

Lake Mead

National Recreation Area
National Park Service
U.S. Department of the Interior



Master Plan for Lake Mead NRA Headquarters Site and Warehouse Site

ENVIRONMENTAL ASSESSMENT



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SECTION I: PURPOSE OF AND NEED FOR ACTION

INTRODUCTION

Lake Mead National Recreation Area (NRA), a unit of the National Park Service (NPS), is considering a Master Plan for the park's Headquarters and Warehouse sites located in Boulder City, Nevada, to resolve immediate and ongoing facility needs and establish guidelines for future development of the sites. The NPS has prepared an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (40 Code of Federal Regulations [CFR] 1508.9), and NPS Director's Orders 12- *Conservation Planning, Environmental Impact and Decision Making*.

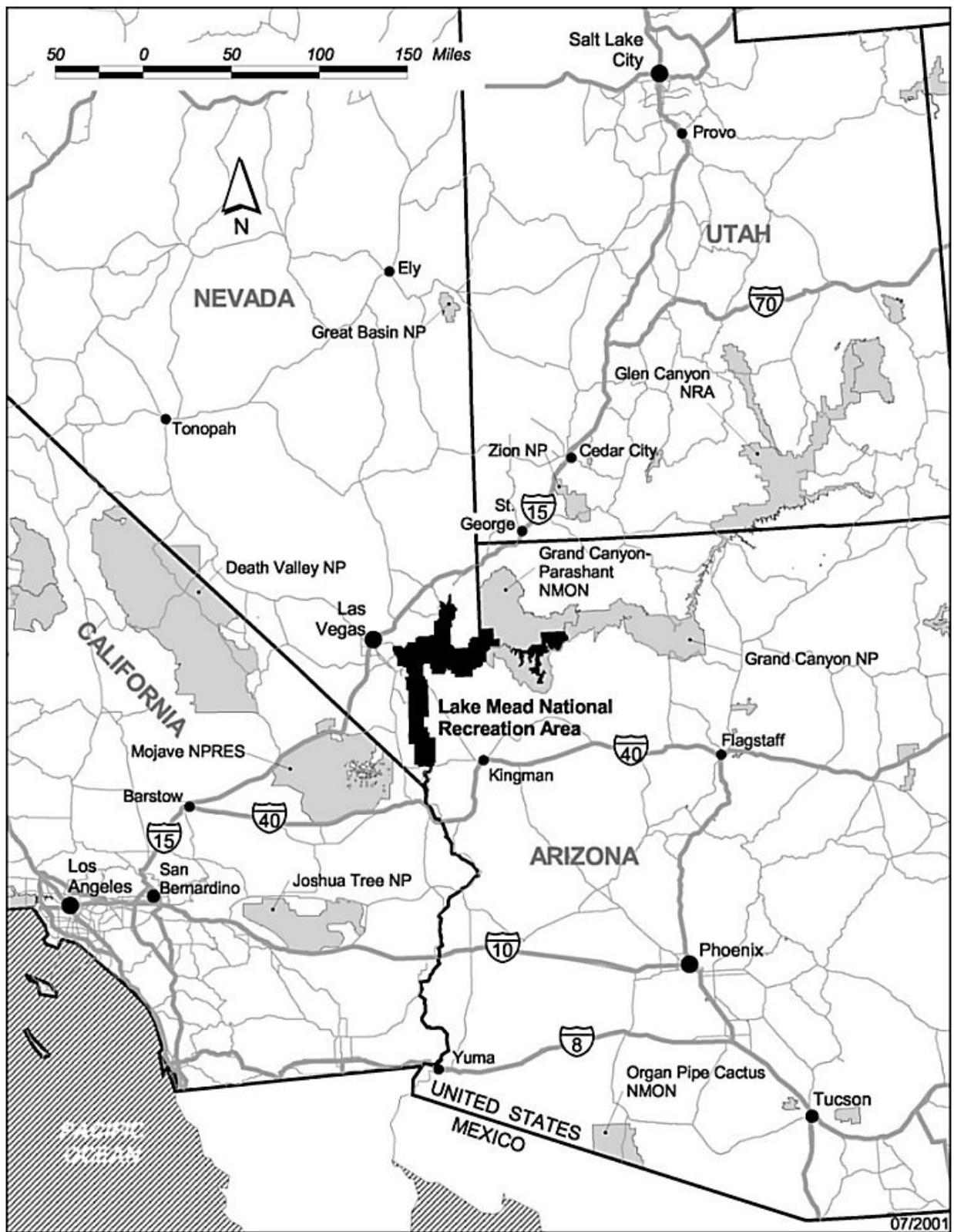
ENVIRONMENTAL ASSESSMENT

This EA presents the purpose and need for the plan, outlines plan alternatives, describes existing conditions in the plan area, identifies mitigation measures, and analyzes the effects of each alternative on the environment and the potential for resource impairment. This EA analyzes the context, duration, and intensity of the impacts related to the no-action alternative and three action alternatives. The alternatives analyzed are: Alternative A: No Action; Alternative B: Consolidation of all NPS Divisions at the Warehouse Site; Alternative C: Consolidation at the Warehouse Site with a Downtown NPS Contact Station (the management-preferred alternative); and Alternative D: Retention of Downtown Location and Construction of New Buildings at the Warehouse Site. Also included is a discussion of alternatives that have been ruled out and justifications for their elimination.

Although the plan area is not located within the park boundary, it is a federal action occurring on federally-owned land, requiring the use of federal funds; therefore, an EA has been prepared. For the purposes of this EA, each action alternative provides an overall master plan and vision for attaining the reorganization of park operations. Implementation of all desired components is not possible at this time due to funding limitations. Consequently, components in the master plan would occur in phases and would be dependent on acquiring additional funding. Currently, funding is available only for the construction of an interagency communications center (ICC), a component of all alternatives. The EA evaluates the environmental impacts associated with the full development of all components identified in each alternative.

PROJECT LOCATION

Located in the arid Mojave Desert between the Great Basin and Sonoran deserts, Lake Mead NRA is one of America's largest and most visited national recreation areas. Lake Mead NRA is 1.5 million acres and is situated along the winding Colorado River on the Nevada/Arizona state border (Figure 1). The park surrounds both lakes Mead and Mohave and includes developed areas as well as extreme remote backcountry areas,



**Figure 1. Regional Map
Lake Mead National Recreation Area**

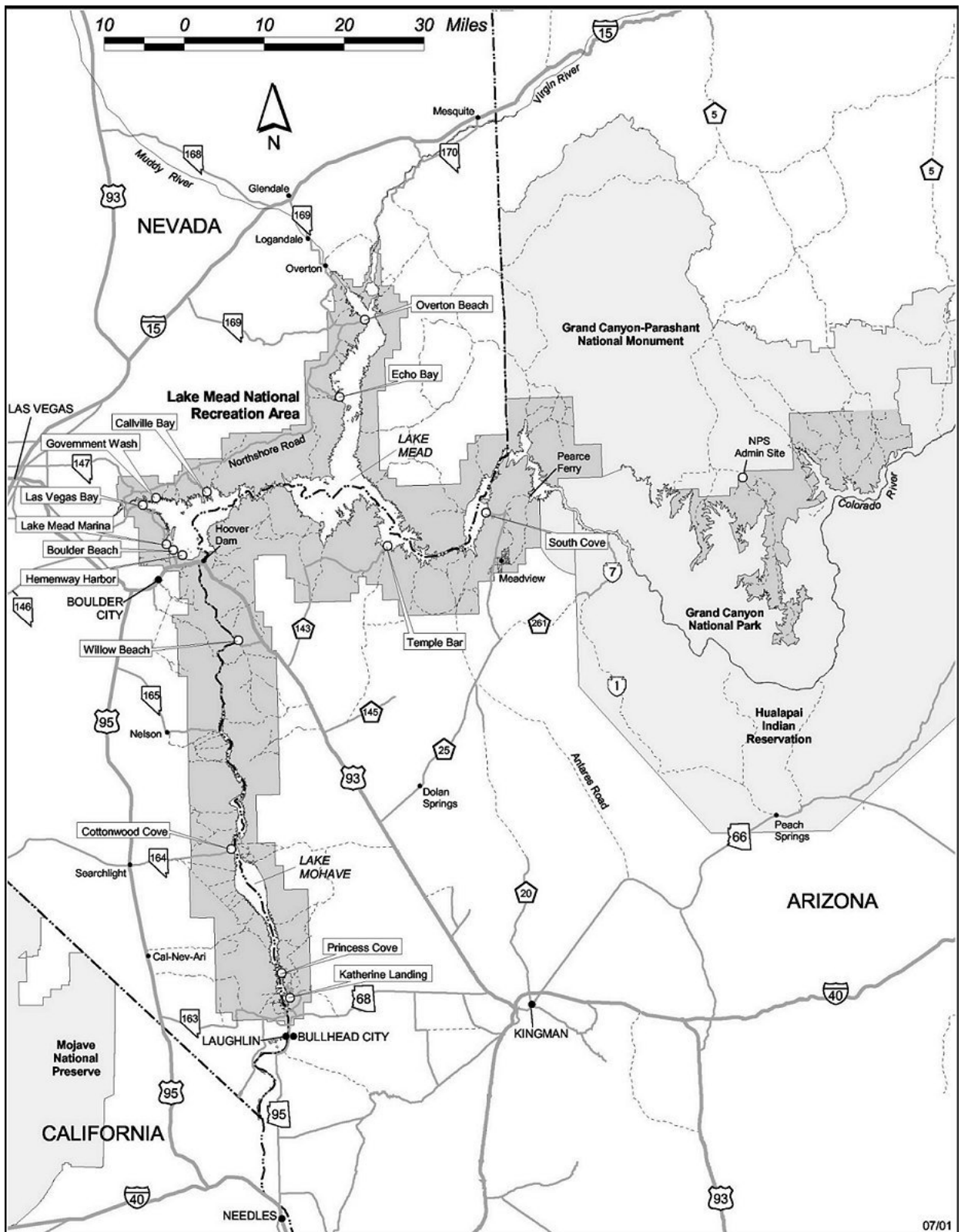
supporting a diverse spectrum of recreational and leisure activities (Figure 2). The actual center of operations for Lake Mead NRA is located just outside the park's boundary, in historic Boulder City, Nevada--approximately 8 miles west of the Hoover Dam, and 30 miles southeast of Las Vegas. The NPS Headquarters site and Warehouse site are at separate locations within Boulder City (Figure 3).

PURPOSE AND NEED

The intent of this plan is to provide comprehensive guidance for long-term, sustainable development of the NPS Headquarters and Warehouse sites, which includes replacing inadequate and substandard facilities, resolving space and organizational inefficiencies, and allowing for more cohesive park operations. Over the last several decades, the pattern of expansion and contraction has been sporadic and resolved with short-term measures, including trailers, modular structures, and prefabricated metal storage units. Currently, staff stationed in Boulder City is spread among numerous facilities at different locations. Some of these facilities are historic structures, while other facilities are portable modular units that were not intended for long-term use. These temporary solutions require excessive maintenance and are inefficient to operate. The risk for neglect and loss of historical resources is high. Unplanned development at the Warehouse site has resulted in inefficient use of exterior storage and staging space. Additionally, vehicular and pedestrian circulation at the Warehouse site compromises staff safety. With the NPS operating out of multiple locations, access for the public, as well as for partnering groups, is confusing.

Specific project objectives include the following elements:

- Create a Master Plan and clear vision to guide the future development of the sites as inadequate and substandard facilities are replaced, while providing for greater operational efficiency.
- Provide facilities that display NPS standards of quality and sustainable design, and reflect the agency's importance and commitment to the future.
- Provide space that would accommodate the evolving nature of NPS business, including the establishment of adequate meeting and storage space and the consolidation of currently scattered staff.
- Construct an interagency communications center which would support numerous federal and state law enforcement units, and serve as a Public Safety Answering Point (911) providing public access to emergency assistance for incidents and events occurring in the vicinity.
- Determine the most appropriate life-cycle solution that is durable and low in maintenance, and is the best solution to reduce operational and maintenance costs.
- Use an environmentally sustainable model to guide the design and layout of permanent structures that would replace existing modular buildings.
- Maintain the NPS presence in the community, accessibility to the public, opportunities for visitor contact, and environmental stewardship.
- Improve the NPS work environment and staff communication.
- Protect the historic nature of the Headquarters building and Warehouse building.
- Resolve parking concerns, site circulation, and security issues.



**Figure 2. Area Map
Lake Mead National Recreation Area**

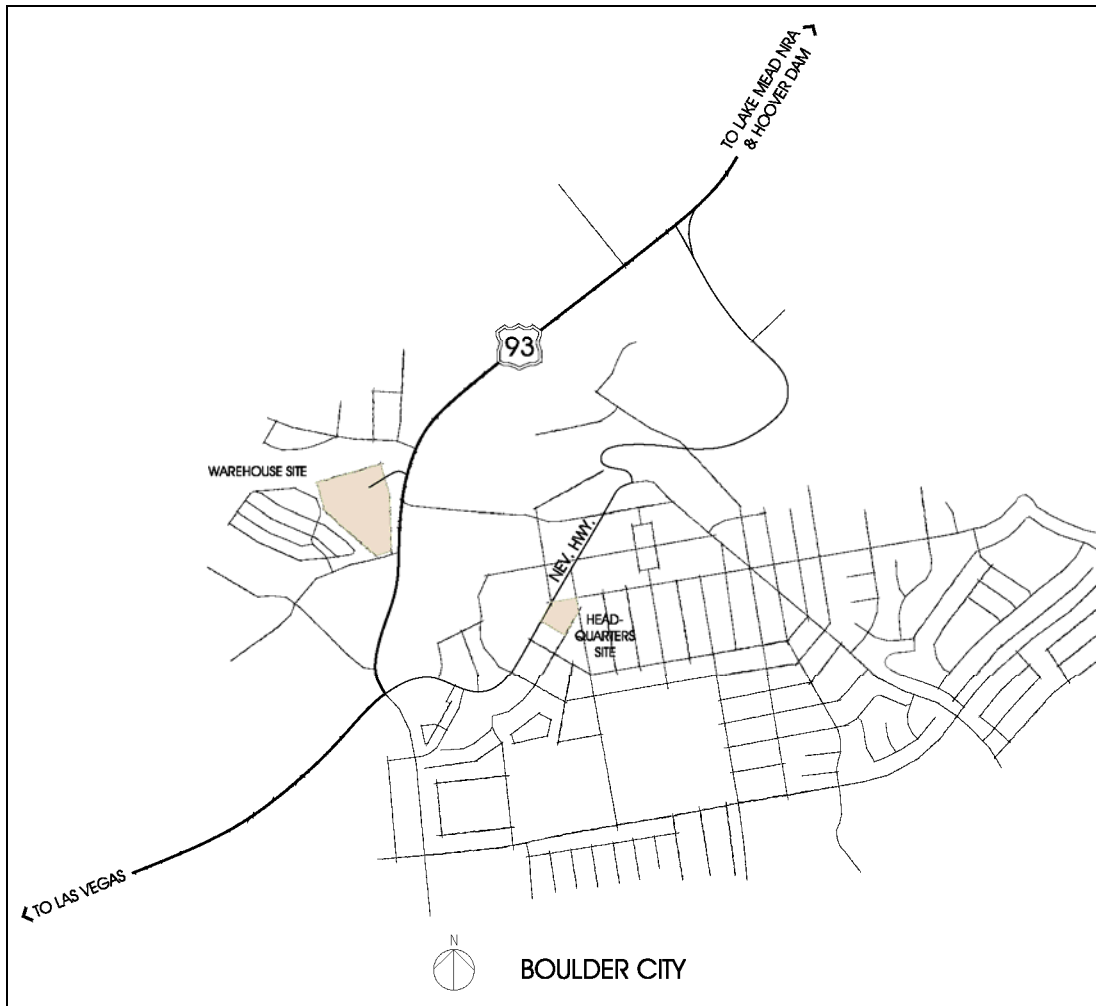


Figure 3. Project Area Location (*map courtesy of ajc architects, 2007*).

