

National Park Service
U.S. Department of the Interior

Lake Mead National Recreation Area
Sustainable Low Water Access Plan and Environmental Assessment – FONSI



FINDING OF NO SIGNIFICANT IMPACT
Sustainable Low Water Access Plan
and Environmental Assessment
Lake Mead National Recreation Area

November 2023

**JUSTIN
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for

Mike Gauthier, Superintendent
Lake Mead National Recreation Area

Date

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FINDING OF NO SIGNIFICANT IMPACT

1. INTRODUCTION

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS) prepared a sustainable low water access plan/environmental assessment (plan/EA) to examine alternative actions and environmental impacts associated with low water access at Lake Mead National Recreation Area (the park). The plan/EA focuses on five high-priority sites, will serve as a general management plan amendment, and will provide updated guidance to replace the 2018 low water plan and the associated 2019 finding of no significant impact (FONSI). The park does not currently have comprehensive plans or strategies to manage lake levels below an elevation of 950 feet. As a result, Lake Mead is faced with various management challenges resulting from water level uncertainty coupled with increasing demand for motorized water access and the associated rising visitation.

The Upper Basin of the Colorado River has experienced exceptionally dry conditions since the early 2000s. Coupled with the ongoing effects of climate change, reduced snowpack, and low runoff conditions, the unprecedented challenges associated with managing recreational infrastructure and related access at Lake Mead have accelerated faster than anticipated. The purpose of the plan/EA is to provide an updated strategic direction for the future of motorized boat launching, related commercial services, facility and infrastructure needs, and related implementation action at five priority locations. There is a need for the park to:

- fill an urgent and high-priority need to help make critical decisions to inform boating access;
- provide updated direction for natural and cultural resource programs;
- identify opportunities for nonmotorized water-based access; and
- evaluate potential site closures given low water levels and the associated considerations for commercial operations.

The statements and conclusions reached in this FONSI are based on documentation and analysis provided in the plan/EA and associated decision file. Relevant sections of the plan/EA are summarized and incorporated by reference below. The plan/EA is available at <https://parkplanning.nps.gov/LAKE-Low-Water-Access>. A summary of public comments received and responses from the National Park Service is provided in attachment A of this document. Minor modifications to the plan/EA are provided in attachment B, the errata. Edits to the revised plan based on substantive public comment are incorporated directly into the final sustainable low water access plan (final plan) and associated appendixes. Therefore, the final plan is inclusive of the errata changes in this document. A determination of non-impairment is also described in attachment C.

2. SELECTED ALTERNATIVE AND RATIONALE FOR DECISION

2.1 Selected Alternative

The National Park Service analyzed two action alternatives (alternatives 1 [NPS preferred] and 2) and a no-action alternative (alternative 3), with associated actions and strategies for each location in the plan/EA. The action alternatives present different approaches to achieve and maintain desired conditions and meet the purpose and need of the plan/EA. The no-action (alternative 3) and current management (alternative 1) alternatives are different because rapidly changing water levels, which have been significantly impacted by climate-induced drought, have forced NPS staff to adapt to provide visitors with motorized and nonmotorized recreational opportunities that also protect resources.

Based on this analysis, the National Park Service selected alternative 1 as the preferred alternative, which describes the current management of the marinas and launch ramps within the project area and proposed actions. This alternative is selected for implementation because it best meets the purpose and need for action. The selected alternative is described on pages 10–14 of the plan/EA and includes site-specific actions. Without the selected alternative, the park would continue to manage under the 2019 FONSI, which did not provide management direction for potable water without updated or detailed direction for managing the five launch locations into the future, and none of the input from the public, Tribal governments, and stakeholders gathered over the last few years would be incorporated.

Actions summarized are substantively the same as described in the plan/EA, but some minor grammatical changes have been incorporated and are disclosed in the errata (attachment B), such as updating the term “elevation” to “level” when describing water level conditions. Changes in the errata are minor and do not update the impact analysis connected with this change to the action. The specific changes are documented in the errata (see attachment B). The errata includes changes to “Appendix D: Mitigation Measures and Best Management Practices” of the plan/EA. Language regarding the relocation of tortoises has been removed, and language to describe specific actions for the handling of the tortoises has been added.

