FINDING OF NO SIGNIFICANT IMPACT
FOR THE
RENOVATION OF THE LAKE MEAD FISH HATCHERY
NEVADA DIVISION OF WILDLIFE AND THE
NATIONAL PARK SERVICE
CLARK COUNTY, NEVADA
LAKE MEAD NATIONAL RECREATION AREA

INTRODUCTION

The National Park Service (NPS), Lake Mead National Recreation Area (NRA), has prepared an environmental assessment (EA) that evaluates the no-action and one action alternative for renovation of the fish hatchery, within the Boulder Basin developed area of Lake Mead, Nevada. The EA analyzes the various environmental and public health and safety impacts related to each alternative.

Lake Mead NRA is located in southeastern Nevada and northwestern Arizona. The Lake Mead Fish Hatchery is located on the western shore of Lake Mead on Lakeshore Scenic Drive. The overall project area is located in the Boulder Basin development zone, as designated in the Lake Mead NRA *General Management Plan*, 1986.

PURPOSE AND NEED

The purpose of the project is to upgrade the entire fish production facility and incorporate educational opportunities for groups and the general public. Three additional housing units are included in the proposal and the project will require an additional 7.46 acres added to the National Park Service (NPS) lease area. The project also requires the construction of a 7,950-foot, 3-inch waterline to connect the Lake Mead Fish Hatchery (Hatchery) with the Alfred Merritt Smith Water Treatment Plant.

Fish production will be enhanced at the Hatchery by replacing the majority of the infrastructure and facilities. The hard water from Lake Mead has severely corroded all steel piping and valves at this facility since it was constructed in 1972. The Hatchery lacks adequate water treatment facilities thus all drinking water is purchased as bottled water. The hatchery building, including the staff room, incubation room, shop and visitor center are in poor condition and inadequate. The staff room is also the location for stored chemicals, which can lead to unsafe conditions.

The outdoor ponds are deteriorating and asphalt around the entire facility is degraded. The roofing is damaged on the residences and the hatchery building. Predatory birds (mostly herons and egrets) have free access to the ponds and feed on the rearing trout and peck at the roofing insulation. The settling ponds for treating water are minimally effective, giving rise to concerns about the ability, in the future, to meet the Department of Environmental Protection water quality standards for return to Lake Mead.

The additional uses of the hatchery facility include the storage of law enforcement boats, the storage of equipment by the regional biologist and the use of a small area for the rearing of razorback suckers and bonytail chub as part of the native fish species program.

Relocation of the native fish species would reduce the concern of fish disease from transfer and cross contamination.

The Hatchery is currently connected to the Basic Management Inc. (BMI) waterline that supplies untreated lake water. This water is aerated at the head of the hatchery, and then used in both Hatchery operations as well as domestic non-potable water for the Hatchery and employee residences. It is desirable for health and safety concerns to replace the aerated water domestic supply with treated potable water. The estimated cost of all the improvements for this facility is $8.3 million.

ALTERNATIVES CONSIDERED

The alternatives analyzed included: Alternative A: No action alternative, no facility renovation; and Alternative B: renovation of the fish hatchery (management- and environmentally-preferred alternative).

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 B is the environmentally preferable alternative because overall it would best meet the requirements in Section 101 of NEPA. Alternative B would ensure safe, healthful, and aesthetically and culturally pleasing surroundings by allowing the renovations of the Hatchery. Renovating the Hatchery would improve visitor services, and provide a healthful and safe environment for visitors and Hatchery employees. It would improve operations efficiency and sustainability. It would prevent the loss of

natural resources and protect important aspects of the recreation area, including the water quality of Lake Mead.

MITIGATION AND MONITORING METHODS

Mitigation measures are specific actions designed to minimize, reduce, or eliminate impacts of alternatives and to protect Lake Mead NRA resources and visitors. Monitoring activities are actions to be implemented during or following construction. The following mitigation related to renovating the Hatchery will be implemented under the selected alternative, and are assumed in the analysis of effects for this alternative.

Soils and Vegetation

NDOW (Nevada Division of Wildlife) will remove all non-native species from the leased area and revegetate the leased area with native species provided by the Lake Mead NRA nursery, in coordination with NPS restoration specialists. Areas near construction sites and disturbed sites will be landscaped and revegetated with native species.