BACKGROUND AND PREVIOUS PLANNING

After many years of addressing the issue of growth through the addition of modular buildings and trailers, the NPS contracted an architectural firm in May of 2006 to develop a Space Utilization Study and Value Analysis Study for the Headquarters and Warehouse sites. Initial analysis confirmed that much of the existing space is over-burdened and inefficiently used. Offices lack adequate file and equipment storage. Spaces for meetings are insufficiently sized and inconveniently located for much of the staff operating at the Warehouse site. In order to interact with other departments and divisions, staff must make frequent trips between the Headquarters and Warehouse sites, often several times a day. Inadequate parking at the Headquarters site exacerbates operational inefficiencies.

Management desires to provide a safe, sanitary, environmentally protective, and esthetically pleasing environment in which employees can work effectively. Four alternatives were presented from the studies, including three alternatives that considered

the utilization of both the Headquarters and Warehouse sites and one that considered complete consolidation of all programs at the Warehouse site. Objectives and factors were established for the NPS-wide priority setting process and grew out of the National Leadership Council guidance. The following four factors were considered in the development of each alternative, and help will guide the decision-making process:

- Protect Cultural and Natural Resources
 - Prevent Loss of Resources
 - Maintain and Improve Conditions of Resources
- Provide for Visitor Enjoyment
 - Provide for visitor enjoyment through educational and recreational opportunities
 - Protect public, health, safety, and welfare
- Improve Efficiency and Park Operations
 - Improve operational efficiency, reliability, and sustainability
 - Protect employee health, safety, and welfare
- Provide Cost Effective, Environmentally Responsible, and Otherwise Beneficial Development for the NPS
 - Provide other advantages to the National Park System.

RELATED LAWS, POLICIES, AND OTHER PLANNING AND MANAGEMENT DOCUMENTS

Servicewide and Park Specific Legislation and Planning Documents

The NPS Organic Act directs the NPS to manage units “to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such a manner as will leave them unimpaired for the enjoyment of future generations.” (16 U.S.C. § 1). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that the NPS must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.” (16 U.S.C. § 1 a-1). The Organic Act prohibits actions that permanently impair park resources unless a law directly and specifically allows for the acts. As stated in Chapter 1 of *NPS Management Policies 2006*, an action constitutes an impairment when its impacts “harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources and values.”

Chapter 1 of *NPS Management Policies 2006* requires the NPS to analyze the potential effects of each alternative to determine if actions would impair park resources. To determine impairment, the NPS must evaluate “the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts.” The NPS must always seek ways to avoid or minimize, to the greatest degree practicable, adverse impacts on park resources and values. However, the laws do give the NPS management discretion to allow impacts to park resources and values when

necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment to the affected resources and values.

NPS units vary based on their enabling legislation, natural and cultural resources, missions, and the recreational opportunities appropriate for each unit, or for areas within each unit. The enabling legislation for Lake Mead NRA (Public Law 88-639), established the recreation area “for the general purposes of public recreation, benefit, and use, and in a manner that will preserve, develop and enhance, so far as practicable, the recreation potential, and in a manner that will preserve the scenic, historic, scientific, and other important features of the area, consistent with applicable reservations and limitations relating to such area and with other authorized uses of the lands and properties within such area.” An action appropriate at Lake Mead NRA, as designated by the enabling legislation, may impair resources in another unit.

In Chapter 9 of *NPS Management Policies 2006*, direction and guidance are provided for park facilities. Guidance provided in the chapter that is pertinent to this proposal includes information on facility planning and design, sustainability, life-cycle costs, and construction. In regards to sustainable design and functionality, NPS requirements include protection of natural and cultural environments, resource conservation, energy conservation, pollution prevention, defensible space for fire safety, and fostering education about sustainable design and practices. The parks are also directed to incorporate sustainable principles and practices into design, siting, construction, building materials, utility systems, recycling of all unusable materials, and waste management. Guiding principles for sustainable design are consistent with Executive Order 13123 (Greening the Government through Efficient Energy Management), Executive Order 13101 (Greening the Government through Waste Prevention, Recycling and Federal Acquisition), and Executive Order 13327 (Federal Real Property Asset Management). In addition, the NPS will strive to attain the highest level of Leadership in Energy and Environmental Design (LEED) Certification practicable.

Director’s Order #38 (Real Property Leasing) provides guidance on leasing NPS real property under the authority of 36 CFR 17 and 36 CFR 18. This guidance is relevant to Alternatives B and C, where leasing of a historic government-owned property is proposed. Section 111(a) of the National Historic Preservation Act authorizes the Secretary of the Interior to lease historic property owned by the Department of the Interior. The Secretary must consult with the Advisory Council on Historic Preservation before taking an action pursuant to this part. Section 111(b) provides that proceeds from such leases of a historic property may be retained by the agency to defray the cost of administering, maintaining, repairing, or otherwise preserving the property or other properties on the National Register. Before authorizing a lease of government property, the following determinations must be made by the deciding official:

- The lease will not result in degradation of the purposes and values of the park areas.
- The lease will not deprive the park area of property necessary for appropriate park protection, interpretation, visitor enjoyment, or administration of the park area.

- The lease contains such terms and conditions as will assure the leased property will be used for activity and in a manner consistent with the purposes established by law for the park area in which the property is located.
- The lease is compatible with the programs of the NPS.
- The lease is for rent at least equal to the fair market value rent of the leased property.
- The proposed activities under the lease are not subject to authorization through a concession contract, commercial use authorization or similar instrument.
- If the lease is to include historic property, the lease will adequately insure the preservation of the historic property. (In addition, a lease that includes historic property may be executed by NPS only after compliance with 36 CFR 800, the commenting procedures of the Advisory Council on Historic Preservation).
- Specific required determinations of 36 CFR 17 or 36 CFR 18 (as applicable).

ISSUES AND IMPACT TOPICS

Issues are related to potential environmental effects of project alternatives and were identified by the project interdisciplinary team and through public scoping. Once issues were identified, they were used to help formulate the alternatives and mitigation measures. Impact topics based on substantive issues, environmental statutes, regulations, and executive orders were selected for detailed analysis. A summary of the impact topics and rationale for their inclusion or dismissal is given below.

Issues and Impact Topics Identified for Further Analysis

The following relevant impact topics are analyzed in the EA. Whether each issue is related to taking action or no action is specified.

Park Operations

Chapter 9 in *NPS Management Policies 2006* outlines each park service unit's responsibility to "provide a safe, sanitary, environmentally protective, and esthetically pleasing environment for park visitors and employees, protect the physical integrity of facilities, and preserve or maintain facilities in their optimum sustainable condition to the greatest extent possible". The proposed action would affect the work environments of NPS personnel and the overall operations of the park. Therefore, park operations will be addressed as an impact topic in this EA.

Cultural Resources

This EA is intended to address Section 106 of the National Historic Preservation Act and NEPA concerns. The term "historic properties" refers to all cultural resources, including archeological sites, historic structures or buildings, cultural landscapes, and ethnographic resources. Both the Headquarters building and the Warehouse building are historic and require Section 106 review. The Warehouse building was constructed in 1932 and has been determined eligible for the National Register of Historic Places. The Headquarters building was constructed in 1952 and is a contributing element of the Boulder City Historic District.

Safety, Visitor Use and Experience

Providing for visitor enjoyment is one of the fundamental missions of the NPS, according to the Organic Act of 1916 and NPS *Management Policies 2006*. An element of all alternatives includes the construction of an ICC which would be a centralized location for receiving and dispatching emergency calls within Lake Mead NRA and for agencies and lands in the surrounding area. The alternatives also consider the potential impacts to visitor use and experience from either retaining or removing the NPS presence from downtown Boulder City. As such, safety, visitor use and experience will be addressed as an impact topic.

Water Resources

The NPS *Management Policies 2006* and Director's Order 77 provides direction for the protection of water resources. The action alternatives involve ground-disturbing activities which could contribute to erosion and sedimentation. Paved surfaces, buildings, and other impervious surfaces could increase run-off. Therefore, water resources will be addressed as an impact topic.

Soils and Vegetation

The Headquarters and Warehouse sites have been previously graded, paved, and excavated for utilities. Vegetation at the Headquarters site is mostly lawn and deciduous trees, with a small cactus garden and some native landscaping. Vegetation at the Warehouse site is essentially non-existent, with the exception of native plant landscaping near the Resource Management offices and native trees in the parking area. Site preparation would disturb soil that could increase the potential for erosion and sedimentation to occur. The addition of new landscaping and the revision of existing landscaping would occur under all alternatives.

Adjacent Lands

The NPS owns the land that the Headquarters and Warehouse sites occupy. The 1.9-acre Headquarters site is located in the Boulder City Downtown Business District and is bordered by both residential neighborhoods and businesses. The 15.3-acre Warehouse site is situated adjacent to State Highway 93, and is bordered by a residential neighborhood and a mobile home park. Boulder City receives substantial traffic related to tourism, including tour buses and other commercial services transporting visitors from Las Vegas, visitors en route to the park or Hoover Dam, and people attending the numerous special events held in the town throughout the year. Visitation is especially high during the summer months. Possible disturbance and inconvenience to the surrounding community from construction activities may also occur; therefore, potential impacts on adjacent lands will be addressed as an impact topic.

Impact Topics Considered but Dismissed from Further Consideration

The following topics are not further addressed in this document because there are no potential effects to these resources, which are either not in the project area or would be imperceptibly impacted: designated ecologically significant or critical areas; wild or scenic rivers; wetlands; floodplains; wilderness; designated coastal zones; Indian Trust Resources; prime and unique agricultural lands; sites on the US Department of the

Interior's National Registry of Natural Landmarks; or, sole or principal drinking water aquifers.

The potential impacts to wildlife and wildlife habitat from any alternative are negligible and therefore have been dismissed from further analysis. The Headquarters site is located within the downtown area of Boulder City and does not provide quality habitat for wildlife. The Warehouse site is completely enclosed by a fence and does not provide quality habitat for wildlife. Rabbits, packrats, and various bird species would most likely avoid construction activities and would continue to move in and out of the area after construction was completed.

The Endangered Species Act of 1973 mandates an examination of impacts on all species on the federal list of threatened or endangered species. No special status species exist in the project areas; therefore, this impact topic has been eliminated from further consideration.

Since the project occurs outside the park boundary, impacts to the park's air quality and soundscapes have not been evaluated. The action alternatives include construction activity that may impact air and sound quality, but these effects, which are expected to be temporary and minor, have been addressed under the topic of Adjacent Lands.

Although traffic is a concern at the Warehouse site, where ingress and egress is off the increasingly busy U.S. Highway 93, traffic has not been included for analysis as the issue is beyond the scope of this Plan and will instead be addressed by the City of Boulder City in their planning for future improvements to U.S. 93.

Regarding energy requirements, construction activities would require the increased use of energy for the construction itself and for transporting materials. Overall, the energy from petroleum products required to implement any alternative would be insubstantial when viewed in light of production costs and the effect of the national and worldwide petroleum reserves. In addition, the LEED certification for new facilities will ensure that energy use is as efficient as possible.

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires all federal agencies to incorporate environmental justice into their missions by addressing adverse human health or environmental effects of their programs on minorities and low-income populations and communities. None of the alternatives in this EA would have disproportionate health or environmental consequences for minorities or low-income populations or communities; therefore, this topic will not be discussed further. In addition, there are no potential conflicts between the project and land use plans, policies, or controls (including state, local, or Native American) for the project area.

SECTION II: DESCRIPTION OF ALTERNATIVES

INTRODUCTION

This section describes the alternatives considered, including the no action alternative. The alternatives described include mitigation measures and monitoring activities proposed to minimize or avoid environmental impacts. This section also includes a description of alternatives considered early in the process but later eliminated from further study; reasons for their dismissal are provided. This section concludes with a comparison of the alternatives considered.

Elements Common to All Alternatives

Under all alternatives, an interagency communications center would be constructed at the Warehouse site. The current dispatch center has outgrown the existing facility and is in need of updated technology to support existing customers and assist other agencies. In addition, the level of security of the existing dispatch center is inadequate, and the center does not provide a pleasant work environment for 24-hour operation. Locating the new facility at the Warehouse site keeps this critical park function near other NPS staff and is consistent with the proposed Master Plan. Expansion of the dispatch center at its current location would require finding a temporary site during construction, and locating the facility within the park conflicts with the directive to limit development inside the park boundary.