The selected alternative for the launch ramp and marinas at Echo Bay has been updated in the errata to clarify the action and further describe the primitive nature of the launching opportunity.

2.2 Scope of the Plan and Environmental Assessment

The plan/EA is focused on five Lake Mead launch locations: Hemenway Harbor, Echo Bay, Callville Bay, South Cove, and Temple Bar. The plan/EA includes required implementation elements such as a targeted assessment of new water-related access and recreation opportunities that would be explored given changing water levels and specific tools for managing use, facilities, and resources, given the changes in access. Cost estimates for net construction costs, operational and maintenance costs, and possible abandonment of facilities are included for the selected alternative. In addition, the feasibility of commercial operations is considered for future management to identify and support recreational opportunities that are sustainable and achievable.

2.2.1 NPS Selected Alternative (Alternative 1)

The selected alternative describes the current management of the marinas and launch ramps within the project area. This alternative also includes actions that have not yet been implemented but provide future management direction. The National Park Service will provide a mixture of recreational opportunities, including motorized and nonmotorized lake access, at targeted sites to the degree financially feasible and cost-effective. National Park Service staff will maintain concessioner operated marinas and improved launching access at Hemenway Harbor, Callville Bay, and Temple Bar. At Echo Bay and South Cove, NPS staff will maintain primitive visitor access to the extent feasible. The selected alternative will prioritize investments that ensure continued diversity of access and opportunities, including providing a range of experiences. Specific actions within the five areas are described below.

Hemenway Harbor

Launch Ramp and Marina Operations

Under the selected alternative, the National Park Service will extend the launch ramp in its existing location to a water level of approximately 1,000 feet and will maintain marina operations. Ongoing berm extensions will continue to promote visitor safety and improve traffic flow. When water levels are below approximately 1,000 feet, the National Park Service will relocate the launch ramp and marina(s) closer to Hemenway Wall. Above approximately 1,000 feet, evaluate existing launch ramp location for reopening. To maintain these services, NPS staff will evaluate the feasibility of transferring the construction and operation rights of the launch ramp to the concessioner.

If the launch ramp and marinas are relocated and water levels fluctuate or consistently rise above approximately 1,000 feet, NPS staff will open the launch ramp in its original location after an evaluation for operational, financial feasibility and safety for motorized use. Access will be allowed for motorized and nonmotorized watercraft use and fishing within the Hemenway Harbor area.

Facilities and Services

Under the selected alternative, concession operations and utility corridors will continue to be maintained to provide ongoing visitor services (e.g., marina operations and services, extended utility corridors) aligned with Architectural Barriers Act Accessibility Standards. Park operations will continue to support concessioner operations of the marina, such as moving underwater anchors for courtesy dock(s), buoys, and navigation systems away from shorelines to adjust to changing marina locations.

The National Park Service will maintain visitor and operational safety services and responses such as launch ramp, docks, and fuel. The National Park Service will stop maintaining structures that are unsafe and no longer needed. National Park Service staff will evaluate abandoned infrastructure for operational, financial feasibility and safety, and remove where appropriate. Natural conditions in the upper area of the harbor will be preserved to enhance the visitor experience and viewshed.

Potable Water

Under the selected alternative, Boulder City will continue to provide potable water.

Echo Bay

Launch Ramp and Marina Operations

Under the selected alternative, the National Park Service will maintain the closure of the existing launch ramp and provide motorized and nonmotorized limited access down to 1,000 feet via a primary access road and primitive launch ramp area. National Park Service staff will maintain the primitive launching area, meaning launches on a natural surface at visitors' own risk with minimal NPS maintenance compared to other locations. The concessioner will continue to operate the trailer village and RV sites, land-based fuel, and limited retail.

Due to topographic and bathymetric constraints of the lake bottom, primitive launch ramp operations will be closed below 1,000 feet. If water levels rise above 1,000 feet, the launch ramp will be opened at the existing location after evaluating for operational and financial feasibility and safety for motorized use. Access to the launch ramp will be allowed for motorized and nonmotorized watercraft use and fishing.

