

## APPENDIX B: GLEN CANYON NATIONAL RECREATION AREA MANAGEMENT AND OPERATIONS

Management of recreational uses, including off-road use, requires the participation of every Glen Canyon division. Glen Canyon staff provides the full scope of functions and activities to accomplish management objectives and meet the requirements of law enforcement, emergency services, public health and safety, scientific research, resource protection and management, visitor services, interpretation and education, community services, utilities, housing, and fee collection. Management of Glen Canyon requires the

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participation of seven Glen Canyon divisions: (1) Superintendent's Office, (2) Administration, (3) Business Management, (4) Facility Management, (5) Interpretation, Education, and Partnerships, (6) Science and Resource Management, and (7) Visitor and Resource Protection. Although not every division expends resources directly on the management of off-road use, every division at a minimum provides support to those divisions and individual employees who do have a direct role in the management of off-road use in Glen Canyon.

### STAFF AND FUNDING

Operating on an annual budget of approximately \$11.6 million in fiscal year 2011 (October 2010–October 2011), the staff of Glen Canyon provides the full scope of activities and functions needed to accomplish management objectives and fulfill the mission of Glen Canyon. Although staff numbers fluctuate from year to year and vary seasonally, generally there are 121 full-time employees on staff, with an additional 118 employees who work seasonally. Glen Canyon staff work in one of seven divisions, each with its own operational responsibilities. Table B1 shows staffing levels by Glen Canyon division.

**TABLE B1: STAFFING LEVELS AT GLEN CANYON NATIONAL RECREATION AREA (FISCAL YEAR 11)**

Staff Type	Business Management	Administration	Science and Resource Management	Interpretation, Education, and Partnerships	Visitor and Resource Protection	Facility Management	TOTAL
Full Time	5	10	8	6	45	47	121
Seasonal	0	2	31	14	38	33	118

### SUPERINTENDENT'S OFFICE

The Superintendent's Office is responsible for the full scope of managing Glen Canyon and its employees, and maintains relationships with people, agencies, and organizations interested in Glen Canyon. The Superintendent's Office also develops short- and long-term plans for resource protection and visitor management.

### ADMINISTRATION

The Administration division provides administrative services in the areas of budget, finance, information technology, property management, radio/telephone communications and geographical information systems (GIS). This division also serves as the liaison to National Park Service (NPS) human resource and contracting offices.

## **BUSINESS MANAGEMENT**

The Business Management division provides oversight and management of all concession contracts, commercial use authorizations and other business ventures within Glen Canyon. This division also issues and monitors special use permits, rights-of-way, and commercial film permits. This division would administer any off-road vehicle (ORV) permit system established in this plan/DEIS.

## **FACILITY MANAGEMENT**

In an average year, there are 52 full-time and 13 seasonal NPS facility management employees working in Glen Canyon. Along with their normal duties, facility management employees are responsible for a variety of functions and services related to off-road use in Glen Canyon. These activities include, but are not limited to: facility upkeep, sign construction and repair, sanitation services, road maintenance, construction and maintenance of fences and other structures designed to control access, and restoration of disturbed areas. Facility management employees are stationed throughout Glen Canyon at the developed areas, including the Wahweap district in Arizona and the Halls Crossing, Bullfrog, and Hite districts in Utah.

Several ORV accessible shoreline sites currently have limited facilities in place. Lone Rock Beach, Stanton Creek, and the currently closed Bullfrog North and South sites have restroom facilities, gates or fencing, and trash receptacles. Lone Rock Beach has an outdoor shower facility. Many of the ORV accessible shoreline sites have signs to provide information and inform visitors about Glen Canyon regulations. All these facilities are routinely inspected and maintained.

The majority of road maintenance for the unpaved general management plan (GMP) roads is performed by the counties on a limited and intermittent basis, and generally involves grading the roadbed. Glen Canyon does maintain the switchbacks on the Flint Trail in the Orange Cliffs Special Management Unit, and a number of high-use gravel roads (e.g., Sunset Overlook, Chains Area, Stanton Creek Access Road, Bullfrog North/South Access Road, and a number of administrative roads).