The ICC would function as a dispatch facility and Emergency Operations Center. It would support NPS operations, and would potentially support the Bureau of Land Management (in NV and AZ), US Fish and Wildlife Service (NV, AZ, CA), U.S. Forest Service, Bureau of Reclamation (Hoover Dam), Nevada Department of Wildlife, Arizona Fish and Game, Nevada State Parks, Nevada U.S. Marshal Service Office, and many other State and Federal users. In addition to supporting all the law enforcement units of these agencies, the ICC would serve as a Public Safety Answering Point (911) and would provide the public with access to emergency assistance for incidents and events occurring on public and private lands in the surrounding area. The new Interagency Colorado Radio running from the Mexican border to Boulder City, Nevada is connected to the existing Lake Mead NRA dispatch center to provide law enforcement support for federal agencies along the Colorado River. A key lesson of 09/11/01 is the need for interoperability between public safety agencies, and the existing Lake Mead NRA dispatch center accomplishes this partnership in its operations area. The Southwest Radio Communications Task Force from the Law Enforcement Office of the Department of Interior is highly interested in what Lake Mead NRA has accomplished and would like to see the area of responsibility broaden and provide more assistance to agencies in the Southwest.

The ICC would be developed utilizing sustainable and responsible design techniques. Site preparation would include grading, utility extensions and connections, and installation of a solar collection system for supplemental power and shade structures, and

desert landscaping with native plant species. The ICC facility would be designed and constructed to meet the Silver Certification Level of the LEED Green Building Rating System. The architectural style of the facility will be consistent in style and character with other buildings in the local area. The building would be approximately 5,200 square feet, and would be equipped with adequate programmed space, technology, and security systems. The ICC would accommodate growth potential for up to sixteen dispatch positions; provide field units with state of the art backbone communication links (secure wireless voice and data circuits, etc.), operations management with an Emergency Operations Center, and the equipment/electronics to support these operations. The building would include an uninterrupted power supply, backup generators, and various backup and/or redundant communications links. In addition to the work area and emergency operations center, the building would provide an equipment area, three offices, conference space, break area, administration area, and locker rooms/restrooms. The new facility would require public access for submitting bond payments.

In the interest of conserving water and reflecting the desert environment in which it is located, the Headquarters site may be re-landscaped to a more water-friendly xeriscape under all alternatives.

Elements Common to the Three Action Alternatives

Each of the Master Plan Alternatives represents a range of possible solutions for resolving the NPS's immediate and future needs. Considering the complex functions and operations of each division, each of the Master Plan alternatives addresses both the Headquarters site and the Warehouse site. Each alternative meets the requirements for necessary space for each division (including construction of the ICC), as well as employee and government parking, as defined by the Space Utilization Study. The action alternatives present the project components associated with the overall Master Plan. Funding is currently available only for the ICC. Construction of other components associated with the Master Plan is not financially possible at this time. Consequently, these other project components may be implemented in phases and would be dependent on acquiring additional funding. Additional site-specific compliance will be completed as appropriate when individual plan components are implemented.

Future facilities would be created that communicate timelessness, pride, legacy, dignity, stability, efficiency, and flexibility. The architectural theme that would be carried out through each of the facilities would be designed to connect to the historical past of Boulder City, typically reflecting Spanish colonial using stucco and red tile roofs, with recessed windows and arched covered walkways or entryways.

Sustainable Design and LEED Goals: The action alternatives consider a sustainable campus plan that incorporates design elements, in concert with the ICC building, to achieve LEED goals. This allows the NPS to set standards that reduce the environmental impact of all buildings on the site and to assist individual buildings that share amenities in achieving LEED certification. Utility upgrades or extensions may be needed to serve the new facilities. However, use of renewable energy would reduce the reliance on conventional energy sources, while the consolidation of buildings and the construction of

new, more energy efficient structures would reduce overall energy costs required to maintain numerous, separate buildings.

While each alternative provides similar opportunities for future development, key differences among alternatives were identified, including: 1) how to utilize the historic Headquarters and Warehouse buildings; 2) the level of NPS presence maintained at the downtown site; and, 3) campus versus “one-building” organization.

ALTERNATIVE A- NO ACTION

The Headquarters and Warehouse sites collectively house the following divisions: Superintendent, Administration, Concessions, Interpretation, Maintenance, Resource Management, and Visitor and Resource Protection. NPS staff is spread out between numerous buildings at the two sites. Under the No Action Alternative, the NPS would maintain occupancy at both locations, and the division of operations would remain essentially unchanged (Figures 4-6). Slight modifications would occur on an as-needed basis and could be expected to continue as staffing and operational needs change. However, no Master Plan would be devised or implemented to guide future development at either the Headquarters site or Warehouse site. The ICC is already funded and would be constructed under the No Action Alternative, but there would be no vision for subsequent development. As needs for office space, parking, and storage continue to change over time, temporary solutions would be accommodated within the existing layouts of the two sites. At the Warehouse site, some of these solutions may include modular buildings, trailers, and prefabricated storage units and sheds. These facilities have a relatively short life span and would likely need to be replaced every 15 years. Under this alternative, the Headquarters site may be re-landscaped to a more water-friendly xeriscape.

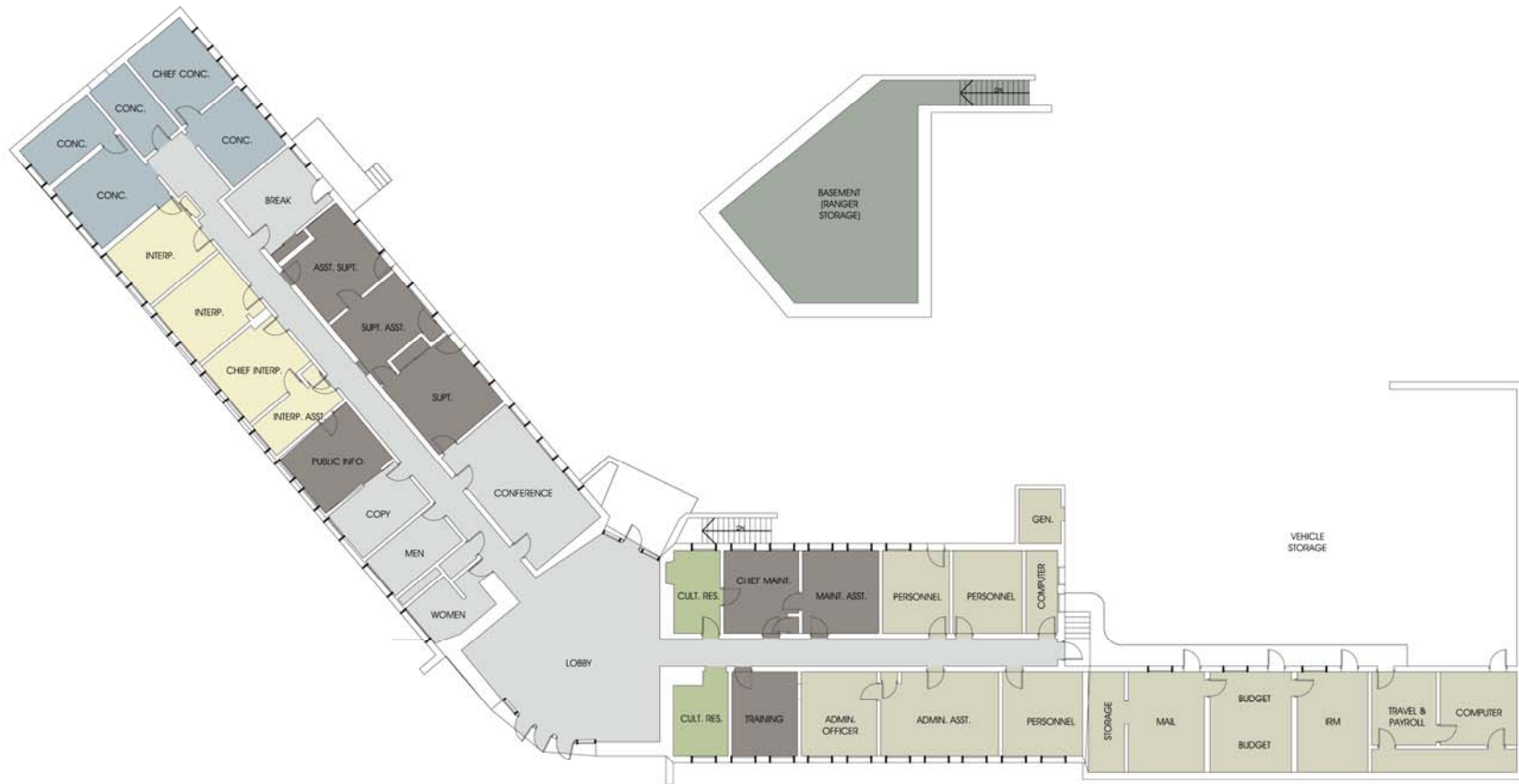


Figure 4. Existing layout of Headquarters building (*courtesy of ajc architects, 2007*).

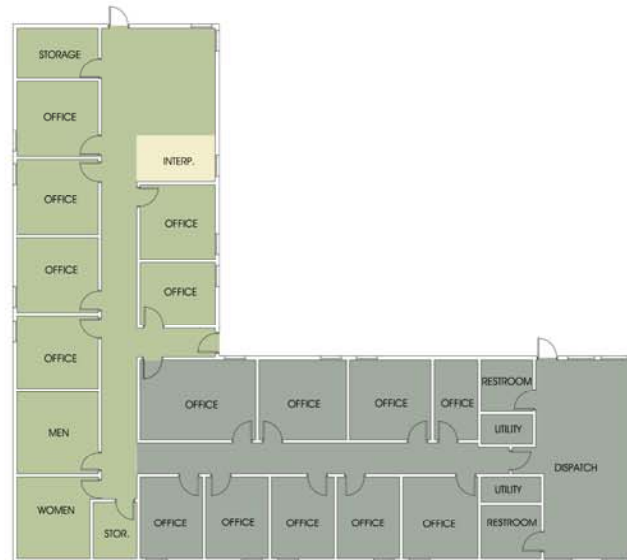


Figure 5. Existing layout of Headquarters Annex (*courtesy of ajc architects, 2007*).

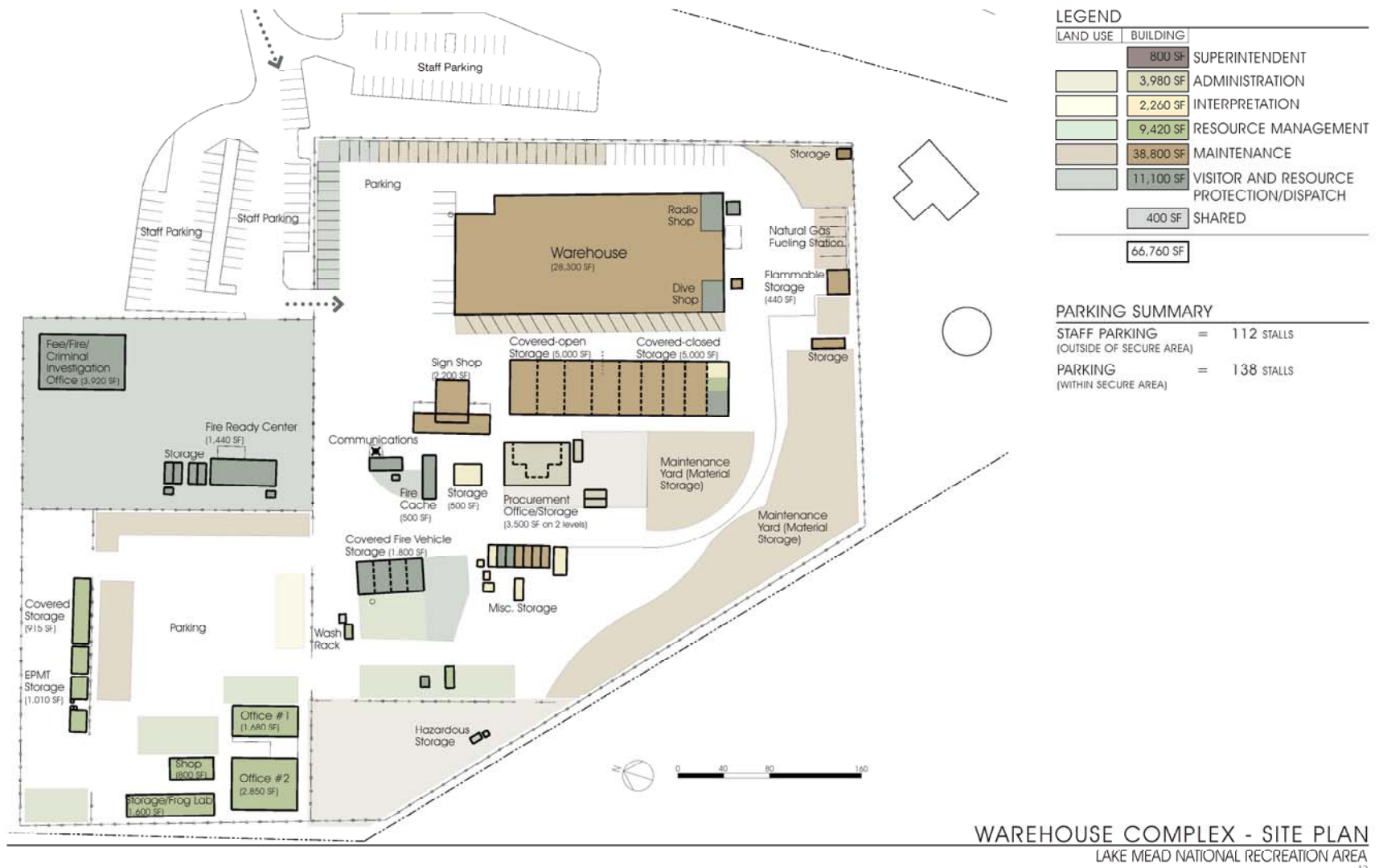


Figure 6. Existing layout of the Warehouse Site (courtesy of *ajc architects*, 2007).

ALTERNATIVE B- COMPLETE CONSOLIDATION OF NPS DIVISIONS AT THE WAREHOUSE SITE

Key Features at the Headquarters Site

- The Headquarters building would no longer be occupied by the NPS and would be leased out to non-NPS organizations.
- The Annex and Headquarters Addition would be removed to restore the historical appearance of the Headquarters building. The area vacated by the buildings would be converted to additional parking.
- The Headquarters site may be re-landscaped to a more water-friendly xeriscape.