Facilities and Services

Under the selected alternative, the National Park Service will maintain the concession contract to operate land-based fuel, retail, and the trailer village and RV sites with no on-water operations. Restroom services will be maintained. Land-based fuel availability will be maintained. The site will continue to provide camping, nonmotorized boater access, and shoreline access. National Park Service staff will evaluate historic structures for removal that are unsafe and no longer needed, noting that some structures contribute to the significance of the Echo Bay Developed Area Historic District. Future compliance may be needed once the National Park Service decides on the future of these structures.

Once potable water could no longer be provided (see below), the National Park Service will discontinue concession services, and close the trailer village and RV sites, the concession-managed comfort station, and the related wastewater treatment facility. Buildings in this area are not viable for repurposing, and Echo Bay will provide primitive services only to visitors. National Park Service staff will evaluate campground options with no water, electricity, fuel, and other amenities.

If the water levels rise above 980 feet, opportunities for commercial services will be considered and evaluated.

Potable Water

Under the selected alternative, the National Park Service will continue to provide potable water with current infrastructure until water levels reach 980 feet. If the National Park Service is unable to provide potable water, a timeline and plan will be developed to allow time for trailer village occupants to relocate themselves and their personal property outside of the park.

Callville Bay

Launch Ramp and Marina Operations

Under the selected alternative, the concrete launch ramp at Callville Bay will continue to be closed when water levels are at 1,065 feet or below. All other facilities will continue to operate, including the launch ramp, which will continue to provide access to the marina, and the

concessioner, which will continue to maintain a portable launch ramp. The National Park Service will extend the launch ramp and marina operations further into the lake to the extent feasible. A new accessible courtesy dock will be provided with the launch ramp. National Park Service staff will complete the design of all supporting infrastructure (e.g., roads, parking lot, utilities) associated with launch ramp extension and access of the marina.

Facilities and Services

Under the selected alternative, the National Park Service will maintain the concessions contract to manage the trailer village, restaurant, boat shop, comfort stations, and other concession infrastructure.

Below 950 feet, out-of-water launch facilities (i.e., infrastructure that no longer reaches or provides access to the water) will be evaluated and removed if identified to be unsafe or operationally infeasible for motorized use. National Park Service staff will evaluate abandoned infrastructure for operational and financial feasibility and safety and remove where appropriate. Employee housing and any services relying on potable water will be removed once existing infrastructure no longer provides potable water. Buildings in this area are not viable for repurposing. National Park Service staff will evaluate campground options with no water, electricity, fuel, and other amenities.

If water levels rise above approximately 1,065 feet, the National Park Service will open the concrete launch ramp at its current location within Callville Bay. Opportunities for commercial services will be considered and evaluated.

Potable Water

Under the selected alternative, the National Park Service will provide potable water with current infrastructure until water levels reach 950 feet. If the National Park Service is unable to provide water, a time line and plan will be developed to allow time for trailer village and RV site occupants to relocate themselves and their personal property outside of the park.

South Cove

Launch Ramp and Marina Operations

Under the selected alternative, as topography allows within this area and between 1,035 and 1,070 feet, the National Park Service will continue to support primitive launch access from the end of an NPS-approved road (i.e., South Point). The road is approximately 0.5 miles south of the existing concrete launch ramp. Below approximately 1,035 feet, no new primitive launch access will be constructed. Above approximately 1,070 feet, the National Park Service will open the concrete launch ramp for visitor use.

Facilities and Services

Under the selected alternative, the National Park Service will continue to support motorized and nonmotorized launching, and no amenities or services will be provided to maintain a primitive experience. The National Park Service will consider providing opportunities for overnight use in a primitive setting (e.g., campground) for visitors. National Park Service staff will evaluate abandoned infrastructure for operational and financial feasibility and safety and remove where appropriate.

Potable Water

Under the selected alternative, current management will continue and potable water will not be provided at South Cove.

Temple Bar

Launch Ramp and Marina Operations

Under the selected alternative, NPS staff will maintain the closure of the existing NPS launch ramp when water levels are approximately 1,070 feet or below. The marina will continue to be operated and maintained by the concessioner. The concessioner will continue to maintain a portable launch ramp. The National Park Service will forgo the construction of a new launch ramp in favor of a limited launching facility to be operated by the concessioner. If needed, the concessioner could relocate the marina and portable launch ramp to provide access to 950 feet.