## **INTERPRETATION, EDUCATION, AND PARTNERSHIPS**

The Interpretation, Education, and Partnerships division is responsible for the development and dissemination of materials related to visitor activities and visitor use, Glen Canyon rules and regulations, and area resources. It also maintains partnerships with organizations to provide stewardship of Glen Canyon resources and facilitates visitor enjoyment of these resources. During the high visitation season, interpretation employs approximately 6 full-time and 14 seasonal individuals who work and interact with the public. The staff also disseminates information pertaining to Glen Canyon resources and visitor activities through nonpersonal media such as the Glen Canyon newspaper, park brochure, social media, and website ([www.nps.gov/glca](http://www.nps.gov/glca)).

## **SCIENCE AND RESOURCE MANAGEMENT**

The Science and Resource Management division is charged with the inventory and monitoring of all natural and cultural resources throughout the 1.25-million-acre recreation area to ensure that natural and cultural resources within Glen Canyon remain unaffected by impacts due to visitor use. The staff of approximately 8 full-time and 31 seasonal employees includes terrestrial and aquatic ecologists and biologists, ethnographic and cultural resource experts, and archeologists. The Science and Resource Management division would have the responsibility of restoring areas that have been damaged or otherwise impacted due to illegal off-road driving.

## VISITOR AND RESOURCE PROTECTION

The Visitor and Resource Protection division, and specifically the commissioned Glen Canyon rangers, are responsible for enforcing Glen Canyon rules and applicable federal and state regulations, conducting frontcountry and backcountry patrols, and monitoring resource conditions and visitor use areas. These responsibilities include Glen Canyon operations related to off-road use in Glen Canyon. On average, Glen Canyon employs 25 full-time and 12 seasonal commissioned Visitor and Resource Protection staff.

Visitor and Resource Protection staff members are stationed throughout Glen Canyon. Ranger stations with the primary responsibility of patrolling backcountry use areas and roads are located at the Wahweap developed area in Arizona, the Halls Crossing, Bullfrog, and Hite uplake developed areas in Utah, and the Escalante interagency visitor center in Escalante, Utah.

The distribution of Visitor and Resource Protection staff is based on the levels of visitor use and the frequency of problems. Table B2 illustrates the distribution of Visitor and Resource Protection staff in the summer. This staff distribution reflects a snapshot in time for Fiscal Year 2013; staff members often are reallocated throughout the year as needs arise.

**TABLE B2: DISTRIBUTION OF COMMISSIONED VISITOR AND RESOURCE PROTECTION STAFF IN GLEN CANYON NATIONAL RECREATION AREA**

District	Number of Staff		Estimated Road Miles (%)
	Permanent	Seasonal	
Wahweap	7	5	24%
Bullfrog	5	4	13%
Halls Crossing / Hite	3	1	53%
Escalante	2	0	6%
Lees Ferry	2	0	2%
Dangling Rope	2	2	<2%
Headquarters	4	0	<2%

Backcountry patrols can be difficult and time-consuming. Many areas are remote, with limited access and rough roads requiring high-clearance, 4-wheel-drive vehicles for passage. A remote area such as Wilson Mesa or Copper Canyon may be patrolled by vehicle only twice a year, although overflights by Glen Canyon aircraft occur more frequently.

Glen Canyon is a proprietary jurisdiction recreation area. State laws and federal regulations applicable to motor vehicle operation, registration, and licensing are enforced. NPS rangers as well as state and local law enforcement officials enforce motor vehicle requirements throughout Glen Canyon.

## MANAGEMENT AND OPERATION CONSIDERATIONS FOR ALTERNATIVE A

Under alternative A, no changes in staff numbers would be expected to occur for Glen Canyon operations divisions. Glen Canyon would continue to be overseen by the Superintendent's Office (which would be responsible for managing staff, all Glen Canyon programs, and relations with all persons, agencies, and organizations) and the following four divisions would be primarily involved in activities related to ORV management: Facility Management; Interpretation, Education, and Partnerships; Science and Resource Management; and Visitor and Resource Protection.