NDOW will work with the NPS to follow the procedures for collecting and propagating native species, salvaging topsoil, site grading and soil preparation, erosion control, vegetation reestablishment, and post-construction monitoring for non-native species.

To prevent the introduction of, and minimize the spread of non-native plant species, the following measure will be implemented prior to construction:

- All construction equipment will be pressure washed or steam cleaned prior to entering the recreation area;
- Minimize soil disturbance;
- Limit vehicle parking to existing roadways, parking lots, or the access route;
- Obtain all fill, rock, or additional topsoil from the project area;
- Initiate revegetation of disturbed sites immediately following construction activities;
- Monitor disturbed areas for up to three years following the construction to identify growth of noxious weeds or non-native vegetation (NPS biologists);
- Salvage and store desert soils and replace them as close as possible to their original locations;
- Clean all rip-rap prior to transporting into the recreation area.

Threatened and Endangered Species

There are no threatened, endangered, or sensitive species at the project site (Boyles 2002). No mitigation is required.

Air Quality

Dust abatement measure will be utilized during construction activities.

Scenic Quality

The facility will be located and designed to meet the architectural theme of the recreation area and minimize visual intrusion on the landscape. The site will be screened from the

view of lake users by an earthen berm and landscaping under the coordination of the NPS.

Cultural Resources

A 140-acre block was inventoried around the fish hatchery (Gushue 2003). No cultural resources were located within the APE for this project. The pipeline from the water treatment facility to the fish hatchery will be installed in previously disturbed road shoulders and will have no effect on cultural resources.

Government to government consultation with Native American Tribes has been conducted to identify any issues and areas of concern the Native Americans may have relating to the project area.

Should unknown cultural resources be uncovered during construction, work will be halted in the discovery area, the site will be secured, and the recreation area will consult according to 36 CFR 800.13 and, as appropriate, provisions of the Native American Graves Protection and Repatriation Act of 1990. In compliance with the Native American Graves Protection and Repatriation Act of 1990, the NPS will also notify and consult concerned tribal representatives for the proper treatment of human remains, funerary objects, and sacred objects should these be discovered during the course of the project.

Visitor Use

Whenever possible, NDOW will adjust its work schedules, particularly the timing of construction activities, to minimize impacts to park visitors. Facility construction will be prioritized and phased wherever possible to minimize disruption of park operations and visitor use.

Safety

The construction zone will be fenced and visitors will be prohibited from entering the area. Traffic will be directed around the area to avoid conflict with construction equipment and on-site personnel. Chemicals used in the operation of the Hatchery will be properly stored and handled in compliance with all state and federal standards.

The following matrix summarizes the mitigation measures required for the selected alternative.

Impact Topic	Mitigation Required under the Preferred Alternative (Alternative B)	Responsible Party
Soils and Vegetation	Remove all non-native species from the leased area and revegetate the leased area with native species. Landscape and revegetate areas near construction sites and disturbed sites with native species. Follow procedures for collecting and propagating native species, salvaging topsoil, site grading and soil preparation, erosion control, vegetation reestablishment, and post-	NDOW and NPS Resource Management Specialist (Restoration)

Impact Topic	Mitigation Required under the Preferred Alternative (Alternative B)	Responsible Party
	construction monitoring for non-native species. To prevent the introduction of, and minimize the spread of non-native plant species, the following measures will be implemented prior to construction: • All construction equipment will be pressure washed or steam cleaned prior to entering the recreation area; • Minimize soil disturbance; • Limit vehicle parking to existing roadways, parking lots, or the access route; • Obtain all fill, rock, or additional topsoil from the project area; • Initiate revegetation of disturbed areas for up to three years following the construction to identify growth of noxious weeds or non-native vegetation (NPS biologists); • Salvage and store desert soils and replace them as close as possible to their original locations; • Clean rip-rap prior to transporting into the recreation area.	
Air Quality	Dust abatement measures will be utilized during construction activities.	Project Manager
Scenic Quality	The facility will be located and designed to meet the architectural theme of the recreation area and minimize visual intrusion on the landscape. The site will be screened from the view of lake users by an earthen berm and landscaping.	Project Manager
Cultural Resources	The pipeline from the water treatment facility to the fish hatchery will be installed in previously disturbed road shoulders and will have no effect on cultural resources. Government to government consultation with Native American Tribes has been conducted to identify any issues and areas of concern the Native Americans may have relating to the project area. Should unknown cultural resources are uncovered during construction, work will be halted in the discovery area, the site will be secured, and the recreation area will consult according to 36 CFR 800.13 and, as appropriate, provisions of the Native American Graves Protection and Repatriation Act of 1990. The NPS will notify and consult concerned tribal representatives for the proper treatment of human remains, funerary objects, and sacred objects should these be discovered during the course of the project.	Cultural Resource Specialist