If the National Park Service is unable to secure financial resources, then NPS staff will terminate the concession contract and close the marina. The National Park Service will continue to provide administrative access to park boats for emergency services, research, and monitoring activities.

Facilities and Services

Under the selected alternative the National Park Service staff will maintain concession contract and services, including land and water fuel stations, hotel, limited retail, restaurant and the trailer village and RV sites, and will maintain current NPS campground operations.

If the National Park Service is unable to secure financial resources to maintain the concession contract and services, it will terminate the concession contract unless the concessioner expressed interest in operating land-based facilities only. The concessioner can continue operation of the trailer village and associated infrastructure.

National Park Service staff will evaluate campground options with no water, fuel, and other amenities. The National Park Service will manage fuel for administrative use. National Park Service staff will evaluate abandoned infrastructure for operational and financial feasibility and safety and remove where appropriate. National Park Service staff will evaluate historic structures for removal that are unsafe and no longer needed, noting that some structures contribute to the significance of the Temple Bar Developed Area Historic District. Future compliance may be needed once the National Park Service decides on the future of these structures.

Potable Water

Under the selected alternative, potable water will remain available as funding and topography allows. If the National Park Service is unable to provide water, a timeline and plan will be developed to allow time for trailer village occupants to relocate themselves and their personal property outside of the park.

2.2.2 Rationale

The selected alternative best meets the purpose and need because it provides an updated strategic direction for the future of motorized boat launching, related commercial services, facility and infrastructure needs, and related implementation actions at five priority locations. This alternative provides more feasible alternatives than the 2019 FONSI. The 2019 FONSI called for

building boat ramp access in five locations to be serviceable to a lake elevation of 950 feet. The expectation at the time was that a lake level of 1,050 was more likely. A drop to 950 feet, if it ever happened, was expected to take many years, allowing funding to be spread over a long period. In the few years since that plan was developed, water levels have dropped about 50 feet, far faster than anticipated, leaving four out of five ramps unusable during the summers of 2020–2022. The selected alternative prioritizes construction for boat ramp access, depending on funding levels and the sustainability of the investments.

3. MITIGATION MEASURES

The National Park Service places strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. Therefore, the National Park Service will implement multiple mitigation measures and best management practices under the selected alternative to protect natural and cultural resources per authorities, including the Organic Act, the National Historic Preservation Act, NPS *Management Policies 2006*, park-specific regulations at 36 CFR Part 13 Subpart N, and other federal and state applicable requirements. These measures and practices are described in detail in appendix D of the final plan and are hereby incorporated by reference. Additional mitigation measures were not needed to reduce environmental impacts below the potential significance threshold.

4. SIGNIFICANCE CRITERIA REVIEW

4.1 Potentially Affected Environment

The project area includes five launch locations: Hemenway Harbor, Echo Bay, Callville Bay, South Cove, and Temple Bar. Resources within the project area that may be beneficially or adversely impacted include visitor use and experience, facilities and infrastructure, socioeconomics, natural resources, and cultural resources.

4.2 Degree of Effects of the Action

The National Park Service considered the following actual or potential project effects in evaluating the degree of effects (40 CFR 1501.3[b][2]) for the selected alternative.

4.3 Beneficial and Adverse and Short-Term and Long-Term Effects of the Selected Alternative

No potential significant impacts on resources were identified that would require analysis in an environmental impact statement. Whether taken individually or as a whole, the impacts of the selected alternative, including direct, indirect, and cumulative effects, do not reach the level of a significant effect because most adverse impacts associated with implementation would be minimal, limited to a small portion of a resource, or temporary, lasting only as long as actions are being implemented. The best management practices and mitigation measures identified in appendix D of the final plan would further minimize any potential adverse impacts.

Visitor Use and Experience

As discussed in chapter 3 of the plan/EA, pages 27–44, the selected alternative will result in overall beneficial and some adverse impacts on visitor use and experience. The impacts of the selected alternative will contribute to, but not substantially change, the beneficial and adverse impacts on

the quality of visitor experience that are already occurring. The selected alternative continues to provide lake access and a range of water-based recreational opportunities, including motorized and nonmotorized opportunities.