Use levels at the accessible shorelines would be expected to remain static as a result of the authorization of the current vehicle use at 15 existing accessible shorelines, including Lone Rock Beach and Lone Rock Beach Play Area. Two unauthorized areas (Nokai Canyon and Paiute Farms) would be closed and restored to natural conditions. Conventional motor vehicles, off-highway vehicles (OHVs) and street-legal all-terrain vehicles (ATVs) would be authorized to operate on approximately 53 miles of designated ORV routes in Ferry Swale. Street-legal ATVs would join conventional motor vehicles in using all GMP roads.

The Facility Management division would continue to be responsible for sign construction and repair, sanitation services, site maintenance, and the construction and maintenance of fences and other structures designed to control access at accessible shoreline ORV areas. The division would be responsible for the installation and maintenance of road barriers and exclusionary fences at Nokai Canyon and Paiute Farms which would be restored to natural conditions. This division would have limited responsibilities related to sign construction and maintenance along GMP roads and ORV routes.

The Interpretation, Education, and Partnerships division would continue to have limited responsibilities for disseminating information regarding off-road use rules and regulations to visitors.

The Science and Resource Management division would continue the limited efforts at monitoring resource conditions and measuring the impacts of off-road use at and near ORV areas and routes. The cultural resource staff would conduct the mandated inventories for cultural resources at Red Canyon and Hite Boat Ramp ORV areas and on approximately 41 miles of unsurveyed ORV routes in Ferry Swale. The natural resource staff would monitor the restored areas at Nokai Canyon and Paiute Farms for listed noxious weeds and new invasive plant species, and implement an early detection and rapid response system to minimize the establishment and spread of new invasive species.

The Visitor and Resource Protection division would continue to conduct daily patrols and maintain an enforcement presence at Lone Rock Beach and the Lone Rock Beach Play Area and along GMP roads and Ferry Swale ORV routes. Routinely accessing the remote ORV areas along the southern shore of Lake Powell would remain beyond the scope of limited staffing resources. If the Bullfrog North and South and the Crosby Canyon ORV areas are open for use due to higher water levels at Lake Powell, past experience with visitor use at these popular sites would dictate a greatly expanded ranger presence for education, enforcement and visitor use management.

**TABLE B3: STAFF ACTIVITIES FOR ALTERNATIVE A: NO ACTION**

Park Management and Administration	Park Management and Administration staff would continue to have limited involvement in ORV management activities and related agency liaison, policy interpretation and public relations. Limited administrative support would be available for overhead activities such as payroll administration, human resource functions and contracting/purchasing.
Facility Management	Facility Management staff would continue a limited involvement in sign construction and repair, sanitation services, site maintenance, and the construction and maintenance of fences and other structures.
Interpretation, Education, and Partnerships	Limited information would be disseminated through, newspaper articles, website and social media messaging.
Cultural Resource Management	Cultural resource staff would conduct limited monitoring of archeological sites. Archeological inventories would be undertaken at ORV areas and routes that have not previously been surveyed.
Natural Resource Management	Natural resource staff would conduct limited monitoring of ORV areas and routes for the presence of listed noxious weeds, special-status species and the conditions of geologic, soil, soundscape, wilderness, and paleontological resources.
Visitor and Resource Protection	Rangers would conduct patrols and maintain a limited enforcement presence along GMP roads and at ORV areas and routes.

## MANAGEMENT AND OPERATION CONSIDERATIONS FOR ALTERNATIVE B

Under alternative B, limited changes in staff numbers would be expected to occur for Glen Canyon operations divisions and substantial implementation costs would be incurred to close and monitor existing areas of off-road use. It is likely that additional funding would be sought.

Glen Canyon would continue to be overseen by the Superintendent's Office (which would be responsible for managing staff, all Glen Canyon programs, and relations with all persons, agencies, and organizations) and the following four divisions would be primarily involved in activities related to ORV management: Facility Management; Interpretation, Education, and Partnerships; Science and Resource Management; and Visitor and Resource Protection.

The Facility Management division would continue to be responsible for sign construction and maintenance along GMP roads. The division would be responsible for the installation and maintenance of road barriers and exclusionary fences at former off-road use areas along the Lake Powell Shoreline and in Ferry Swale that are being restored to natural conditions.