Impact Topic	Mitigation Required under the Preferred Alternative (Alternative B)	Responsible Party
Visitor Use	Whenever possible, NDOW will adjust its work schedules, particularly the timing of construction activities, to minimize its impact to park visitors. Facility construction will be prioritized and phased wherever possible to minimize disruption of park operations and visitor use.	NDOW and Project Manager
Safety	The construction zone will be fenced and visitors will be prohibited from entering the area. Traffic will be directed around the area to avoid conflict with construction equipment and on-site personnel. Chemicals used in the operation of the Hatchery will be properly stored and handled in compliance with all state and federal standards.	NDOW and Project Manager

ENVIRONMENTAL CONSEQUENCES OF THE PREFERRED ALTERNATIVE
Following the implementation of the mitigation and monitoring measures, the environmental consequences of implementing the preferred alternative are as follows:

Soils and Vegetation
An area of 24.55 acres will be permanently disturbed due to construction activities. This is an addition of 7.46 acres to the area already occupied by fish hatchery operations and facilities. Although the majority of the new acreage is comprised of bare ground with some annual plants, there will be some shrubs removed, including creosote, brittlebush, sweetbush, and catclaw. All non-native plants, such as salt cedar and oleander, will be removed from the facility. The area not occupied by the hatchery structures and residential units will be landscaped with native vegetation or plants consistent with the Lake Mead NRA vegetation management plan.

An additional 1.8 acres will be altered in the construction of a 7,950-foot waterline connecting the Hatchery with the Alfred Merritt Smith Water Treatment Plant. This area was recently disturbed and rehabilitated as part of the reconstruction of Lakeshore Drive. The impact of road construction was addressed in the Final Environmental Impact Statement for the Reconstruction of Lakeshore Drive (1993).

Even with mitigation, non-native plants could occupy the disturbance areas. This could lead to a temporary or permanent change in the plant community, depending on the success of monitoring and control measures. It will be initially localized in the areas of disturbance, but could spread to other adjacent areas, particularly if there is a water source present.

Cumulative Effects: The Boulder Beach developed zone has been heavily impacted by the development of facilities. The purpose of the developed zones is to provide facilities that support visitor use. The Lake Mead Fish Hatchery is consistent with this zoning use. Developed zones throughout the recreation area have impacted approximately 800 acres of the recreation area's 1.3 million terrestrial acres. The project area is located within a developed zone and will account for 24.55 acres of impact to the recreation area. The

waterline will add an additional two acres that will be re-disturbed as part of this project.

Conclusion: Approximately 26.5 acres have been disturbed due to the existing hatchery operation and 7.46 additional acres of this area's soil and vegetation will be disturbed under this alternative. The project is located primarily in a previously disturbed development zone, and the project will not affect the overall viability of the plant community, therefore, this impact is considered a minor adverse impact. In addition, some beneficial effects will occur because the Hatchery will be replacing all non-native landscaping with native desert vegetation. No impairment of soils and vegetation will occur as a result of the impacts associated with this alternative.

Wildlife

There are small mammals, birds, and reptiles located within the construction zone. These animals could be directly impacted by construction activities through loss of nests, dens and burrows, and loss of life. Approximately 7.46 acres of new habitat will be permanently modified under this alternative. This is a small area of low quality wildlife habitat, and generally, wildlife will move away from the construction activities. There is available habitat nearby. This is a minor impact since the majority of the site is already developed so few species could be disturbed. Larger mammals, like coyotes, will avoid the project area during renovation and construction activities.