Key Features at the Warehouse Site

- All NPS divisions would be consolidated at the Warehouse site (Figure 7).
- The Warehouse building would be renovated for the Maintenance and Professional Services Division.
- Most divisions would be consolidated into one, two-story building.
- New development would be concentrated on the north end of the site and organized around a courtyard for government vehicle parking.
- New storage buildings would be constructed adjacent to divisions.
- Existing site circulation would be essentially maintained.
- Separate loading docks for Maintenance and Administration would be provided.
- A significant portion of the site would be kept open and flexible for future development.

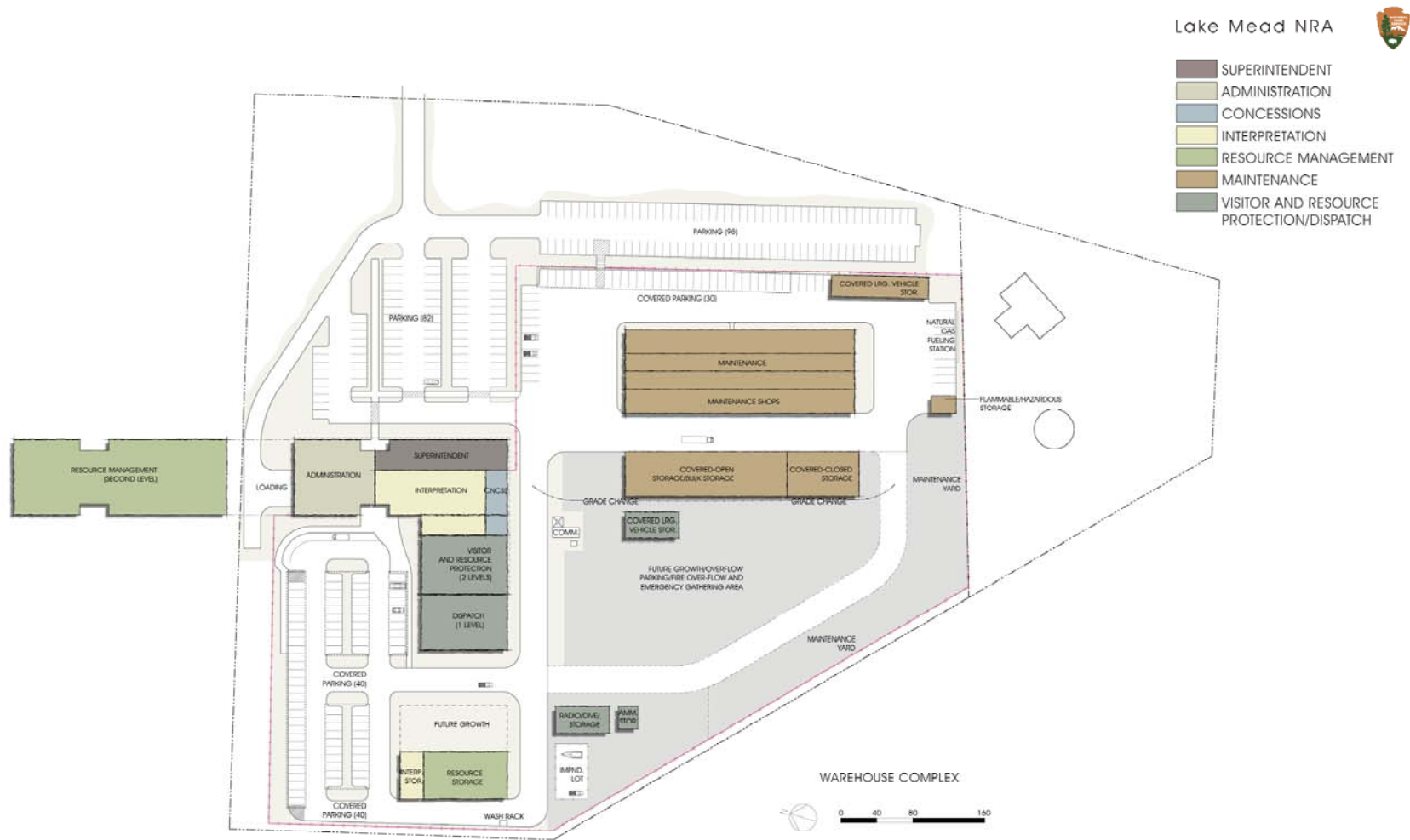


Figure 7. Schematic design of the Warehouse site under Alternative B (*courtesy of ajc architects, 2007*).

ALTERNATIVE C- CONSOLIDATION AT WAREHOUSE SITE WITH DOWNTOWN NPS CONTACT STATION (MANAGEMENT-PREFERRED ALTERNATIVE)

Key Features at the Headquarters Site

- The Headquarters building would be renovated for lease to non-NPS (but mission-compatible) organizations. A minimum amount of office space would be retained for NPS public contact in downtown Boulder City (Figure 8).
- The Annex and Headquarters Addition would be removed to restore the historical appearance of the Headquarters building. The area vacated by the buildings would be converted to additional parking.
- The Headquarters site may be re-landscaped to a more water-friendly xeriscape.

Key Features at the Warehouse Site

- Consolidation of divisions at the Warehouse site would be maximized (Figure 9).
- The Warehouse building would be renovated for the Maintenance and Professional Services Division.
- Most divisions would be consolidated into one, two-story building.
- A new shop would be constructed for Resource Management, and new storage space would be provided for Resource Management, Interpretation, and Visitor and Resource Protection.
- New development would be organized around landscaped “green-space” areas, providing a continuous pedestrian link to all buildings/divisions.
- Separate loading docks would be provided for Administration and Maintenance.
- Specific areas along the pedestrian link would be kept open and flexible for future development.

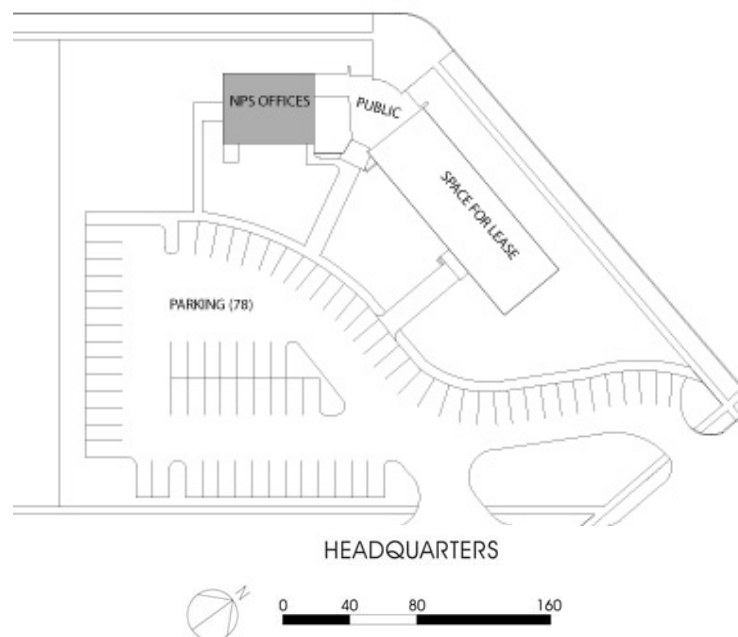


Figure 8. Schematic design of the Headquarters site under Alternative C (*courtesy of ajc architects, 2007*).

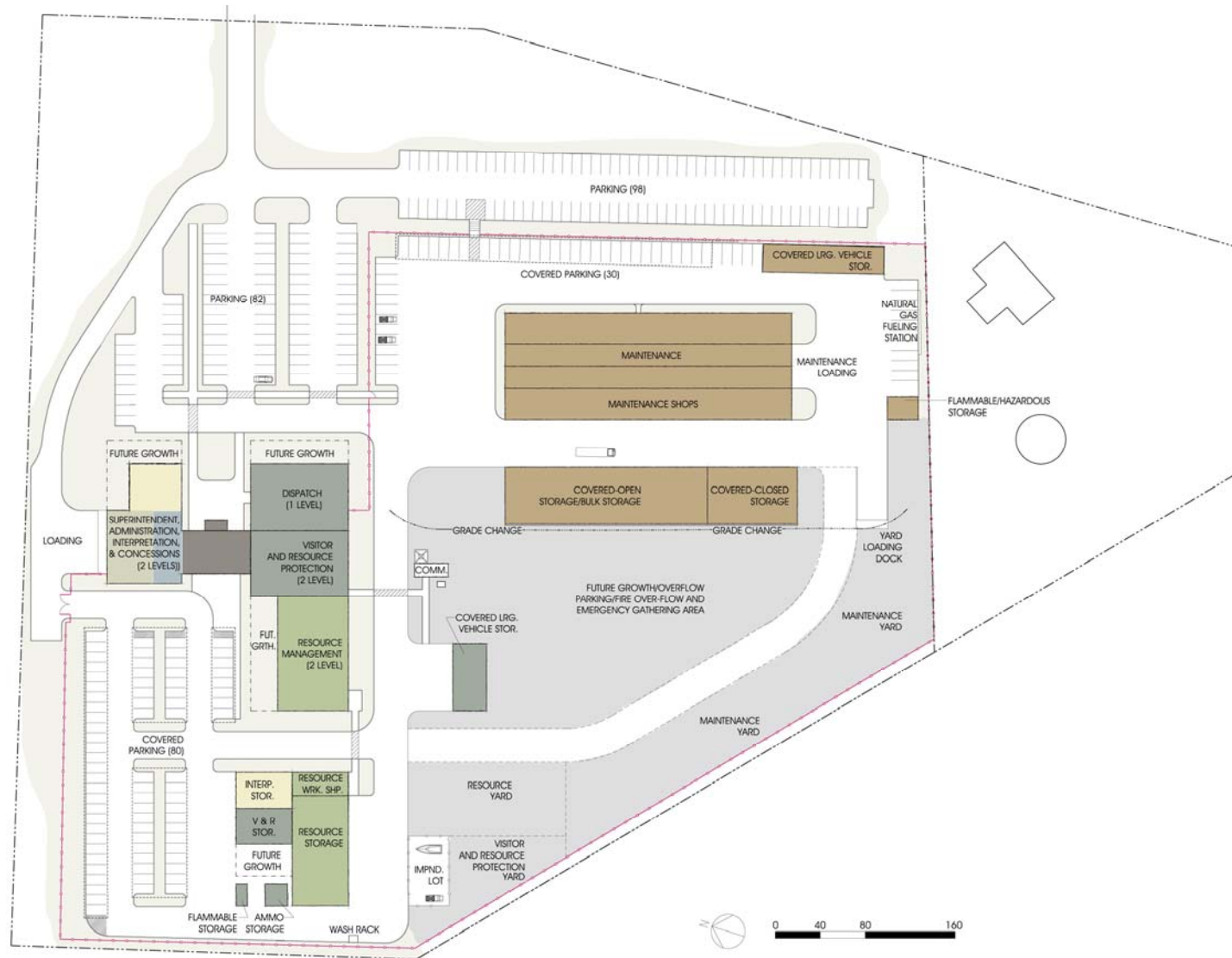


Figure 9. Schematic design of the Warehouse site under Alternative C (*courtesy of ajc architects, 2007*).

ALTERNATIVE D- RETENTION OF DOWNTOWN PRESENCE AND CONSTRUCTION OF NEW BUILDINGS AT THE WAREHOUSE SITE

Key Features at the Headquarters Site

- The Headquarters building would be renovated for Superintendent and Concessions offices to maintain a significant NPS presence in downtown Boulder City (Figure 10).
- The Annex and Headquarters Addition would be removed to restore the historical appearance of the Headquarters building. The area vacated by the buildings would be converted to additional parking.
- The Headquarters site may be re-landscaped to a more water-friendly xeriscape.

Key Features at the Warehouse Site

- The Warehouse building would be renovated for the Maintenance and Professional Services Division (Figure 11).
- New separate building(s) would be constructed for Visitor and Resource Protection, Administration, Interpretation, and Resource Management.
- New development would be concentrated on the north end of the site and organized around a courtyard for government vehicle parking.
- New storage buildings would be constructed adjacent to divisions.
- Existing site circulation would be maintained.
- Separate loading docks would be provided for Administration and Maintenance.
- A significant portion of the site would be kept open and flexible for future development.

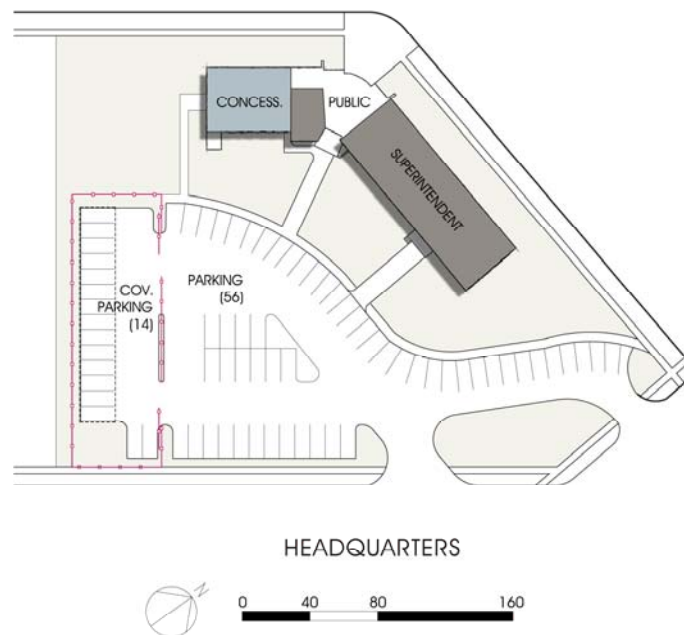


Figure 10. Schematic design of the Headquarters site under Alternative D (*courtesy of ajc architects, 2007*).

Safety, Visitor Use and Experience

All proper Occupational Safety and Health Administration codes would be met to ensure compliance, to promote worker safety, and for operational efficiency.

Water Resources

Best Management Practices are means of preventing or reducing nonpoint source pollution into the wash and of minimizing soil loss and sedimentation. Erosion control measures would be implemented to minimize minor and short-term impacts to water quality.

Soils and Vegetation

All equipment and materials used during construction would be cleaned or pressure-washed to reduce the potential for the spread of non-native species. Best Management Practices would be followed for site grading and soil preparation, erosion control, and post-construction monitoring.

Adjacent Lands

Construction activities will be limited to daylight work hours during the week. Only well maintained and properly functioning equipment and vehicles will be used. Idling equipment and vehicles will be turned off when not in use. Mufflers and sound attenuation devices will be installed and maintained on all equipment and vehicles. A press release would be published notifying residents and businesses of work occurring at the Headquarters site.