The Interpretation, Education, and Partnerships division would continue to be responsible for disseminating information regarding off-road use rules and regulations to visitors.

The Science and Resource Management division would continue to be responsible for monitoring resource conditions at or near former off-road areas and routes. Cultural resource staff would conduct periodic monitoring of National Register eligible archeological sites. The natural resource staff would monitor areas and routes slated for restoration for listed noxious weeds and new invasive plant species, and implement an early detection and rapid response system to minimize the establishment and spread of new invasive species. Natural and cultural resource staff would conduct the required clearances for sites designated for the installation of signs and barriers.

The Visitor and Resource Protection division would continue to conduct daily patrols and maintain an enforcement presence along GMP roads and at or near former off-road use areas and routes.

**TABLE B4: STAFF ACTIVITIES FOR ALTERNATIVE B: NO OFF-ROAD USE**

Park Management and Administration	Park Management and Administration staff would be involved in ORV management activities and related agency liaison, policy interpretation and public relations. Administrative support would be available for overhead activities such as payroll administration, human resource functions and contracting/purchasing.
Facility Management	Facility Management staff would be involved in sign construction and maintenance and the installation and maintenance of road barriers and exclusionary fences at former off-road use areas.
Interpretation, Education, and Partnerships	Information would be disseminated through newspaper articles, website and social media messaging.
Cultural Resource Management	Cultural Resource Management staff would conduct periodic monitoring of archeological sites. Staff would conduct the required clearances for sites designated for the installation of signs, barriers or information infrastructure.
Natural Resource Management	Natural Resource Management staff would monitor former off-road use areas and routes for listed noxious weeds and new invasive plant species and minimize the establishment and spread of new invasive species. Staff would conduct the required clearances for sites designated for the installation of signs, barriers or information infrastructure.
Visitor and Resource Protection	Rangers would conduct patrols and maintain an enforcement presence along GMP roads and at or near former off-road use areas and routes.

## MANAGEMENT AND OPERATION CONSIDERATIONS FOR ALTERNATIVE C

Under alternative C, substantial changes in staff numbers would be expected to occur for Glen Canyon operations divisions, and it is likely that additional funding would be sought. A special use permit system would be established to partially recover costs incurred by the education, enforcement, monitoring, site improvement and other actions called for in the plan/DEIS.

Glen Canyon would continue to be overseen by the Superintendent's Office (which would be responsible for managing staff, all Glen Canyon programs, and relations with all persons, agencies, and organizations) and the following five divisions would be primarily involved in activities related to ORV management: Business Management; Facility Management; Interpretation, Education, and Partnerships; Science and Resource Management; and Visitor and Resource Protection.

At current staffing levels, Glen Canyon would require additional funding and staff to address all ORV management activities called for in the plan/DEIS. Use levels at the accessible shorelines would be expected to increase as a result of the authorization of 17 accessible shorelines to conventional motor vehicles, OHVs, and street-legal ATVs. Because conventional motor vehicles, OHVs, and street-legal ATVs would be authorized to operate on approximately 15 miles of designated ORV routes in Ferry Swale and on approximately 437 miles of GMP roads (including roads in the Orange Cliffs Special Management Unit), responsibilities for all operational divisions would increase. Additional costs would be incurred to close and restore approximately 38 miles of ORV routes in Ferry Swale to natural conditions.

The Business Management division would be responsible for issuing permits to all authorized vehicles for the ORV areas at Lone Rock Beach, Lone Rock Beach Play Area, and the accessible shorelines, and for the ORV routes at Ferry Swale which would create an additional workload for this division.

The Facility Management division would continue to be responsible for sign construction and repair, sanitation services, site maintenance, and the construction and maintenance of fences and other structures designed to control access at accessible shoreline ORV areas. This division would have increased responsibilities related to sign construction and maintenance along GMP roads and ORV routes. The division would be responsible for the installation and maintenance of road barriers and exclusionary fences at former off-road routes in Ferry Swale that are being restored to natural conditions.