Cumulative Effects: Wildlife habitat in the Boulder Beach development zone, and other development zones, has been permanently altered by the construction of facilities, parking lots, and the planting and irrigation of non-native vegetation. The area still supports some wildlife, such as small mammals, reptiles, birds, and coyotes. This alternative will displace additional wildlife, but will only minimally add to the loss of habitat since the area is inside the development zone and considered low quality habitat.

Conclusion: Minor adverse impacts to wildlife will occur from the loss of a small portion of habitat due to new construction within the development zone. Construction could permanently displace or potentially injure or kill the few animals that can not move away from the construction activities. No impairment to wildlife or wildlife habitat will occur as a result of the impacts associated with this alternative.

Water Resources

Due to Hatchery improvement proposed under this alternative, including improving the existing treatment system and settling ponds, it is reasonable to expect that in the future, water quality standards will be met for the discharge of treated water back into Lake Mead from the Hatchery. Therefore, water quality on a localized basis will improve under this alternative.

Cumulative Effects: Water quality standards are being met elsewhere in Lake Mead. However, as the population increases, and more run-off and treated effluent enters Lake Mead from Las Vegas through Las Vegas Wash, there is the potential that, without future planning efforts, water quality standards could be temporarily exceeded in certain locations within Lake Mead. It is hoped that ongoing and future planning efforts will

help maintain and even improve the existing water quality of Lake Mead.

Conclusion: Water quality in Lake Mead near the Hatchery should benefit from the improvements proposed under this alternative. There will be no impairment to water resources from the impacts associated with this alternative.

Air Quality

There will be slight, localized impacts to air quality during the construction activities, but mitigation will reduce these impacts. Construction activities generate dust and pollution from the use of heavy equipment. This will occur only during construction, for a period of 3 to 6 months, and will be localized in the construction zone. Mitigation will help reduce these impacts.

Cumulative Effects: Impacts in the vicinity of Boulder Beach to air quality are evident during windy conditions when particulate matter and dust are visible. Visual impacts to air quality in the Boulder Beach area can occur when pollution from adjacent communities circulates into the recreation area. The primary impact is haze and reduced clarity of the air. This project will not add to those impacts other than on a localized basis during the construction period.

Conclusion: There will be minor adverse impacts to air quality in the construction zone. No impairment will occur to air quality as a result of the impacts associated with this alternative.

Cultural Resources

The project area was inventoried for cultural resources and none were located within the APE (Gushue 2003). The pipeline from the water treatment facility to the fish hatchery will be installed in previously disturbed road shoulders and will have no effect on cultural resources. There will be no impact to cultural resources under this alternative.

Cumulative Effects: There will be no cumulative impacts to cultural resources under this alternative.

Conclusion: There will be no impact and no impairment to cultural resources based on the impacts associated with this alternative.

Scenic Quality

This project is generally consistent with the standards for the recreation area development zones. It could detract from the scenic quality of the Boulder Beach development zone if construction is not completed in an environmentally sensitive manner. The mitigation of the project, including using an earthen berm and landscaping to screen the area from the lake, would reduce the level of impact under this alternative and actually create beneficial effects from eliminating the Hatchery from the lake view.

Cumulative Effects: The scenic quality of the Boulder Beach developed zone has been previously impacted by the existing facilities. The facilities located in the zone,

including campground, ranger station, lodge, and water treatment plant are not natural in appearance and could detract from the scenery. However, visitors to the developed zones generally expect buildings and facilities. There are opportunities nearby for natural scenes.

The proposed project will add three residences to the Boulder Beach development zone, but the building design, coloring, landscaping, and screening will help the facilities blend in with the surrounding desert and not add to the existing impacts. There are no further plans for building construction at this site.

Conclusion: Buildings do detract from the scenic quality of an area. However, this impact is considered negligible since visitors expect services and buildings within development zones. No impairment of the scenic resources will occur from the impacts associated with this alternative.

Visitor Use

Visitors will benefit from the renovation of the Lake Mead Fish Hatchery, as this facility will produce trout in support of recreational fishing within Lake Mead NRA. Major portions of fish produced at the Hatchery are planted within Lake Mead NRA at planting sites on Lakes Mead and Mohave. This will enhance the quality of the shoreline fishery and thus support maintaining the diversity of recreational opportunities within Lake Mead NRA.

Cumulative Effects: No cumulative effects will occur to visitor use.