Hemenway Harbor – Under the selected alternative, impacts on visitor use and experience will have overall beneficial impacts. The relocation of the launch ramp and marina facilities below approximately 1,000 feet and reopening actions above 1,000 feet will benefit the visitor experience by continuing to provide motorized access that contributes to a range of water-based recreation opportunities. These opportunities include both motorized and nonmotorized watercraft use, as well as fishing opportunities within the Hemenway Harbor area.

Echo Bay – Under the selected alternative, impacts on visitor use and experience will result in overall beneficial impacts on visitor use and experience. Opening the concrete launch ramp in its existing location when water levels are above 1,000 feet will benefit the visitor experience by continuing to provide motorized access that contributes to a range of water-based recreation opportunities. These opportunities include both motorized and nonmotorized watercraft use, as well as fishing opportunities at Echo Bay. Closing launch ramp operations below a 1,000-foot water level will limit the opportunity for motorized launching at Echo Bay and, therefore, limit the range of water-based recreation opportunities.

Below a 980 feet water level, the National Park Service can no longer provide potable water with current infrastructure, and Echo Bay will become a primitive location, adversely impacting visitor experience by discontinuing visitor services that rely on potable water. The discontinuation of services that rely on potable water include concession services, the trailer village and RV sites, the concession-managed comfort station, and the related wastewater treatment facilities, which will adversely impact the visitor experience by limiting the available services and recreation opportunities at Echo Bay. The loss of restroom facilities due to the discontinuation of potable water would require visitors to travel out of the area to find restrooms and increase the likelihood of human waste on the landscape, resulting in adverse impacts on the quality of visitor experience. With the loss of potable water, visitors will be required to bring their own water to the site, adversely impacting the quality of visitor experience due to loss of water services on-site.

Callville Bay – Under the selected alternative, impacts on visitor use and experience will result in overall beneficial impacts on visitor use and experience. Extending the launch ramp and marina operations further into the lake benefits the visitor experience by providing motorized launching access and marina services that contribute to a range of water-based recreation opportunities. These opportunities include both motorized and nonmotorized watercraft use, as well as a new accessible courtesy dock, providing beneficial impacts on the quality of visitor experience at Callville Bay. Similarly, opening the concrete launch ramp at its current location within Callville Bay if water levels rise above approximately 1,065 feet will benefit the visitor experience by providing additional opportunities for motorized launching access, which contributes to a range of water-based recreation opportunities at Callville Bay. Below a 950 feet water level, out-of-water launch facilities will be evaluated and removed if identified to be unsafe or operationally infeasible, resulting in temporary adverse impacts on the visitor experience and long-term benefits to the quality of visitor experience. The discontinued maintenance of structures would adversely affect the visitor experience, as these structures will negatively impact the viewscape until removed. The removal of abandoned infrastructure will benefit the visitor experience by enhancing the viewshed of the area and reducing safety risks associated with abandoned infrastructure. Below a 980 feet water level, the National Park Service will no longer maintain

potable water, and a time line and plan will be developed to allow time for trailer village occupants to relocate themselves and their personal property outside of the park, adversely impacting the visitor experience by limiting the types of opportunities and range of experiences at Callville Bay. Impacts on the visitor experience from the loss of potable water to existing infrastructure are similar to what is described for Echo Bay. The National Park Service will evaluate campground options with no water, electricity, fuel, and other amenities, which will benefit the visitor experience by contributing to a range of visitor experience opportunities at Callville Bay if the evaluation deems these campground options feasible and actions are implemented.

South Cove – Under the selected alternative, opening the concrete launch ramp for visitor use above a water level of approximately 1,070 feet will benefit the visitor experience by providing additional opportunities for motorized launching access that contributes to a range of water-based recreation opportunities at South Cove. The National Park Service will consider providing visitor opportunities for overnight use in a primitive setting, which, if feasible and implemented after evaluation, will benefit the visitor experience by contributing to a range of visitor experience opportunities at South Cove.