The Interpretation, Education, and Partnerships division would continue to be responsible for disseminating information regarding off-road use rules and regulations to visitors. Informational and educational material would be developed for on-site kiosks at ORV areas and along GMP roads and ORV routes. Information site bulletins, newspaper and magazine articles, website development, and social media messaging would all be components of an increased public awareness campaign. Partnerships would be established and nurtured with neighboring agencies, local jurisdictions, chambers of commerce, national organizations, and user groups to accomplish the plan/DEIS objectives. This division would have increased responsibilities for monitoring the quality of the visitor experience in and near ORV areas and routes.

The Science and Resource Management division would continue to be responsible for monitoring resource conditions and measuring the impacts of off-road use at and near ORV areas and routes. Cultural resource staff would conduct semi-annual monitoring of National Register-eligible archeological sites. Archeological inventories would be undertaken at ORV areas and routes that have not previously been surveyed. The natural resource staff would monitor designated ORV areas and routes as well as routes slated for restoration for listed noxious weeds and new invasive plant species, and implement an early detection and rapid response system to minimize the establishment and spread of new invasive species. Aerial and ground surveys would be conducted in order to monitor visitor use and the effectiveness of mitigation measures instituted to protect geologic, soil, soundscape, wilderness, and paleontological resources. Special-status species (e.g., desert bighorn sheep, California condor,

Mexican spotted owl) would be monitored in and near off-road use areas. Natural and cultural resource staff would conduct the required clearances for sites designated for the installation of signs, barriers or information infrastructure.

The Visitor and Resource Protection division would continue to conduct daily patrols and maintain an enforcement presence at Lone Rock Beach and the Lone Rock Beach Play Area. Accessing the remote accessible shoreline areas along the southern shore of Lake Powell would require additional staffing resources. If the Bullfrog North and South and the Crosby Canyon ORV areas are open for use due to higher water levels at Lake Powell, past experience with visitor use at this popular site would dictate a greatly expanded ranger presence for education, enforcement and visitor use management. This division would have increased responsibilities for monitoring visitor health and safety in and near ORV areas and routes.

**TABLE B5: STAFF ACTIVITIES FOR ALTERNATIVE C: INCREASED MOTORIZED ACCESS**

Park Management and Administration	Park Management and Administration staff would be routinely involved in ORV management activities, agency liaison, policy interpretation and public relations. Administrative support would be required for overhead activities such as payroll administration, human resource functions and contracting/purchasing.
Business Management	A special use permit system would be implemented and administered by the Business Management division for the issuance of ORV permits.
Facility Management	Facility Management staff would be involved in sign construction and repair, sanitation services, site maintenance, and the construction and maintenance of fences and other structures.
Interpretation, Education, and Partnerships	Informational and educational material would be developed for on-site kiosks at ORV areas and along GMP roads and ORV routes. Staff would develop information site bulletins, newspaper and magazine articles, website development and social media messaging. Partnerships would be established and nurtured.
Cultural Resource Management	Cultural Resource Management staff would conduct semi-annual monitoring of archeological sites. Archeological inventories would be undertaken at ORV areas and routes that have not previously been surveyed. Staff would conduct the required clearances for sites designated for the installation of signs, barriers, or information infrastructure.
Natural Resource Management	Natural Resource Management staff would monitor ORV areas and routes for listed noxious weeds and new invasive plant species and minimize the establishment and spread of new invasive species. Aerial and ground surveys would be conducted in order to monitor visitor use and the effectiveness of mitigation measures instituted to protect geologic, soil, soundscape, wilderness, and paleontological resources. Special-status plant and animal species would be monitored. Staff would conduct the required clearances for sites designated for the installation of signs, barriers or information infrastructure.
Visitor and Resource Protection	Rangers would conduct patrols and maintain an enforcement presence at ORV areas and routes. Some sites would require a greatly expanded ranger presence for education, enforcement, visitor use management and monitoring visitor health and safety.

## MANAGEMENT AND OPERATION CONSIDERATIONS FOR ALTERNATIVE D

Under alternative D, limited changes in staff numbers would be expected to occur for Glen Canyon operations divisions, and it is likely that additional funding would be sought. A special use permit system would be established to partially recover costs incurred by the education, enforcement, monitoring, site improvement and other actions called for in the plan/DEIS.