Sustainable Design and LEED Goals

The ICC will be designed and constructed to meet the LEED Silver Certification. The ICC building will set the prototype for subsequent buildings that will be constructed as funding becomes available. All phases will strive to attain the highest level of LEED certification possible, and will incorporate green building design and renewable energy concepts.

Air Quality

Dust abatement measures would be implemented to minimize the generation of particulate matter during ground disturbance and construction activities. All necessary and reasonable measures would be taken to reduce air pollution, including wetting down dry material during earth-disturbing activities, utilizing or removing excavated materials as soon as possible, and keeping the project area neat, orderly, and in a safe condition at all times. Vehicle idling will be kept to a minimum. Low-sulfur fuel would be used to the greatest extent practicable.

Visual Resources

Mitigation for impacts to aesthetics is largely incorporated into the design of the ICC and future-planned facilities. The architectural style of the facilities will be consistent in style and character with the existing buildings in Boulder City. The historic Headquarters and

Warehouse buildings will retain their historic appearance. Xeriscaping with desert rock and native vegetation will be used where appropriate.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER EVALUATION

Hacienda Hotel and Casino

In 2004, the Department of Interior underwent negotiations with the owners of the Hacienda Hotel and Casino, located on a private inholding within Lake Mead NRA, to purchase the land and convert the building into a government office facility. After several months of negotiation, the owners of the property opted not to sell, and the Hacienda Hotel and Casino remains in business.

Site within Lake Mead NRA

Chapter 9 of *NPS Management Policies 2006* provides direction on facility development within national parks. It states that “whenever feasible and authorized by Congress, major park facilities- especially those that can be shared with other entities- should be developed outside park boundaries”. In addition, “the National Historic Preservation Act and Executive Order 13006 (Locating Federal Facilities on Historic Properties) require each federal agency- before acquiring, constructing, or leasing buildings- to use, to the maximum extent feasible, historic properties available to it whenever operationally appropriate and economically prudent”. In the case at hand, the NPS owns two historic buildings located outside the park boundary from which it currently does business. There is no existing historic structure within the park that is vacant or large enough to accommodate NPS operations, and ground disturbance in a previously undisturbed area within the park would be required to construct the desired facility. This would result in unnecessary impacts on park resources when existing viable alternatives for land utilization outside the park currently exist. With these considerations in mind, the option to site the facility within the park has been dismissed from further evaluation.

CONSULTATION, COORDINATION, AND PERMIT REQUIREMENTS

A press release (Appendix A) was provided to area media and posted on the park website and on the NPS Planning, Environment, and Public Comment (PEPC) website on December 12, 2007 to announce the public scoping period. The 30-day scoping period ended on January 18, 2008. One comment was received supporting NPS's continued presence at the current Headquarters location. In addition, the following consultation and coordination will occur as part of this environmental assessment:

- Compliance with Sections 106 and 111 of the National Historic Preservation Act through the State Historic Preservation Office.
- Public distribution and 30-day review of the EA.
- Clark County dust permits will be obtained prior to construction.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is the alternative that will promote NEPA, as expressed in Section 101 of NEPA. This alternative will satisfy the following requirements:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Assure for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable or unintended consequences;
- 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;
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and,
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Alternative C is the environmentally preferable alternative because overall it would best meet the requirements in Section 101 of NEPA. It would attain the widest range of beneficial uses of the environment. By consolidating and modernizing NPS facilities, it would (unlike Alternative A) enhance the quality of renewable resources and approach

the maximum attainable recycling of depletable resources. The renovation of the warehouse and the construction of new buildings to consolidate NPS divisions would eliminate the need for the temporary and modular structures, which have short life spans, require extensive upkeep, and are not environmentally friendly or life-cycle cost effective. By maintaining NPS ownership and occupancy of the Headquarters building, it would (unlike Alternative B) preserve NPS presence in a community where it has existed for several decades. The NPS has served the public at the Headquarters location for decades and is a well-known and valued part of downtown Boulder City. By creating a small public contact station in Boulder City and consolidating all other operations at the Warehouse site, it would (unlike Alternative D) maximize the efficiency of park operations. Staff communication would be improved by having most employees in a single location, and new facilities would improve space utilization for both staff and equipment and reduce the park's maintenance and upkeep costs.

COMPARISON OF IMPACTS

Table 1 summarizes the potential long-term impacts of the proposed alternative. Short-term impacts are not included in this table, but are analyzed in the Environmental Consequences section. Impact intensity, context, and duration are also defined in the Environmental Consequences section.

IMPACT TOPIC	ALTERNATIVE A (NO ACTION)	ALTERNATIVE B	ALTERNATIVE C (PREFERRED)	ALTERNATIVE D
Park Operations	Moderate to major adverse impacts	Major beneficial effects	Major beneficial effects	Moderate beneficial effects
Cultural Resources	Moderate impacts	Moderate impacts with beneficial effects	Moderate impacts with beneficial effects	Moderate impacts with beneficial effects
Safety, Visitor Use, and Experience	Minor impacts	Minor impacts	Minor impacts	Minor impacts
Water Resources	Minor beneficial effects	Minor beneficial effects	Minor beneficial effects	Minor beneficial effects
Soils and Vegetation	Negligible impacts	Minor impacts	Minor impacts	Minor impacts
Adjacent Lands	Negligible impacts	Moderate beneficial effects	Moderate beneficial effects	Moderate beneficial effects

SECTION III: AFFECTED ENVIRONMENT

INTRODUCTION

This section provides a description of the existing environment in the project area and the resources that may be affected by the proposals and alternatives under consideration. Complete and detailed descriptions of the environment and existing use at Lake Mead NRA is found in the *Lake Mead General Management Plan Amendment* (2005), *Lake Mead NRA Lake Management Plan and Final Environmental Impact Statement* (2002), *Lake Mead NRA Resource Management Plan* (2000), and the *Lake Mead NRA General Management Plan* (NPS 1986).

Location and General Description of Lake Mead NRA and the Project Area

Lake Mead NRA

In 1936, the internationally-recognized Hoover Dam was completed to impound the Colorado River, forming Lake Mead. The U.S. Bureau of Reclamation (Reclamation), realizing the magnitude of the job of administering such a vast resource, turned to its sister agency in the Department of the Interior for its expertise and help. By a memorandum of agreement, on October 13, 1936, the NPS assumed administration of "Boulder Dam Recreation Area." On October 8, 1964, Lake Mead NRA was established and became the first national recreation area.

Lake Mead is located in southern Nevada and northwestern Arizona, about 20 miles southeast of Las Vegas, Nevada, and about 5 miles north of Bullhead City, Arizona, and Laughlin, Nevada (Figures 1 and 2). The recreation area is approximately 1.5 million acres in size, with about 87% of that acreage being terrestrial resources. Approximately 60% of the total acreage is within the state of Arizona, in Mohave County, and 40% of the total acreage is in the state of Nevada, in Clark County.

Historic Boulder City

Reclamation originally planned Boulder City as a residential area for workers building the Hoover Dam. The original Reclamation Master Plan for the city, created by DeBoer, incorporated an evident triangular design that is bounded by Nevada Way, Utah Street, and Wyoming Street. The historic Reclamation building is located at the apex of the triangle, and was the first home of the NPS. Today the NPS manages Lake Mead NRA from two separate historic sites in Boulder City: the Headquarters site and the Warehouse site. These sites, and all associated structures, are owned and maintained by the NPS.

The historic Headquarters building at 601 Nevada Way was built in 1952 in downtown Boulder City at the intersection of Nevada Way and Wyoming Street. An addition to the building was constructed in 1975, and a separate temporary annex was built on the same site in 1991 to provide additional space for NPS staff and operations. The Warehouse site is located on the northwestern edge of Boulder City on State Highway 93, approximately $\frac{3}{4}$ mile northwest of the Headquarters site. The historic Warehouse building, constructed in 1932, was served by a railroad spur and was a major warehouse

for the Six Companies who were constructing the Hoover Dam. In 1960, the NPS began using the Warehouse site for storage and maintenance operations.

Park Operations

The number of employees at Lake Mead NRA is constantly changing. Full-time, permanent staffing at the park has fluctuated approximately 18% over the past ten years. Term, seasonal, and contract employees have increased in response to the Southern Nevada Public Lands Management Act, which provides money generated from the sale of public land in Southern Nevada to fund capital improvement and conservation-related projects. The park also uses numerous volunteers to accomplish projects that otherwise may not get completed; the number of volunteers at Lake Mead NRA has increased dramatically from 685 in 2001 to 2,468 in 2007.

The Headquarters building is an administrative site with office space for the Superintendent, Interpretation, Administration, and Concessions. In addition, the building contains a public contact/lobby area providing information on Lake Mead NRA and the surrounding area. The basement provides a storage area for Visitor and Resource Protection. The Headquarters Annex contains the dispatch center and office space for the Visitor and Resource Protection division and Resource Management division. There are approximately 58 parking stalls available at the 1.9-acre Headquarters site.

Located on the main thoroughfare of Boulder City, the Headquarters site is not only familiar to local residents, it is easily recognized as a NPS site to visitors and tourists passing through town. While not a visitors' center, many people stop at the downtown site to obtain information about the park. The Human Resources and Public Information offices are located at this site, as are the offices of key management personnel, and the site receives numerous visitors each day.

The Warehouse site is 15.3 acres in size and contains facilities for the Maintenance, Resource Management, Visitor and Resource Protection, Interpretation, and Administration divisions. The most prominent building on the site is the Warehouse building, which primarily houses the office and shop functions for Maintenance. The building is divided down the center by an open bay, with shop functions on one side, and offices on the other. A mezzanine provides additional offices and storage space. Other facilities associated with Maintenance at the Warehouse site include the sign shop, covered material storage, flammable storage, a variety of miscellaneous storage buildings, and numerous yards used for material and equipment storage.

In addition to Maintenance, Resource Management has a large presence at the Warehouse site. Resource Management facilities include three office buildings, covered storage, a shop, frog laboratory, and miscellaneous storage buildings.

Also within the Warehouse site are facilities for the Visitor and Resource Protection division. These facilities include an office building for Fee, Fire, and Criminal Investigation employees, as well as a fire-ready center, fire cache, covered vehicle

storage area, and miscellaneous storage buildings. The Mojave Network Inventory and Monitoring Program currently has staff here as well.

The Administrative procurement function for the facility is located near the center of the complex, housing both office and storage functions. Procurement receives deliveries from numerous vendors that provide the park with supplies and materials.

Facilities for the Interpretation division at the Warehouse site are limited to a variety of storage buildings scattered throughout the site.

Parking for the facility is separated between secure and non-secure portions of the site. There are approximately 138 parking stalls for government vehicles available within the secure portion, and 112 stalls available for staff parking in the non-secure portion

Cultural Resources

The historic Headquarters building was built in 1952 in downtown Boulder City at the intersection of Nevada Way and Wyoming Street and is a contributing element of the Boulder City Historic District. It is significant as the largest example of an International Style Building in the district and contributes to the understanding of Boulder City's expanding role as a government center. The historic Warehouse building, originally constructed in 1932, was served by a railroad spur and was the major warehouse for the Six Companies who were constructing the Hoover Dam. It has been in use by the NPS since 1960 and has been modified with the addition of concrete masonry unit walls and offices on the east side. The Warehouse structure has been determined eligible to the National Register of Historic Places under criteria A and C. Because the building has been determined eligible under criterion C, the structure is considered architecturally significant. Both the Headquarters building and the Warehouse are on the park's List of Classified Structures.

Safety, Visitor Use and Experience

Lake Mead and Lake Mohave offer a variety of recreational opportunities and are what attract most of the visitors to the park. Lake Mead NRA visitors include boaters, swimmers, fishermen, hikers, photographers, roadside sightseers, canoeists, kayakers, backpackers, bicyclists, and campers. Recreation visits in 2006 totaled just over 8 million and represent a substantial contribution to the area's economy. The majority of park visitation occurs during the summer months and involves water-based recreation. However, visitation is increasing in the spring and fall as visitors discover the backcountry regions of the recreation area through hiking and travel on the approved road system.

Lake Mead NRA has two visitor centers: the Alan Bible Visitor Center is located near Boulder Beach, and the Katherine's Landing Visitor Center is located in the southern portion of the park at Katherine's Landing. In addition, the Headquarters building has a public lobby where visitors and tourists to Boulder City can stop in for information about the park.

Water Resources

Average annual rainfall in Boulder City, NV is approximately 5.55 inches. Although rain events are rare in the Mojave Desert, rain during the monsoon season in the summer and occasional winter rains can result in heavy precipitation that may lead to flood events.

The Headquarters site is relatively flat, and has a northwest to southeast maximum slope of 6-8 feet. Precipitation that accumulates at the Headquarters site is channeled into the city's wastewater system and eventually leads to Lake Mead.

The Warehouse site is situated on a gradual west to east slope that is 40 feet total. There is an 8 foot retaining wall in the middle of the slope. A major drainage is located at the north and east boundaries of the property. A retaining wall is located on the west side of the property, separating the Warehouse site from the mobile home neighborhood. Rainwater that collects in the River Mountains upslope of the site, is channeled into the north drainage, then into the east drainage, and eventually into Lake Mead.

Soils and Vegetation

Soils at both the Headquarters and Warehouse sites have been previously graded, paved, and excavated for utilities. Vegetation at the Headquarters site is mostly lawn and deciduous trees, with a small cactus garden and some native landscaping. Vegetation at the Warehouse site is essentially non-existent, with the exception of native plant landscaping near the Resource Management offices and a few native trees in the parking area.

SECTION IV: ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This section presents the likely beneficial and adverse effects to the natural and human environment that would result from implementing the alternatives under consideration. This section describes short-term and long-term effects, direct and indirect effects, cumulative effects, and the potential for each alternative to result in unacceptable impacts or impairment of park resources. Interpretation of impacts in terms of their duration, intensity (or magnitude), and context (local, regional, or national effects) is provided where possible.

METHODOLOGY

In describing potential environmental impacts, it is assumed that the mitigation identified in the *Mitigation and Monitoring* section of this EA would be implemented under any of the applicable alternatives, as identified in each mitigation criterion. Impact analyses and conclusions are based on NPS staff knowledge of resources and the project area, review of existing literature, and information provided by experts in the NPS or other agencies. Any impacts described in this section are based on preliminary design of the alternatives under consideration. Effects are quantified where possible; in the absence of quantitative data, best professional judgment prevailed.

