area will be reclaimed.”

**Comment:** The increases in seasonal and permanent housing are:

- Too low to accommodate employees required for an additional 100 lodge rooms and expanded restaurant,
- Too low to accommodate a larger rental fleet based entirely at [Bullfrog] at certain lake elevations
- And too low to reflect the possibility of overhead personnel currently residing and working Page moving to Bullfrog should existing concessioner not be successful in new bid for down lake contract.

**Public Comment:** 34011 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** Housing levels and housing area boundaries were identified in the Bullfrog Housing Master Plan, June 1998, based on possible future changes of facilities and services for the area. Although the plan proposes a maximum number of units within a defined area, specific building design will be refined as project funding and priorities are evaluated in support of operational requirements. Two changes to the DCP / EA are required:

- Page 33, first paragraph under the heading of Employee, Concessioner, and Partner Housing, is revised as follows: “Employee housing is provided within Glen Canyon NRA at Bullfrog, Halls Crossing, and Hite. There are a variety of types of units and locations for housing in each area to accommodate permanent and seasonal employees of the National Park Service, concessioners, and “partner” agencies such as state of Utah local representatives (Division of Wildlife Resources, Utah Division of Parks and Recreation), medical clinic staff, tri-county sheriff, and Kane County school employees. Housing is provided for staff to meet operational requirements and emergency response requirements. Meeting these housing needs is essential because of the remote nature of the location, utilization of seasonal employees, and because little or no private housing is currently available for rent outside the recreation area. All available permanent housing is typically occupied, and seasonal housing is currently fully occupied during the summer months.
- Page 55, second paragraph under the heading of Employee, Concessioner, and Partner Housing, second sentence revised: “Privately owned housing for rent or purchase outside the NRA is currently nonexistent, but would be expected to develop over time. Up to 4 additional NPS housing units (for a total of up to 29 units), up to 24 additional concessioner housing units (for a total of up to 197), and up to 6 additional partner housing units (for a total of 14) would be added at Bullfrog to serve the school and provide staff for interagency law enforcement. The 24 additional concessioner housing units would consist of construction of an additional dormitory or efficiency unit building within the seasonal housing area shown on figure 21. If housing availability outside the park near uplake development areas does not change, housing levels may be re-evaluated to address operations and emergency response requirements.”

**Comment:** Based on current 96 dorm units and 70 trailer or concessioner units, the Uplake Development Concept Plan should include the authority to add 90 more dorm beds and 25 more

**Response:** The DCP preferred alternative identifies the maximum number of wet moorage uplake and incorporates the changes in operation at Hite. A shared allocation of rental boats, and slips between Bullfrog and Halls Crossing is part of the preferred alternative to adapt to changing water levels, visitor preferences, and other factors. Specific formulas to determine the appropriate combination of rental boats, rental slips, etc are managed through the concession contract, while the total wet moorage are defined in the DCP preferred alternative and are limited to 1,145.

**Comment:** Draft revision does not allow for any expansion in the number of slips (including those needed for Exec Service); it states that 55 buoys can be added but that has to be reduced by the 16 existing NPS slips.

**Public Comment:** 34007 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** All floating facilities in the DCP were counted and added to develop limits for maximum allowable wet moorage as shown on page 50, table 3. Previous DCP's differ in that they proposed specific breakdown of types and location of wet moorage. As stated previously, these specific formulas used to determine the appropriate combination of rental boats, rental slips, administrative slips etc., are managed through the concession contracts to allow for greater flexibility in management during changes in water levels, visitor preferences, and other factors.

**Comment:** Family unit replacement, draft does not specifically allow for modular or pre-manufactured units.

**Public Comment:** 43014 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** Manufactured structures on permanent foundations could be considered through an approval process in conjunction with development of site-specific plans and designs.

**Comment:** Draft shows adding at Hite 15 family units, upgrading 25 camp sites, adding a shower laundry, etc. – not sure this will be economically feasible for some time and should be tied to sustainable lake levels above 3640' and should allow modular construction to be utilized for family unit replacement at all locations.