Glen Canyon would continue to be overseen by the Superintendent's Office (which would be responsible for managing staff, all Glen Canyon programs, and relations with all persons, agencies, and organizations) and the following five divisions would be primarily involved in activities related to ORV management: Business Management; Facility Management; Interpretation, Education, and Partnerships; Science and Resource Management; and Visitor and Resource Protection.

At current staffing levels, Glen Canyon would require additional funding and staff to address all ORV management activities called for in the plan/DEIS. Use levels at the accessible shorelines would be expected to decrease moderately as a result of only authorizing five accessible shorelines to conventional motor vehicles. Additional costs would be incurred to close and restore to natural conditions existing user-created ORV routes in Ferry Swale.

The Business Management division would be responsible for issuing permits to all authorized vehicles for the ORV areas at Lone Rock Beach and the accessible shorelines which would create an additional workload for this division.

The Facility Management division would continue to be responsible for sign construction and repair, sanitation services, site maintenance, and the construction and maintenance of fences and other structures designed to control access at accessible shoreline ORV areas. The division would be responsible for the installation and maintenance of road barriers and exclusionary fences at former ORV routes in Ferry Swale that are being restored to natural conditions.

The Interpretation, Education, and Partnerships division would continue to be responsible for disseminating information regarding off-road use rules and regulations to visitors. Informational and educational material would be developed for on-site kiosks at ORV areas and along GMP roads and ORV routes. Information site bulletins, newspaper and magazine articles, website development and social media messaging would all be components of an increased public awareness campaign. Partnerships would be established and nurtured with neighboring agencies, local jurisdictions, chambers of commerce, national organizations and user groups to accomplish the plan/DEIS objectives. This division would have increased responsibilities for monitoring the quality of the visitor experience in and near ORV areas and routes.

The Science and Resource Management division would continue to be responsible for monitoring resource conditions and measuring the impacts of off-road use at and near ORV areas. Cultural resource staff would conduct semi-annual monitoring of National Register eligible archeological sites. Archeological inventories would be undertaken at ORV areas that have not previously been surveyed. The natural resource staff would monitor designated ORV areas as well as areas and routes slated for restoration for listed noxious weeds and new invasive plant species, and implement an early detection and rapid response system to minimize the establishment and spread of new invasive species. Aerial and ground surveys would be conducted in order to monitor visitor use and the effectiveness of mitigation measures instituted to protect geologic, soil, soundscape, wilderness, and paleontological resources. Special-status species (e.g., desert bighorn sheep, California condor, Mexican spotted owl) would be monitored in and near off-road use areas. Natural and cultural resource staff would conduct the required clearances for sites designated for the installation of signs, barriers, or information infrastructure.

The Visitor and Resource Protection division would continue to conduct daily patrols and maintain an enforcement presence at Lone Rock Beach. The division would continue to conduct daily patrols and maintain an enforcement presence along GMP roads and at or near former off-road use areas and routes.



**TABLE B6: STAFF ACTIVITIES FOR ALTERNATIVE D: DECREASED MOTORIZED ACCESS**

Park Management and Administration	Park Management and Administration staff would be routinely involved in ORV management activities, agency liaison, policy interpretation and public relations. Administrative support would be required for overhead activities such as payroll administration, human resource functions and contracting/purchasing.
Business Management	A special use permit system would be implemented and administered by the Business Management division for the issuance of ORV permits.
Facility Management	Facility Management staff would be involved in sign construction and repair, sanitation services, site maintenance, and the construction and maintenance of fences and other structures.
Interpretation, Education, and Partnerships	Informational and educational material would be developed for on-site kiosks at ORV areas and along GMP roads. Staff would develop information site bulletins, newspaper and magazine articles, website development and social media messaging. Partnerships would be established and nurtured.
Cultural Resource Management	Cultural Resource Management staff would conduct semi-annual monitoring of archeological sites. Archeological inventories would be undertaken at ORV areas that have not previously been surveyed. Staff would conduct the required clearances for sites designated for the installation of signs, barriers or information infrastructure.
Natural Resource Management	Natural Resource Management staff would monitor ORV areas and former off-road use areas and routes for listed noxious weeds and new invasive plant species and minimize the establishment and spread of new invasive species. Aerial and ground surveys would be conducted in order to monitor visitor use and the effectiveness of mitigation measures instituted to protect geologic, soil, soundscape, wilderness, and paleontological resources. Special-status plant and animal species would be monitored. Staff would conduct the required clearances for sites designated for the installation of signs, barriers or information infrastructure.
Visitor and Resource Protection	Rangers would conduct patrols and maintain an enforcement presence along GMP roads and at designated ORV areas, and at or near former off-road use areas and routes.