Impacts are characterized as negligible, minor, moderate, or major, according to definitions provided for each impact topic below. In addition, the following terms may also be used in characterizing impact type:

- *Localized Impact* - The impact occurs in a specific site or area. When comparing changes to existing conditions, the impacts are detectable only in the localized area.
- *Direct Effect* - The effect is caused by the action and occurs at the same time and place.
- *Indirect Effect* - The effect is caused by the action and may occur later in time or be farther removed in distance, but is still reasonably foreseeable.
- *Short-Term Effect* - The effect occurs only during or immediately after implementation of the alternative.
- *Long-Term Effect* - The effect could occur for an extended period after implementation of the alternative. The effect could last several years or more and could be beneficial or adverse.

IMPAIRMENT ANALYSIS

In addition to determining the environmental consequences of the alternatives, the NPS must analyze potential effects to determine if actions would impair park resources, as defined in Chapter 1 of *NPS Management Policies 2006*. Under the NPS Organic Act and the General Authorities Act, as amended, the NPS may not allow the impairment of park resources and values except as authorized specifically by Congress. The NPS must always seek ways to avoid or minimize, to the greatest degree practicable, adverse impacts on park resources and values. However, the laws do give the NPS management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment to the affected resources and values.

Impairment to park resources and values has been analyzed within this document. Impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. An impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is necessary to fulfill specific purposes identified in the enabling legislation or proclamation of the park; is the key to the cultural or natural integrity of the park or to opportunities for enjoyment of the park; or is identified as a goal in the park's general management plan or other relevant NPS planning document. An impact would be less likely to constitute an impairment to the extent that it is an unavoidable result, which cannot be reasonably further mitigated, of an action necessary to preserve or restore the integrity of park resources or values.

Impairment may result from NPS activities in managing the recreation area, visitor activities, or from activities undertaken by concessioners, contractors, and others operating in the recreation area. In this "Environmental Consequences" section, a determination on impairment is made in the conclusion statement of applicable resource impact topics for each alternative. The NPS does not analyze park operations, visitor use and experience, and health and safety, in terms of impairment.

UNACCEPTABLE IMPACTS

The impact threshold at which impairment occurs is not always readily apparent. Therefore, the NPS will apply a standard that offers greater assurance that impairment will not occur. Chapter 1 of *NPS Management Policies 2006* requires that park managers evaluate existing or proposed uses and determine whether the associated impacts on park resources and values are acceptable. Unacceptable impacts are impacts that fall short of impairment, but are still not acceptable within a particular park's environment.

Virtually every form of human activity that takes place within a park has some degree of effect on park resources or values, but that does not mean the impact is unacceptable or that a particular use must be disallowed. For the purposes of this analysis, an unacceptable impact is an impact that individually or cumulatively would:

- be inconsistent with a park's purposes or values
- impede the attainment of a park's desired future conditions for natural and cultural resources as identified through the park's planning process
- create an unsafe or unhealthful environment for visitors or employees
- diminish opportunities for current or future generations to enjoy, learn about, or be inspired by park resources or values
- unreasonably interfere with:
 - park programs or activities
 - an appropriate use
 - the atmosphere of peace and tranquility, or the natural soundscape maintained in wilderness and natural, historic, or commemorative locations within the park
 - NPS concessioner or contractor operations or services

CUMULATIVE EFFECTS

Cumulative effects are the direct and indirect effects of a proposed project alternative's incremental impacts when they are added to other past, present, and reasonably foreseeable actions, regardless of who carries out the action (40 CFR 1508.7). Guidance for implementing NEPA (Public Law 91-190, 1970) requires that federal agencies identify the temporal and geographic boundaries within which they will evaluate potential cumulative effects of an action and the specific past, present, and reasonably foreseeable projects that will be analyzed. This includes potential actions within and outside the recreation area boundary. The geographical boundaries of analysis vary depending on the impact topic and potential effects. While this information may be inexact at this time, major sources of impacts have been assessed as accurately and completely as possible, using all available data.

Specific projects or ongoing activities with the potential to cumulatively affect the resources (impact topics) evaluated for the project are identified in this document and described in the following narrative. Some impact topics would be affected by several or all of the described activities, while others could be affected very little or not at all. How each alternative would incrementally contribute to potential impacts for a resource is included in the cumulative effects discussion for each impact topic.

The park currently receives about 8 million visitors per year. With the predicted increases in population in the local and surrounding areas, visitation can be expected to increase in the coming years. To accommodate the visitors, and to maintain and improve its existing facilities, the park is undertaking numerous development projects, including replacement of water and sewer systems, redevelopment projects at Willow Beach and Callville Bay, and the preparation of development concept plans for Katherine's Landing and Cottonwood Cove. Construction, rehabilitation and maintenance of park infrastructure is ongoing. All of these actions impact the park's staff and its visitors, so any improvements to park operations and visitor experience that result from the proposed action would be particularly welcome.

Development in Boulder City, Henderson, and Las Vegas affects both the park and its neighbors. Residents of Boulder City experience large traffic volumes due to tourism and to its location as a gateway to Arizona. Construction of the Hoover Dam bridge has been ongoing for several years. A new transportation corridor, the Boulder City Bypass, is in the planning stages. Road projects are common throughout the area. Given the impacts to air, noise, and traffic that result from these projects, cumulative impacts associated with the implementation of the Master Plan for Headquarters and the Warehouse is expected to have negligible cumulative impacts in most situations.

ANALYSIS OF IMPACT TOPICS

Park Operations

Park operations refer to the ability of the park to adequately protect and preserve vital park resources and to provide for an enjoyable visitor experience. Operational efficiency is influenced not only by park staff, but also by the adequacy of the existing infrastructure used in the day to day operation of the park. Analysis of impacts to park operations must consider (1) employee and visitor health and safety, (2) the park's mission to protect and preserve resources, and (3) existing and needed facilities and infrastructure.

Criteria and Thresholds for Impact Analysis

The thresholds of change for the intensity of an impact to park operations are defined as follows:

- *Negligible impacts:* Park operations are not affected, or the effects are at low levels of detection and do not have an appreciable effect on park operations.
- *Minor impacts:* The effect is detectable and likely short-term, but is of a magnitude that does not have an appreciable effect on park operations. If mitigation is needed to offset adverse effects, it is simple and likely to be successful.
- *Moderate impacts:* The effects are readily apparent, likely long-term, and result in a substantial change in park operations in a manner noticeable to staff and to the public. Mitigation measures are necessary to offset adverse effects and are likely to be successful.
- *Major impacts:* The effects are readily apparent, long-term, and result in a substantial change in park operations in a manner noticeable to staff and the public. Changes are markedly different from existing operations. Extensive mitigation measures are needed to offset adverse effects, and their success is not guaranteed.

Alternative A

Under Alternative A, only the ICC would be constructed. This would shift the dispatch function from the Headquarters site to the Warehouse site. The new facility would provide growth potential of up to 16 dispatch positions and would provide state of the art

communication equipment with backup and redundant links. The area vacated by Dispatch at the Headquarters site would be utilized by the Division of Visitor and Resource Protection. All other office and storage space needs would be accommodated on a case by case basis with temporary or modular structures at the Warehouse site, leaving little or no opportunity to improve staff connectivity, space utilization, and vehicular and pedestrian circulation. Division of staff between two sites would hinder effective communication and collaboration. In addition, lack of consolidation would limit the park's ability to minimize its operational and maintenance costs. Maintenance and upkeep of modular buildings would increase as the structures continue to age. Replacement of structures would occur frequently as modular buildings are not meant to be long-lived. Continued reliance on temporary solutions would prevent the park from implementing environmentally friendly and life-cycle cost effective solutions.

Cumulative Effects: Park operations are already challenged by rapidly increasing prices in materials and services, forcing the park to try to do more with less. In addition, low water conditions have increased planning and maintenance workloads. Large scale projects initiated by outside entities, such as Southern Nevada Water Authority's third intake and the Clean Water Coalition's Systems Conveyance and Operations Program, require the input and coordination of several key members of park staff. Lack of efficiently used space and continued upkeep of inadequate buildings will add cumulatively to the challenges of operating the park.

Conclusion: The effects to park operations are readily apparent and likely to be long-term under this alternative. Mitigating solutions have sufficed but may not be practical in the future. Impacts to park operations are moderate, becoming potentially major over time. Impacts to park operations would not be unacceptable at the present time.

Alternative B

Consolidation of all NPS operations at the warehouse site would eliminate the need for staff to travel between the two sites to interact and conduct business. Staff communication would be improved. The renovation of the warehouse and the construction of new buildings to house all NPS divisions would eliminate the need for the temporary and modular structures, which have short life spans, require extensive upkeep, and are not environmentally friendly or life-cycle cost effective. A master-planned campus would improve space utilization, making it easier to accommodate fluctuating office and storage needs. Under this alternative, the park would retain ownership of the Headquarters building, and thus would still have responsibility for maintenance and upkeep of the building. However, by leasing out the vacated space at the Headquarters site, the park would generate revenue that would cover the cost of administering, maintaining, repairing, or otherwise preserving the property.

Cumulative Effects: There are no cumulative impacts under this alternative. Improved working conditions would benefit park operations.

Conclusion: Alternative B would have major beneficial effects to park operations, in the form of better staff connectivity, enhanced space utilization, reduced maintenance

requirements, and improved life-cycle costs. There are no unacceptable impacts associated with Alternative B.

Alternative C

Consolidating park operations at the Warehouse site and leaving only a public contact station at the Headquarters site would have the same effects to park operations as Alternative B.

Cumulative Effects: There are no cumulative impacts under this alternative. Improved working conditions would benefit park operations.

Conclusion: Alternative C would have major beneficial effects to park operations, in the form of better staff connectivity, enhanced space utilization, reduced maintenance requirements, and improved life-cycle costs. There are no unacceptable impacts associated with Alternative C.

Alternative D

Under this alternative, the warehouse would be renovated and new buildings would be constructed for Visitor and Resource Protection, Administration, Interpretation, and Resource Management. This would eliminate reliance on temporary and modular structures, which would reduce operating and maintenance costs in much the same way as Alternatives B and C. However, with the Superintendent and Concessions offices remaining at the Headquarters site, there would still be a physical disconnection between some staff members, and improvements to communication, collaboration, and coordination would not be as great as under the other action alternatives.

Cumulative Effects: The lack of complete consolidation of park staff at a single location would have minor cumulative impacts on the efficiency of park operations.

Conclusion: Alternative D would have moderate beneficial effects to park operations. Space utilization and life-cycle cost effectiveness would be improved, but some staff would remain disconnected. There are no unacceptable impacts associated with Alternative D.

Cultural Resources

Laws, Regulations, and Policies

Numerous legislative acts, regulations, and NPS policies provide direction for the protection, preservation, and management of cultural resources on public lands. Further, these laws and policies establish what must be considered in general management planning and how cultural resources must be managed in future undertakings resulting from the approved plan regardless of the final alternative chosen. Applicable laws and regulations include the NPS Organic Act (1916), the National Historic Preservation Act of 1966 (1992, as amended), and the National Environmental Policy Act of 1969. Applicable agency policies relevant to cultural resources include Chapter 5 of NPS *Management Policies 2006*, and the *Director's Order 28: Cultural Resource Management Guidelines* (NPS 1998).

The National Historic Preservation Act of 1966 (16 USC 470, et seq.) requires in section 106 that federal agencies with direct or indirect jurisdiction over undertakings take into account the effect of those undertakings on properties that are listed on, or eligible for listing on, the National Register of Historic Places. Section 110 of the act further requires federal land managers to establish programs in consultation with the state historic preservation office to identify, evaluate, and nominate properties to the national register. This act applies to all federal undertakings or projects requiring federal funds or permits.

Impacts on cultural resources were assessed based on existing conditions, current regulations, and likely development trends. The inventory of archaeological resources in the park is largely incomplete. Under Section 106 of the National Historic Preservation Act, only historic resources that are eligible or are listed on the National Register of Historic Places are considered for impacts. For purposes of assessing impacts, all unrecorded resources and unevaluated structures and landscapes are considered potentially eligible for listing on the National Register of Historic Places. An impact to a property occurs if a proposed action would alter in any way the characteristic that qualifies it for inclusion on the register.

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

Criteria and Thresholds for Impact Analysis

For the purposes of this document, the level of impacts to cultural resources was accomplished using the following criteria:

- *Negligible impacts*: No potentially eligible or listed properties are present; there are no direct or indirect impacts. For purposes of Section 106, the determination would be *no effect*.
- *Minor impacts*: Potentially eligible or listed properties are present; there are no direct impacts that diminish the integrity of the property, or impacts with only temporary effects are expected. For purposes of Section 106, the determination would be *no adverse effect*.

- *Moderate impacts:* Potentially eligible or listed properties are present; indirect impacts may occur or, in the case of structures, activity is limited to rehabilitation conducted in a manner that preserves the historical and architectural value of the property. For purposes of Section 106, the determination would be *no adverse effect*.
- *Major impacts:* Potentially eligible or listed properties present; direct impacts include physical destruction, damage, or alteration of all or part of a property. A property is isolated from its setting, or there is alteration of the character of a property's setting when that character contributes to its eligibility. Visual, audible, or atmospheric elements are introduced that are out of character with the property or alter its setting. Neglect of a property results in its deterioration or destruction. For purposes of Section 106, the determination would be *adverse effect*.
- *Impairment:* There is a loss, destruction, or degradation of a cultural property, resource, or value to the point that it negatively affects the park's purpose, and the resource cannot be enjoyed by future generations. For purposes of Section 106, the determination would be *adverse effect*.

Alternative A

Under the No Action Alternative, the Master Plan would not be implemented. Proposed changes to the Headquarters or Warehouse site could not be predicted and would occur on an as-needed basis. All necessary cultural compliance would be initiated at the time an action to one of the two historic sites was proposed.

Cumulative Effects: Cultural resources at Lake Mead NRA, including historic structures, are impacted by natural processes (such as aging and weathering), illegal activities (such as vandalism and looting), and legitimate endeavors (such as construction and development projects). Since the Headquarters and Warehouse buildings are in a controlled setting in which impacts are more easily planned and mitigated for, modifications to the structures would have minor cumulative effects to cultural resources.

Conclusion: Since the Warehouse building is eligible for the National Register of Historic Places, and the Headquarters building is part of a historic district and treated as eligible, and both are on the park's List of Classified Structures, modifications to the structures, if proposed, would constitute moderate impacts, but there would be no unacceptable impacts or impairment to cultural resources.