**Public Comment:** 34015 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** With regard to economic feasibility, as described under economic feasibility above, text has been added on page 54 to stipulate that components of alternative B would be undertaken as individual projects are prioritized, determined to be economically feasible, and project funding is identified.

Manufactured structures on permanent foundations could be considered through an approval process in conjunction with development of site-specific plans and designs.

## ISSUES: LAUNCH RAMP RESERVATION SYSTEM

**Comment:** Page 88 – construction times are limited; the draft is proposing a launch ramp reservation system which would only be needed 2 to 3 times a year and would not make sense to implement.

**Public Comment:** 34018 (excerpt from ARAMARK, Electronic letter received 9/8/06)

**Response:** Page 88 of the DCP / EA states, “Methods to reduce launch backup *may include*...a launch-time reservation system” (emphasis added). The purposes of a launch-time reservation system, should one be implemented, would be to help alleviate launch ramp congestion during periods of heavy use and possibly address boater distribution which is a factor in carrying capacity calculations. Implementation of a launch ramp reservation system would not be related to construction times.

## ISSUES: PARTNERSHIP FACILITY UTILIZATION

**Comment:** Several times over the last 10 years there have been efforts by Utah State Parks and the Utah Division of Wildlife Resources to build a storage/light maintenance building at Bullfrog for the patrol boats and equipment that both agencies have in the area. At one point the NPS was also interested in relocating their maintenance building and forming a partnership to have a joint agency building. Over the years there has been a lack of funding and changes in personnel that have kept this project from getting off the ground. In the plan, a partnering agency maintenance/storage building should be identified in the preferred alternative.

**Public Comment:** 34028 (excerpt from State of Utah, Letter received 8/14/06)

**Response:** Construction of a partner storage/light maintenance building for official equipment and vessels could be accomplished within the existing NPS maintenance area as identified in the DCP / EA with no changes to the impacts identified. Specific design and on-site layout would be determined as funding becomes available.

## RIVER RUNNER TAKEOUT

**Comment:** There needs to be an adequate River Runner take out provided in the Hite area at all water levels. This is not identified in any of the plan’s alternatives. Due to low water levels over the last 3 or 4 years, Utah State Parks has helped to fund a take out point on the opposite side of the river and upstream from Hite. The plan needs to insure that river runners will be able to continue to take out at Hite. The river running community is one of the main sources of the Moab area economy.

**Public Comment:** 34029 (excerpt from State of Utah, Letter received 8/14/06)

**Response:** On page 54 of the DCP / EA, the river runner takeout is addressed:

The Hite public launch ramp serves as the take-out point for rafters on the Colorado River at the inlet to Lake Powell. The launch ramp takeout is usable between 3,700 to 3,620 feet lake levels. Below that elevation, the river runner takeout is relocated to a temporary location upstream and across from the Hite launch ramp. Under the no-action alternative, Glen Canyon NRA would continue to maintain a takeout at Hite. Because the river channel is subject to meandering and movement, the low water takeout may not always function due to changes in topography, shoreline access, and siltation patterns. If conditions occur that the low water takeout or the Hite ramp no longer functions for this use, additional site investigation, compliance, and U.S. Fish and Wildlife Service consultation would be required to relocate this facility to another place along the river channel.

On page 54 of the DCP / EA, the last sentence of the second paragraph under the heading of Alternative B (Preferred Alternative) states, “Those facilities that would remain unchanged from the existing condition, except for routine maintenance and repairs would include the following:” The last bullet at the top of page 55 is the river runner takeout at Hite, indicating that the river runner takeout would be maintained at Hite, as described on page 54.

**Comment:** Any improvements in schools, medical services, and food services would be a benefit to partnering agencies, concessions and NPS employees and families living in the area.

**Public Comment:** 34031 (excerpt from State of Utah, Letter received 8/14/06)

**Response:** The preferred alternative includes improvements to a variety of support facilities including, housing, food service upgrades and a library expansion.