## MANAGEMENT AND OPERATION CONSIDERATIONS FOR ALTERNATIVE E

Under alternative E, substantial changes in staff numbers would be expected to occur for Glen Canyon operations divisions, and it is likely that additional funding would be sought. A special use permit system would be established to partially recover costs incurred by the education, enforcement, monitoring, site improvement and other actions called for in the plan/DEIS.

Glen Canyon would continue to be overseen by the Superintendent's Office (which would be responsible for managing staff, all Glen Canyon programs, and relations with all persons, agencies, and organizations) and the following five divisions would be primarily involved in activities related to ORV management: Business Management; Facility Management; Interpretation, Education, and Partnerships; Science and Resource Management; and Visitor and Resource Protection.

At current staffing levels, Glen Canyon would require additional funding and staff to address all ORV management activities called for in the plan/DEIS. Use levels at the accessible shorelines would be expected to increase as a result of the authorization of 16 accessible shorelines to conventional motor vehicles and street-legal ATVs (with OHV use continuing at Lone Rock Beach and Lone Rock Beach Play Area). Because conventional motor vehicles, OHVs, and street-legal ATVs would be authorized to operate on 15 miles of designated ORV routes in Ferry Swale

and on 380 miles of unpaved GMP roads, responsibilities for all operational divisions would increase. Additional costs would be incurred to close and restore 38 miles of ORV routes in Ferry Swale.

The Business Management division would be responsible for issuing permits to all authorized vehicles for the ORV areas at Lone Rock Beach, Lone Rock Beach Play Area, and the accessible shorelines, and for the ORV routes at Ferry Swale which would create an additional workload for this division.

The Facility Management division would continue to be responsible for sign construction and repair, sanitation services, site maintenance, and the construction and maintenance of fences and other structures designed to control access at accessible shoreline ORV areas. This division would have increased responsibilities related to sign construction and maintenance along GMP roads and ORV routes. The division would be responsible for the installation and maintenance of road barriers and exclusionary fences at former off-road routes in Ferry Swale that are being restored to natural conditions.

The Interpretation, Education, and Partnerships division would continue to be responsible for disseminating information regarding off-road use rules and regulations to visitors. Informational and educational material would be developed for on-site kiosks at ORV areas and along GMP roads and ORV routes. Information site bulletins, newspaper and magazine articles, website development and social media messaging would all be components of an increased public awareness campaign. Partnerships would be established and nurtured with neighboring agencies, local jurisdictions, chambers of commerce, national organizations and user groups to accomplish the plan/DEIS objectives. This division would have increased responsibilities for monitoring the quality of the visitor experience in and near ORV areas and routes.

The Science and Resource Management division would continue to be responsible for monitoring resource conditions and measuring the impacts of off-road use at and near ORV areas and routes. Cultural resource staff would conduct semi-annual monitoring of National Register eligible archeological sites. Archeological inventories would be undertaken at ORV areas and routes that have not previously been surveyed. The natural resource staff would monitor designated ORV areas and routes as well as areas slated for restoration for listed noxious weeds and new invasive plant species, and implement an early detection and rapid response system to minimize the establishment and spread of new invasive species. Aerial and ground surveys would be conducted in order to monitor visitor use and the effectiveness of mitigation measures instituted to protect geologic, soil, soundscape, wilderness, and paleontological resources. Special-status species (e.g., desert bighorn sheep, California condor, Mexican spotted owl) would be monitored in and near off-road use areas. Natural and cultural resource staff would conduct the required clearances for sites designated for the installation of signs, barriers or information infrastructure.