Alternative B

Under this alternative, NPS would lease out space at the Headquarters site but would retain ownership of the building. As owner, NPS would ensure that the historical integrity of the building was preserved. Removal of non-historic structures at the Headquarters site (i.e. the addition and the annex) would improve the historic integrity of the Headquarters building. Renovations to the Warehouse building would require consultation with the SHPO but would be designed to avoid or minimize adverse impacts.

Cultural compliance would be initiated at the time an action to one of the historic properties was proposed.

Cumulative Effects: Cumulative effects would be the same as those described under Alternative A.

Conclusion: Since the Warehouse building is eligible for the National Register of Historic Places, and the Headquarters building is part of a historic district and treated as eligible, and both are on the park's List of Classified Structures, modifications to the structures would constitute moderate impacts, but there would be no unacceptable impacts or impairment to cultural resources. Removal of non-historic elements of the Headquarters site would be a beneficial effect.

Alternative C

Impacts under Alternative C would be the same as those described under Alternative B.

Cumulative Effects: Cumulative effects would be the same as those described under Alternative A.

Conclusion: Since the Warehouse building is eligible for the National Register of Historic Places, and the Headquarters building is part of a historic district and treated as eligible, and both are on the park's List of Classified Structures, modifications to the structures would constitute moderate impacts, but there would be no unacceptable impacts or impairment to cultural resources. Removal of non-historic elements of the Headquarters site would be a beneficial effect.

Alternative D

Removal of non-historic structures at the Headquarters site (i.e. the addition and the annex) would improve the historic integrity of the Headquarters building. Renovations to the Warehouse building would require consultation with the SHPO but would be designed to avoid or minimize adverse impacts. Cultural compliance would be initiated at the time an action to the historic property was proposed.

Cumulative Effects: Cumulative effects would be the same as those described under Alternative A.

Conclusion: Since the Warehouse building is eligible for the National Register of Historic Places, and the Headquarters building is part of a historic district and treated as eligible, and both are on the park's List of Classified Structures, modifications to the structures would constitute moderate impacts, but there would be no impairment to cultural resources. Removal of non-historic elements of the Headquarters site would be a beneficial effect.

Safety, Visitor Use and Experience

NPS *Management Policies 2006* states that the enjoyment of the park's resources is part of the fundamental purpose of all parks and that the NPS is committed to providing appropriate, high-quality opportunities for visitor enjoyment.

Part of the purpose of Lake Mead NRA is to offer opportunities for recreation, education, inspiration, and enjoyment. Consequently, one of the park's management goals is to ensure that visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of the park's facilities, services, and recreational opportunities.

Public scoping input and observation of visitation patterns, combined with an assessment of what is available to visitors under current management, were used to estimate the effects of the actions in the various alternatives of this document. The impact on the ability of the visitor to safely experience a full range of Lake Mead NRA resources was analyzed by examining resources and objectives presented in the park's significance statement.

The potential for change in visitor experience proposed by the alternatives was evaluated by identifying projected increases or decreases in use of the areas impacted by the proposal, and determining how these projected changes would affect the desired visitor experience. The impact assessment for safety focused on the number of potential individuals impacted and the severity of the impact.

Criteria and Thresholds for Impact Analysis

The thresholds of change for the intensity of an impact to safety, visitor use and experience are defined as follows:

- *Negligible impacts:* Safety would not be affected, or the effects are at low levels of detection and do not have an appreciable effect on visitor or employee health and safety. The visitor is not affected, or changes in visitor use and experience are below or at the level of detection. The visitor is not likely be aware of the effects associated with the alternative.
- *Minor impacts:* The effect is detectable, but does not have an appreciable effect on health and safety. Changes in visitor use and experience are detectable, although the changes would be slight. Some visitors are aware of the effects associated with the alternative, but the effects are slight and not noticeable by most visitors.
- *Moderate impacts:* The effects are readily apparent and result in substantial, noticeable effects to health and safety on a local scale. Changes in visitor use and experience are readily apparent to most visitors. Visitors are aware of the effects associated with the alternative and might express an opinion about the changes.

- *Major impacts:* The effects are readily apparent and result in substantial, noticeable effects to health and safety on a regional scale. Changes in visitor use and experience are readily apparent to all visitors. Visitors are aware of the effects associated with the alternative and are likely to express a strong opinion about the changes.

Alternative A

Under the No Action Alternative, only the ICC would be constructed. Bond payments, which are currently made at the Dispatch Center at the Headquarters site, would now be made at the ICC at the Warehouse site. Since all other NPS functions would remain at their current locations, there would be no other effects to visitors or the public.

Cumulative Effects: At the present time, visitor experience is currently impacted by the declining lake level, which has resulted in altered boat launching opportunities, ongoing launch ramp extensions, and even the relocation of three marinas. Changes to operations are detailed in the Low Water Amendment to the park's General Management Plan. The Lake Management Plan (2002) established new management policies for water-based recreation and was of substantial interest to park visitors. A Wilderness Management Plan, currently in development, will set guidelines for visitor use of the park's wilderness areas. In light of these larger management issues, the small administrative change in the collection of bond payments is a negligible cumulative impact.

Conclusion: Only a small subset of park visitors will be aware of the change, and there will be no effect to health or safety, so the impact to visitor use and experience is minor. There are no unacceptable impacts associated with Alternative A.

Alternative B

Under this alternative, all NPS operations would be consolidated at the Warehouse site. The Headquarters site would not be occupied by any NPS personnel, and all visitors needing to do business with the NPS would be redirected to the Warehouse site approximately one mile away. The impact may not affect those who use the park purely for recreational purposes, but would affect those who need to meet with management personnel, obtain information about the park, make bond payments, or make inquiries with Human Resources.

Cumulative Effects: Cumulative effects to visitor use and experience are detailed under Alternative A. Since visitor use of the administrative sites is negligible relative to recreational use of the park itself, implementation of this alternative would have negligible cumulative effects to visitor use and experience.

Conclusion: Since the changes associated with this alternative affect only the administrative sites, and not the park itself, many visitors may not be aware of the change. For those visitors that access the administrative offices, the new location is approximately one mile away. Therefore, the impact is considered minor. There are no unacceptable impacts associated with Alternative B.

Alternative C

Under this alternative, NPS would retain a public contact station at the Headquarters site, but all other operations would be relocated to the Warehouse site. Members of the public wishing to obtain information about the park would still be able to do so at the Headquarters site. Other visitors, such as those wishing to meet with management personnel, make bond payments, or make inquiries with Human Resources, would be redirected to the Warehouse site. Since this alternative maintains a key administrative function at the Headquarters site, there are fewer impacts to visitors than under Alternative B.

Cumulative Effects: Cumulative effects to visitor use and experience are detailed under Alternative A. Since visitor use of the administrative sites is negligible relative to recreational use of the park itself, implementation of this alternative would have negligible cumulative effects to visitor use and experience.

Conclusion: Since the changes associated with this alternative affect only the administrative sites, and not the park itself, many visitors may not be aware of the change. For those visitors that access the administrative offices, the new location is approximately one mile away, and public contact will still be available at the downtown site. Therefore, the impact is considered minor. There are no unacceptable impacts associated with Alternative C.

Alternative D

Under this alternative, NPS would retain the Superintendent and Concessions Management offices at the Headquarters site, as well as a public contact function. Depending on the type of business being done by the visitors, they may or may not be redirected to the Warehouse site. Among the action alternatives, this alternative retains the most administrative function at the Headquarters site, and thus has less impact to visitors than Alternatives B and C.

Cumulative Effects: Cumulative effects to visitor use and experience are detailed under Alternative A. Since visitor use of the administrative sites is negligible relative to recreational use of the park itself, implementation of this alternative would have negligible cumulative effects to visitor use and experience.

Conclusion: Since the changes associated with this alternative affect only the administrative sites, and not the park itself, many visitors may not be aware of the change. For those visitors that access the administrative offices, the new location is approximately one mile away. Therefore, the impact is considered minor. There are no unacceptable impacts associated with Alternative D.

Water Resources and Water Quality

Laws, Regulations, and Policies

The Clean Water Act, and supporting criteria and standards promulgated by the Environmental Protection Agency, the Nevada Department of Environmental Protection, and the Arizona Department of Environmental Quality are used at Lake Mead NRA to

protect the beneficial uses of water quality, including human health, health of the aquatic ecosystem, and recreational use.

Water quality in Lake Mead in Nevada is regulated by the Nevada Division of Environmental Protection under water quality standards and regulations that are promulgated in the Nevada Administrative Code (Chapter 445A.118-445A.225). Consistent with federal regulations, Nevada has established numerical and narrative standards that protect existing and designated uses of the State's waters, and implements the anti-degradation requirements by establishing "requirements to maintain existing higher quality." Compliance with the numerical standards for water quality is determined at control points that are specified in the regulations.

Criteria and Thresholds for Impact Analysis

The following impact thresholds were established to describe the relative changes in water quality (localized, short-term, long-term, cumulative, adverse, and beneficial), under the various alternatives, when compared to baseline conditions.

- *Negligible impacts:* Impacts are effects that are not detectable, well below water quality standards and/or historical ambient or desired water quality conditions.
- *Minor impacts:* Impacts are effects that are detectable but well within or below water quality standards and/or historical ambient or desired water quality conditions.
- *Moderate impacts:* Impacts are effects that are detectable, within or below water quality standards, but historical baseline or desired water quality conditions are being altered on a short-term basis.
- *Major impacts:* Impacts are effects that are detectable, and significantly and persistently alter historical baseline or desired water quality conditions. Water quality standards are locally approached, equaled, or slightly singularly exceeded on a short-term and temporary basis.
- *Impairment:* Impacts are effects that alter baseline or desired water quality conditions on a long-term basis. Water quality standards are exceeded several times on a short or long-term basis and may be temporary or permanent.

Alternative A

Under the No Action Alternative, only the ICC would be constructed. Best Management Practices for controlling nonpoint pollution during construction activities would be implemented and would help control any sedimentation and erosion that may occur during small storm events, resulting in short-term, minor, adverse impacts on water resources. The Headquarters site may be re-landscaped to a more water-friendly xeriscape, and would reduce current water usage.

Cumulative Effects: Alternative A would have no cumulative effects on water resources.

Conclusion: Depending on the extent to which storm events occurred during construction of the ICC, short-term, adverse, minor impacts on water resources from increased erosion, sedimentation, and run-off would range from negligible to minor. Minor, beneficial effects to water resources could result from xeriscaping the Headquarters site. There would be no unacceptable impacts or impairment to water resources under Alternative A.

Alternative B

Under this alternative, the NPS would lease the Headquarters building to non-NPS organizations. All NPS operations would be consolidated at the Warehouse site, and several new facilities would be constructed in phases. Construction activities at the Headquarters site would include removal of the Annex and Headquarters Addition, and expansion of the parking lot. The Headquarters and Warehouse sites are located within Boulder City which has the infrastructure to channel stormwater to flood control areas should a large rain event occur during construction activities. Best Management Practices for controlling nonpoint pollution during construction activities would be implemented and would help control any sedimentation and erosion that may occur during small storm events.

As buildings are phased in at the Warehouse site, existing modular buildings would be removed, thus there would be no remarkable increase in impervious surfaces from new buildings. The Warehouse site would eventually be paved which could increase impervious surfaces, but responsible site design would minimize run-off issues. Xeriscaping the site with native vegetation would reduce impacts to water resources. Renovations to the Warehouse and facilities in the new buildings would include water conservation features such as low flow toilets, thus reducing current water usage.

The parking lot at the Headquarters site would be expanded after removal of the Annex building and Headquarters Addition. The parking lot would replace the existing buildings and would not increase the net amount of impervious surfaces at the site. The Headquarters site may be re-landscaped to a more water-friendly xeriscape, and would reduce current water usage.

Cumulative Effects: In southern Nevada, water quality is affected by urban growth, which can potentially increase erosion, effluent, contamination, and surface run-off. In addition, drought conditions in the west have significantly lowered the water level of Lake Mead, changing its mixing patterns and reducing storage volume. In light of the larger, regional issues, Alternative B would not appreciably add to the cumulative effects on water resources.

Conclusion: Depending on the extent to which storm events occurred during construction activities, short-term, adverse impacts on water quality from increased erosion, sedimentation, and run-off would range from negligible to minor. Long-term, minor, beneficial effects from xeriscaping and water conservation features in new

buildings would reduce current water usage. The potential replacement of turf with native xeriscape at the Headquarters site would have long-term, minor, beneficial effects on water resources. There would be no unacceptable impacts or impairment to water resources under Alternative B.

Alternative C

Under this alternative, most NPS facilities would be consolidated at the Warehouse site, although a public contact station would be maintained at the Headquarters site. At the Warehouse site, a new maintenance complex, the ICC, and new shop and storage space would be constructed in phases. Construction activities at the Headquarters site would include removal of the Annex and the Headquarters Addition, and expansion of the parking lot. This alternative would have impacts to water resources similar to those described under Alternative B.

Cumulative Effects: There would be no appreciable cumulative effects from Alternative C for reasons detailed under Alternative B.

Conclusion: Depending on the extent to which storm events occurred during construction activities at the Headquarters and Warehouse sites, short-term, adverse impacts on water quality from increased erosion, sedimentation, and run-off would range from negligible to minor. Long-term, minor, beneficial effects from xeriscaping and water conservation features in new buildings would reduce current water usage. The potential replacement of turf with native xeriscape at the Headquarters site would have long-term, minor, beneficial effects on water resources. There would be no unacceptable impacts or impairment to water resources under Alternative C.

Alternative D

Under this alternative, most NPS operations would be consolidated at the Warehouse site, requiring construction of several new facilities at that location. A new complex for the Resource Management, Interpretation, Administration, and Visitor and Resource Protection would be constructed, as would the ICC and additional storage, shop space, and parking. Construction activities at the Headquarters site would include removal of the Annex and Headquarters Addition, and expansion of the parking lot. The Headquarters site, which would continue to house Superintendent and Concession offices, may be re-landscaped to a more water-friendly xeriscape. This alternative would have impacts to water resources similar to those described under Alternative B.

Cumulative Effects: There would be no appreciable cumulative effects from Alternative D for reasons detailed under Alternative B.