## **ACTIONS THAT MAKE UP THE CUMULATIVE IMPACTS SCENARIO**

The National Park Service recently became aware of an additional project to include in the cumulative impacts scenario. The following changes to the DCP/EA are required:

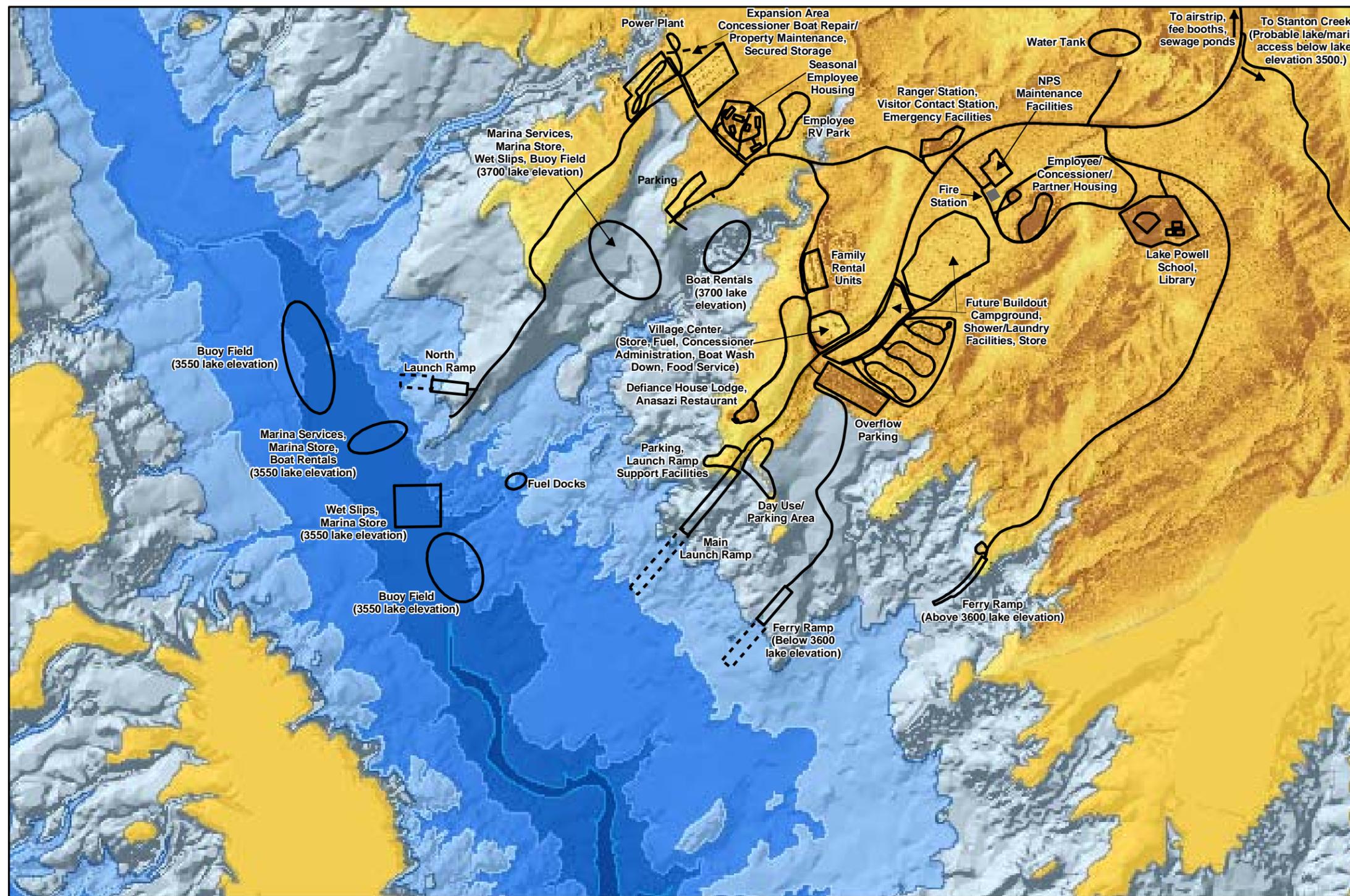
Page 152:

### **Resume Operations at the Shootaring Canyon Uranium Processing Facility**

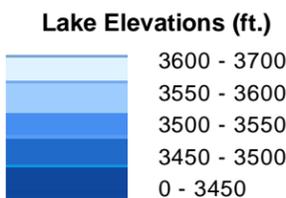
The Shootaring Canyon Uranium Processing Facility (mill) is located in Garfield County in Southeastern Utah. It is about 21 km (13 miles) north of Bullfrog Basin Marina and 77 km (48 miles) south of Hanksville. Plateau Resources Limited started commercial operations on June 1, 1982, but, due to the continued decline in the market for yellowcake, suspended operations at the facility on August 18, 1982. Plateau is requesting permission to resume operations of the Shootaring Canyon Uranium Mill facility. Unavoidable adverse environmental impacts associated with operating the mill includes the release of small quantities of radionuclides, diesel exhaust from operating the electrical generator, and vehicle exhaust from workers going to and from work. In addition, it is estimated that an average of 40 ore trucks per day will be received at the site creating additional traffic on Highways 24, 95, and 276.

Page 164: Cumulative Impacts to Air Quality under Alternative B - "Overall cumulative impacts to air quality, including the impacts from alternative B, would be short and long term, negligible to minor, and adverse. (The last sentence would be deleted)."

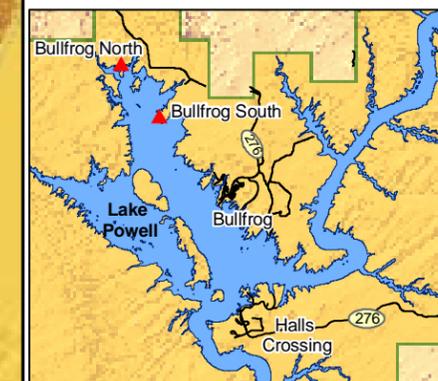
Page 230: Cumulative Impacts to Transportation under Alternative B – “Resuming operations at the Shootaring Canyon Uranium Processing Facility would have long term, minor, and adverse impacts to traffic. The overall cumulative projects, including alternative B, would result in short term minor adverse impacts and long term, minor, and adverse and beneficial impacts to transportation.



### Bullfrog Marina Final

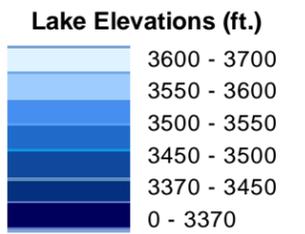


**Notes:**  
Marina facilities and buoy field are approximate in size and location. Actual size and location would vary based on water levels.  
New launch ramp and ferry ramp locations would be developed as necessary.

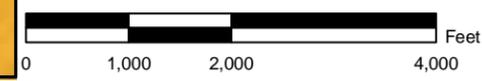
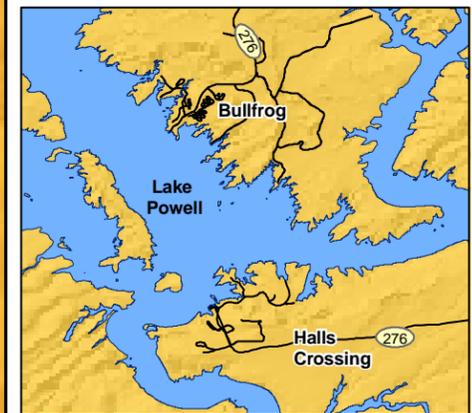