The Visitor and Resource Protection division would continue to conduct daily patrols and maintain an enforcement presence at Lone Rock Beach and the Lone Rock Beach Play Area. Accessing the remote accessible shoreline areas along the southern shore of Lake Powell would require additional staffing resources. If the Bullfrog North and South and the Crosby Canyon ORV areas are open for use due to higher water levels at Lake Powell, past experience with visitor use at these popular sites would dictate a greatly expanded ranger presence for education, enforcement and visitor use management. This division would have increased responsibilities for monitoring visitor health and safety in and near ORV areas and routes.

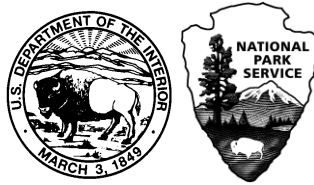
**TABLE B7: STAFF ACTIVITIES FOR ALTERNATIVE E: MIXED USE (NPS PREFERRED ALTERNATIVE)**

Park Management and Administration	Park Management and Administration staff would be routinely involved in ORV management activities, agency liaison, policy interpretation and public relations. Administrative support would be required for overhead activities such as payroll administration, human resource functions and contracting/purchasing.
Business Management	A special use permit system would be implemented and administered by the Business Management Division for the issuance of ORV permits.
Facility Management	Facility Management staff would be involved in sign construction and repair, sanitation services, site maintenance, and the construction and maintenance of fences and other structures
Interpretation, Education, and Partnerships	Informational and educational material would be developed for on-site kiosks at ORV areas and along GMP roads and ORV routes. Staff would develop information site bulletins, newspaper and magazine articles, website development and social media messaging. Partnerships would be established and nurtured.
Cultural Resource Management	Cultural Resource Management staff would conduct semi-annual monitoring of archeological sites. Archeological inventories would be undertaken at ORV areas and routes that have not previously been surveyed. Staff would conduct the required clearances for sites designated for the installation of signs, barriers or information infrastructure.
Natural Resource Management	Natural Resource Management staff would monitor designated and former ORV areas and routes for listed noxious weeds and new invasive plant species and minimize the establishment and spread of new invasive species. Aerial and ground surveys would be conducted in order to monitor visitor use and the effectiveness of mitigation measures instituted to protect geologic, soil, soundscape, wilderness, and paleontological resources. Special-status plant and animal species would be monitored. Staff would conduct the required clearances for sites designated for the installation of signs, barriers or information infrastructure.
Visitor and Resource Protection	Rangers would conduct patrols and maintain an enforcement presence at ORV areas and routes. Some sites would require a greatly expanded ranger presence for education, enforcement, visitor use management and monitoring visitor health and safety.

**TABLE B8: MANAGEMENT AND OPERATIONS COSTS BY ALTERNATIVE**

	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
<b>Management and Administration</b>					
One-time costs					
Recurring costs	1,220	14,060	79,420	43,620	79,390
<b>Business Management</b>					
One-time costs			45,000	45,000	45,000
Recurring costs			73,000	73,000	73,000
<b>Facility Management</b>					
One-time costs	9,640	389,020	546,870	486,980	529,700
Recurring costs	620	18,530	60,400	39,420	59,460
<b>Interpretation, Education and Partnerships</b>					
One-time costs		6,000	59,500	17,500	56,000
Recurring costs		16,000	134,000	134,400	134,000
<b>Cultural Resource Management</b>					
One-time costs	66,540		32,720	15,020	37,720
Recurring costs		7,940	37,030	7,940	37,030
Sect 106 compliance for ground disturbance	10,020	111,810	81,030	106,940	82,080
<b>Natural Resource Management</b>					
One-time costs					
Recurring costs	11,550	98,150	61,250	82,770	61,820
<b>Visitor and Resource Protection</b>					
One-time costs			95,000	90,000	95,000
Recurring costs			428,550	99,070	428,550
<b>Total Start-up Costs (First Two Years)</b>	<b>102,960</b>	<b>704,380</b>	<b>2,526,390</b>	<b>1,614,140</b>	<b>2,504,920</b>
<b>Total Recurring Annual Costs</b>	<b>13,390</b>	<b>154,680</b>	<b>873,650</b>	<b>479,820</b>	<b>873,250</b>





As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historic places, and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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United States Department of the Interior · National Park Service