Conclusion: Depending on the extent to which storm events occurred during construction activities at the Headquarters and Warehouse sites, short-term, adverse impacts on water quality from increased erosion, sedimentation, and run-off would range from negligible to minor. Long-term, minor, beneficial effects from xeriscaping and water conservation features in new buildings would reduce current water usage. The potential replacement of turf with native xeriscape at the Headquarters site would have

long-term, minor, beneficial effects on water resources. There would be no unacceptable impacts or impairment to water resources under Alternative D.

Soils and Vegetation

Laws, Regulations, and Policies

Soil resources would be protected by preventing or minimizing adverse potentially irreversible impacts on soils, in accordance with NPS *Management Policies 2006*. NPS-77 specifies objectives for each management zone for soil resources management. These management objectives are defined as: (1) natural zone: preserve natural soils and the processes of soil genesis in a condition undisturbed by humans; (2) cultural zone: conserve soil resources to the extent possible consistent with maintenance of the historic and cultural scene and prevent soil erosion wherever possible; (3) park development zone: ensure that developments and their management are consistent with soil limitations and soil conservation practices; and, (4) special use zone: minimize soil loss and disturbance caused by special use activities, and ensure that soils retain their productivity and potential for reclamation.

Zones within the recreation area have been designated in the Lake Mead NRA General Management Plan, which provides the overall guidance and management direction for Lake Mead NRA.

The NPS Organic Act directs the park to conserve the scenery and the natural objects unimpaired for future generations. NPS *Management Policies 2006* defines the general principles for managing biological resources as maintaining all native plants and animals as part of the natural ecosystem. When NPS management actions cause native vegetation to be removed, the NPS will seek to ensure that such removals will not cause unacceptable impacts to native resources, natural processes, or other park resources.

Exotic species, also referred to as non-native or alien, are not a natural component of the ecosystem. They are managed, up to and including eradication, under the criteria specified in NPS *Management Policies 2006* and NPS-77.

Criteria and Thresholds for Impact Analysis

The following impact thresholds were established for impacts to soils and vegetation.

- *Negligible impacts*: Impacts have no measurable or perceptible changes in soil structure or plant community size, integrity, or continuity. Impacts occur in a relatively small area.
- *Minor impacts*: Impacts are measurable or perceptible, but localized in a relatively small area. The overall soil structure and viability of the plant community is not affected.
- *Moderate impacts*: Impacts are localized and small in size but cause a permanent change in the area's soil structure or plant community (e.g. plant diversity, abundance, or distribution).

- *Major impacts:* Impacts to the soil structure or plant community are substantial, highly noticeable, and permanent.
- *Impairment:* For this analysis, impairment is considered a permanent change in soils and vegetation in a large portion of the park, affecting the resource over the long-term to the point that the park's purpose cannot be fulfilled, and resource degradation precludes the enjoyment of future generations.

Alternative A

Under the No Action Alternative, no new permanent facilities, other than the ICC, would be constructed at the Warehouse site. Additional office and storage space, when needed, would be in the form of temporary or modular structures which would not permanently alter the soil in the area. Additional landscaping at the site would be unlikely but, if undertaken, would utilize native, water-efficient vegetation. The Headquarters site, which would remain in use by NPS, may be re-landscaped to replace the turf with a more environmentally friendly xeriscape.

Cumulative Effects: Since the Headquarters and Warehouse sites are already disturbed, there are no cumulative effects to soils and vegetation associated with the No Action Alternative.

Conclusion: Effects to soils would be negligible under this alternative. The potential replacement of turf with native xeriscape would have minor beneficial environmental effects. There would be no unacceptable impacts or impairment to soils and vegetation under the No Action Alternative.

Alternative B

Under this alternative, all NPS operations would be consolidated at the Warehouse site, requiring construction of several new facilities at that location. A new complex for the Superintendent, Resource Management, Interpretation, Administration, and Visitor and Resource Protection would be constructed, as would the ICC and additional storage, shop space, and parking. Construction of the new facilities would permanently alter the site's soil. Landscaping at the Warehouse site would utilize native vegetation. The Headquarters site, which would be leased to other entities by NPS, may be re-landscaped to a more water-friendly xeriscape.

Cumulative Effects: Although new facilities result in the permanent alteration of soil, the office complex is not within the park boundary and, due to its disturbed nature, does not provide viable natural habitat, so cumulative effects to soils and vegetation are negligible under this alternative.

Conclusion: Changes to soil and vegetation would be localized in administrative areas outside the park boundary, and overall soil structure and viability of plant communities are not affected, so the impacts would be minor. There would be no unacceptable impacts or impairment to soils and vegetation under Alternative B.

Alternative C

Under this alternative, most NPS facilities would be consolidated at the Warehouse site, although a public contact station would be maintained at the Headquarters site. A new maintenance complex, the ICC, and new shop and storage space would be constructed, permanently altering the soil. New landscaped green areas, utilizing native vegetation, would be developed to provide a continuous pedestrian link to all buildings and divisions. The Headquarters site, which would remain in NPS ownership, may be re-landscaped to a more water-friendly xeriscape.

Cumulative Effects: Cumulative effects are the same as those under Alternative B.

Conclusion: Changes to soil and vegetation would be localized in administrative areas outside the park boundary, and overall soil structure and viability of plant communities are not affected, so the impacts would be minor. There would be no unacceptable impacts or impairment to soils and vegetation under the Alternative C.

Alternative D

Under this alternative, most NPS operations would be consolidated at the Warehouse site, requiring construction of several new facilities at that location. A new complex for Resource Management, Interpretation, Administration, and Visitor and Resource Protection would be constructed, as would the ICC and additional storage, shop space, and parking. Construction of the new facilities would permanently alter the site's soil. Landscaping at the Warehouse site would utilize native vegetation. The Headquarters site, which would continue to house Superintendent and Concessions offices, may be re-landscaped to a more water-friendly xeriscape.

Cumulative Effects: Cumulative effects are the same as those under Alternative B.

Conclusion: Changes to soil and vegetation would be localized in administrative areas outside the park boundary, and overall soil structure and viability of plant communities are not affected, so the impacts would be minor. There would be no unacceptable impacts or impairment to soils and vegetation under Alternative D.

Adjacent Lands

Criteria and Thresholds for Impact Analysis

Impacts to adjacent lands were analyzed using the best available information and best professional judgment of park staff. Terms referring to impact intensity are used in the effects analysis and defined as follows:

- *Negligible impacts:* The impact is at the lower level of detection; there would be no measurable change.
- *Minor impacts:* The impact is slight but detectable; there would be a small change.

- *Moderate impacts:* The effect is readily apparent; there would be a measurable impact that could result in a small but permanent change.
- *Major impacts:* The impact is severe; there would be a highly noticeable, permanent measurable change.

Alternative A

Under the No Action Alternative, only the ICC would be constructed. Other NPS administrative functions would remain at their current location. Temporary structures may be erected at the Warehouse site as space allows. There would be no impacts to adjacent lands at the Headquarters site. At the Warehouse site, construction-related impacts of the ICC would include noise, dust generated by ground disturbance, exhaust from equipment, and construction traffic. Similar impacts may occur on a smaller scale from occasional installations of temporary structures. These impacts are likely to be seen and heard by occupants of the residential areas surrounding the Warehouse site. However, the impacts would be temporary, during construction only. There would be no change in land use at either of the NPS sites.

Cumulative Effects: Residents of Boulder City experience large traffic volumes due to tourism and to its location as a gateway to Arizona. Construction of the Hoover Dam bridge has been ongoing for several years. A new transportation corridor, the Boulder City Bypass, is in the planning stages. Road projects are common throughout the area. Construction of the Southern Nevada Water Authority's third intake and the Systems Conveyance and Operations Program is scheduled to occur from 2008 to 2012. Given the impacts to air, noise, and traffic that will result from these projects, the No Action Alternative will have negligible cumulative impacts to adjacent lands.

Conclusion: The No Action Alternative would have negligible impacts to adjacent lands.

Alternative B

Consolidation of NPS operations at the Warehouse site and leasing out of the Headquarters site would have detectable effects to adjacent lands. Construction of the new facilities would have air, noise, and traffic impacts at the Warehouse site that would be noticed by nearby residents. However, new facilities would be constructed in phases, reducing the level of impact at any given time. Once complete, all NPS employees would work out of the Warehouse site, resulting in an increase in daily traffic to the area but not one that is likely to be noticeable given the volume of traffic on the highway used to access the site. There would be no change in land use at the Warehouse site as it is and would remain an administrative NPS area. The visual improvement of the area that would result from improved spatial organization and the establishment of more structurally and environmentally sound buildings would be a beneficial effect to nearby occupants.

Removal of the Headquarters Annex would create temporary impacts (including traffic and air and sound impacts) at the Headquarters site. Future use of the Headquarters building is not known at this time and would depend on the lessees, but could include the

park's cooperating agencies or other organizations compatible with both the NPS and the community. The site is part of downtown Boulder City and is located in an area that contains both residences and a variety of businesses, so it is unlikely that the change in occupancy of the building would have a noticeable effect on the area's activity.

Cumulative Effects: Although this alternative involves more construction than No Action, cumulative effects to adjacent lands remain negligible.

Conclusion: Alternative B would have temporary minor effects to adjacent lands during construction and moderate beneficial effects once fully implemented.

Alternative C

Under this alternative, NPS would maintain a public contact station at the Headquarters site, the rest of the building would be leased out, and new buildings would be constructed at the Warehouse site. Therefore, impacts to adjacent lands are the same as those under Alternative B.

Cumulative Effects: Cumulative effects would be the same as under Alternative B.

Conclusion: Alternative C would have temporary minor effects to adjacent lands during construction and moderate beneficial effects once fully implemented.

Alternative D

Under this alternative, NPS would continue to occupy the Headquarters site with Superintendent and Concession offices. Unlike Alternatives B and C, the site would retain its NPS administrative use, so there would be no effect to adjacent lands at this site. Construction-related impacts at the Warehouse site would be the same as those described under Alternative B.

Cumulative Effects: Cumulative effects would be the same as under Alternative B.

Conclusion: Alternative D would have temporary minor effects to adjacent lands during construction and moderate beneficial effects once fully implemented.

SECTION V: COORDINATION AND CONSULTATION

A 30-day public scoping period occurred from December 12, 2007 through January 18, 2008, through a press release (Appendix A). The scoping press release was issued to area media, and was posted on the Lake Mead NRA internet website and on the NPS Planning, Environment, and Public Comment (PEPC) internet website. The scoping press release was sent to television stations, newspapers, magazines, and radio stations in Las Vegas, Henderson, Boulder City, Pahrump, Overton, Logandale, Laughlin, Nevada; Meadview, Kingman, Phoenix, and Bullhead City, Arizona; and Needles, and Los Angeles, CA. One comment was received in support of an alternative that retains the NPS presence in downtown Boulder City.

A press release announcing a 30-day public review period for the environmental assessment is sent to various federal and state agencies, individuals, businesses, and organizations on the park's mailing list. The press release is also posted at the Alan Bible Visitor Center. Notification is also published on the Lake Mead NRA website (<http://www.nps.gov/lame>) and on the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov>.

Lake Mead NRA's mailing list is comprised of 166 federal and state agencies, individuals, businesses, and organizations. The environmental assessment will be distributed to those individuals, agencies, and organizations likely to have an interest in this project. Entities on the park mailing list that do not receive a copy of the environmental assessment will receive a letter notifying them of its availability and methods of accessing the document. Copies of the environmental assessment are available at area libraries, including: Boulder City Library, Clark County Community College (North Las Vegas), Clark County Library, Las Vegas Public Library, Mohave County Library (Kingman, AZ), Sunrise Public Library (Las Vegas), University of Arizona Library (Tucson, AZ), University of Nevada- Las Vegas James R. Dickinson Library, Meadview Community Library, Moapa Valley Library (Overton, NV), Mesquite Library, Mohave County Library (Lake Havasu City, AZ), Laughlin Library, Searchlight Library, and Washington County Library (St. George, UT). Comments on this document will be accepted during the 30-day review period.

Individuals and organizations can request the environmental assessment in writing, by phone, or by e-mail. Requests should be directed to:

National Park Service, Lake Mead NRA
Attention: Compliance Office
601 Nevada Way
Boulder City, Nevada 89005
Telephone: (702) 293-8956

SECTION VI: LIST OF PREPARERS AND CONTRIBUTORS

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SECTION VII: REFERENCES

Federal Regulation, Order, Law

All U.S. Public Laws, Codes, Federal Regulations, and Statutes can be found at the Office of the Federal Register, U.S. Government Printing Office, Washington, DC. Many can be found on the Internet at <http://www.gpo.gov>.

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APPENDIX A- PUBLIC SCOPING PRESS RELEASE



National Park Service
U.S. Department of the Interior

Lake Mead National
Recreation Area

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Lake Mead National Recreation Area News Release

For Immediate Release: December 12, 2007
Roxanne Dey - 702.293.8691

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Master Plan and Environmental Assessment Being Prepared for the NPS Headquarters and Warehouse Sites

The National Park Service (NPS) is in the process of preparing a Master Plan for the NPS Headquarters and Warehouse sites for Lake Mead National Recreation Area in Boulder City, Nevada. The purpose of the plan is to resolve space deficiencies and organizational inefficiencies. Currently, NPS staff stationed in Boulder City are dispersed between numerous facilities at different locations. Some of these facilities are portable modular units, and some are historic buildings.

In May 2006, the NPS contracted an architectural firm to develop a Space Utilization and Value Analysis Study for the Headquarters and Warehouse sites. The study included alternatives that consider utilization of both the Headquarters and Warehouse sites and an alternative that considers complete consolidation of all NPS programs at the Warehouse site. Once completed, the Master Plan would provide comprehensive guidance for long-term, sustainable development of the NPS Headquarters and Warehouse sites and allow for more efficient park operations. Aspects of the project would occur in phases as funding becomes available. Funding is available for the first phase of the project, which proposes the construction of an Interagency Communications Center within the Warehouse site.

An environmental assessment will be prepared to evaluate the alternatives identified in the space utilization and value analysis study and to identify other potential alternatives, including no action. Officials at Lake Mead National Recreation Area encourage input from the public on alternatives and potential issues and impacts that should be addressed in the environmental assessment. Written comments, which must be mailed by January 18, 2008, should be addressed to: Superintendent, Lake Mead National Recreation Area, Attn: Compliance Office, 601 Nevada Way, Boulder City, Nevada 89005. Comments may also be submitted via the internet at <http://parkplanning.nps.gov/>.

-NPS-

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