### Halls Crossing Final

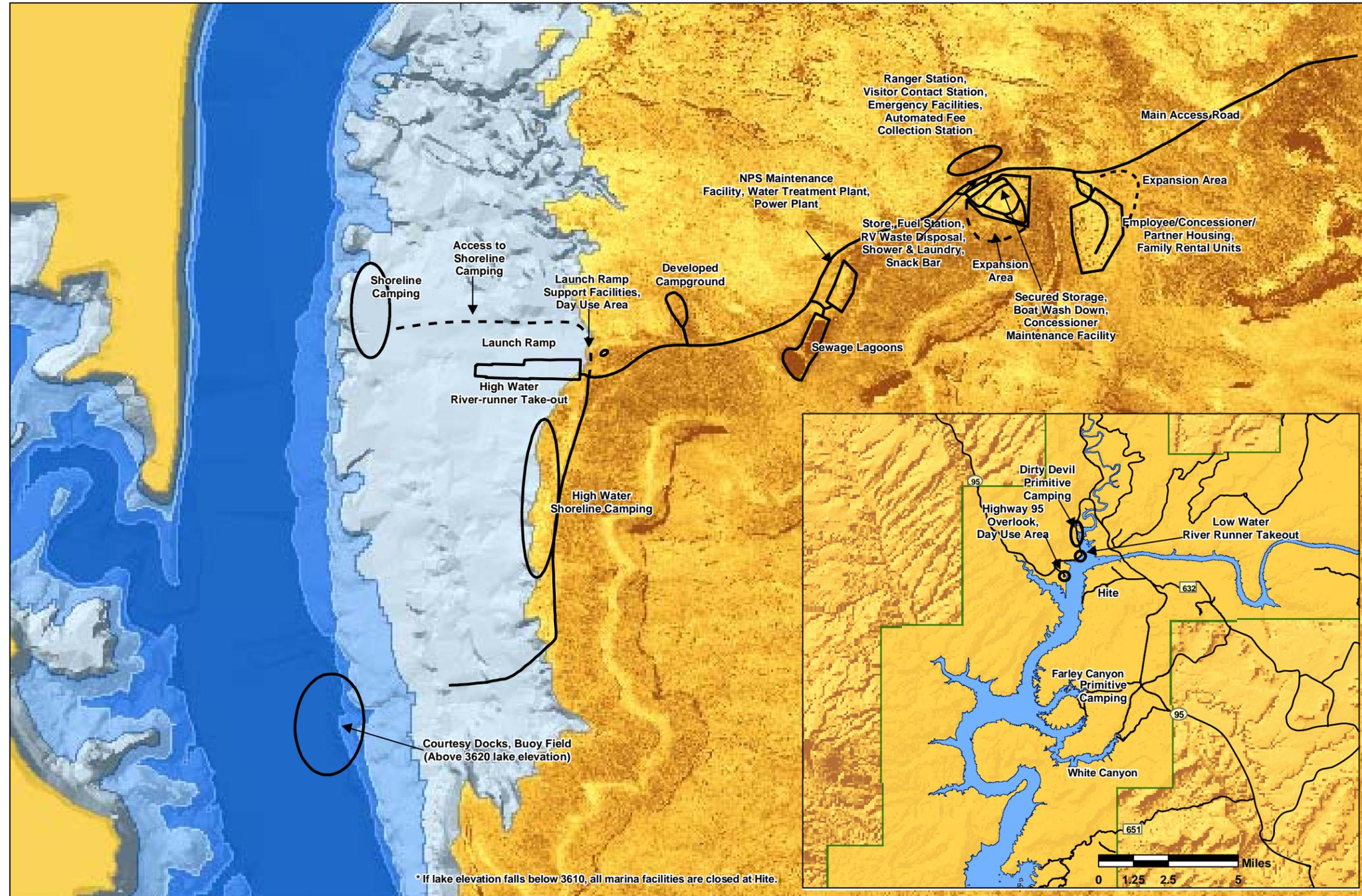
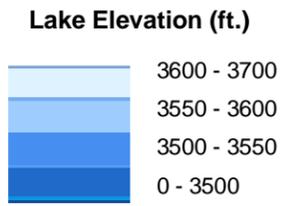


**Notes:**  
Marina facilities and buoy locations are approximate. Size and location of buoy field and marina facilities would vary based on water levels.  
If water levels drop below 3550, new launch ramp and ferry ramp locations would be developed as necessary.





### Hite Marina Final



**Notes:**  
Due to siltation and river channel meandering actual river topography would vary.  
Shoreline camping and river runner takeout sites would vary based on water levels and river channel meandering.

\* If lake elevation falls below 3610, all marina facilities are closed at Hite.