Conclusion: This facility will serve the visitors and could improve their recreational experiences by enhancing the recreational fishing opportunities. There will be beneficial effects to visitor use.

Land Use

Approximately 7.46 acres of land will be added to the Lake Mead Fish Hatchery lease area. This land will no longer be available for public recreation as it will be used for the Hatchery facilities.

Cumulative Effects: Acreage in the Boulder Basin development zone has been utilized for a variety of non-recreational purposes, including the Southern Nevada Water Authority easement area. This project will further remove 7.46 acres from lands that area available for recreation use and resource protection.

Conclusion: Based on the amount of available acreage, this project will have minor impacts to land use in the recreation area. There will be no impairment to park resources.

PUBLIC INVOLVEMENT

Scoping for this environmental assessment was conducted by press release in local newspapers and through letters to interested parties on the NPS and NDOW mailing lists. The 15-day scoping period took place between November 14 and December 2, 2002. No comments were received. Public notice of the availability of this environmental assessment was published in local newspapers, and on the Lake Mead NRA Internet Web site (http://www.nps.gov/lame). Individuals and organizations could request the environmental assessment in writing, by phone, or by e-mail. The environmental assessment was circulated to various federal and state agencies, individuals, businesses, and organizations on the park's mailing list for a 30-day public review period. Copies of the environmental assessment were also made available at area libraries. Approximately 75 copies of the EA were distributed for public review. One comment letter was received on the EA during the 30-day comment period that extended from March 6 to April 4, 2003. The letter was sent by the Army Corps of Engineers and provided no substantive comments.

CONSULTATIONS AND PERMITTING

This project is a cooperative effort between the NPS and the Nevada Division of Wildlife.

NDOW will obtain a dust-control permit from the Clark County Health District, Air Pollution Control Division, prior to initiating any construction activities.

A utility right-of-way permit between NDOW and the NPS is required from the proposed 7,950-foot waterline connecting the Hatchery with the Alfred Merritt Smith Water Treatment Plant. This connection will be parallel to Lakeshore Drive and will provide potable water to the facility.

The NPS has consulted with appropriate Native American groups as required by the various laws, regulations, and executive orders. A report was prepared and sent to the State Historic Preservation Office stating that no cultural resources were located in the APE and that the project will have No Effect on cultural resources. The SHPO has had no comment.

The Lake Mead NRA staff will notify and consult with concerned tribal representatives for the proper treatment of human remains, funerary, and sacred objects, should these be discovered during the course of this monitoring project.

BASIS FOR DECISION

The National Park Service selects Alternative B because it will ensure safe, healthful, and aesthetically and culturally pleasing surroundings by allowing the renovations of the Hatchery. Renovating the Hatchery will improve visitor services, and provide a healthful and safe environment for visitors and Hatchery employees. It will improve operations efficiency and sustainability. It will prevent the loss of natural resources and protect important aspects of the recreation area, including the water quality of Lake Mead.

IMPAIRMENT OF PARK RESOURCES OR VALUES

The effects of the preferred alternative will not impair park resources or values necessary to fulfill specific purposes identified in the park's enabling legislation. Impacts documented in the EA and summarized above will not affect resources or values key to the natural and cultural integrity of the park or alter opportunities for enjoyment of the park. The preferred alternative will not impair park resources and will not violate the NPS Organic Act. This conclusion is based on a thorough analysis of the impacts described in the environmental assessment, the agency and public comments received, and the professional judgment of the decision-maker in accordance with NPS *Management Policies, 2001*.

CONCLUSION AND BASIS FOR DETERMINATION

Based on the analysis completed in the EA, the capability of the mitigation measures to reduce, avoid, or eliminate impacts, and with due consideration of public response, the NPS determined that there are no cumulative, indirect effects, or connected actions with the potential for significant impacts. Therefore, an environmental impact statement is not required, and the selected action may be implemented as soon as practical.

I find that the preferred alternative does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, in accordance with the National Environmental Policy Act of 1969 and regulations of the Council on Environmental Quality (40 Code of Federal Regulations 1508.9), an environmental impact statement will not be prepared for this project.

Recommended:

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William K. Dickinson, Superintendent Date
Lake Mead National Recreation Area

Approved:

_____ _____

Jonathan B. Jarvis Date
Regional Director, Pacific West Region