Temple Bar – Under the selected alternative, current management would continue and include actions such as considering opportunities for relocating the concessioner-operated marina and portable launch ramp, resulting in overall beneficial impacts on visitor use and experience. The National Park Service will forgo the construction of a new launch ramp in favor of a limited launching facility to be operated by the concessioner, and, if needed, the concessioner will relocate the marina and portable launch ramp to provide access to a water level of 950 feet. This action will benefit the visitor experience by providing opportunities for motorized launching access and marina services that contribute to a range of water-based recreation opportunities at Temple Bar. If the National Park Service is unable to secure financial resources, and unless the concessioner expresses interest in operating land-based facilities only, then NPS staff will terminate the concession contract and close the marina, adversely impacting the visitor experience by limiting the range of available visitor services and opportunities at Temple Bar. Discontinued visitor services and experiences will include opportunities to lease slips; powerboat, fishing boat, and personal watercraft rentals; camping, land, and water fuel stations; a hotel, store, restaurant; and the trailer village and RV sites. If the concessioner expressed interest in operating land-based facilities only, the concessioner could continue operating the trailer village and associated infrastructure, benefiting the visitor experience by continuing to provide these land-based services and opportunities.

In response to low water levels, ongoing and future actions on Lake Mead would continue to reduce access for motorized launching if water levels continue to decline, adversely impacting the visitor experience by reducing motorized recreational opportunities. If water levels continue to decline, operational challenges to maintain launch ramp operations would continue to be exacerbated, limited, and potentially not possible due to the topography of the land and the bathymetry of the lake when water levels are low. With operational challenges come challenges to maintain consistent and reliable access to water-based recreation. Over time, with water level decline and under low water conditions, Lake Mead could see decreased motorized use because of limited-to-no launch opportunities in response to launching constraints. When combined with past, present, and reasonably foreseeable actions, impacts from alternative 1 would result in beneficial and adverse impacts on visitor use and experience. The impacts of the

selected alternative will contribute to, but not substantially change, the impacts that are already occurring.

Facilities

As discussed in chapter 3 of the plan/EA, pages 44–49, the selected alternative will result in beneficial and adverse impacts on facilities. Extending the launch ramps and marinas at Callville Bay, Temple Bar, and Hemenway Harbor would result in additional maintenance and need for staff presence. Additionally, at Hemenway Harbor, when it becomes necessary to relocate the launch ramp and marina closer to the Hemenway Wall, this would result in adverse impacts on facilities, as it would result in abandoned infrastructure at the existing location. The evaluation of abandoned infrastructure for removal at all locations within the project area would provide beneficial and adverse impacts on facilities and operations. If facilities are removed, short-term adverse impacts would occur due to increased staff needs and changes in operations; however, there would be long-term beneficial impacts due to an overall reduction in the number of facilities in the park to maintain.

Overall, there will be beneficial impacts on facilities due to a consolidation of facilities to support concessioner operations and an evaluation of abandoned infrastructure. The declining water levels have necessitated adjustments to the infrastructure around Lake Mead. Park staff are implementing infrastructure improvements by adapting docks and marinas to lower water levels, repositioning and extending boat launch ramps to maintain access to the water, and relocating facilities that can no longer provide services and amenities given the water level.

To continue providing recreation opportunities, functional facilities, and amenities, Lake Mead staff will modify existing infrastructure and implement new construction techniques to accommodate changing water levels. Park staff will also focus on conducting regular inspections and maintenance activities to ensure the safety and usability of facilities and explore innovative solutions, such as floating docks and adjustable structures, to adapt to changing conditions and optimize facility operations, resulting in beneficial impacts for facilities. The selected alternative continues to maintain facilities to support concession operations and visitor services, as described in the selected alternative for each location. The National Park Service will stop maintaining structures that are unsafe and no longer needed. Park staff will evaluate abandoned infrastructure for operational, financial feasibility, and safety and remove, where appropriate, after completing any necessary compliance and consultation.

In the short term, there would be adverse impacts while facilities remain abandoned and unused, including an increased need for a law enforcement presence and challenges for park operations due to visitor and/or staff safety. Park operations would benefit from the strategic approach, and facilities would be more sustainable and adaptable. Though the selected alternative will result in both short- and long-term adverse impacts on facilities, the impacts will not be significant because launch ramps will be extended at identified locations, and an evaluation of abandoned infrastructure for removal will be completed. When these effects are combined with past, present, and reasonably foreseeable future actions, they will result in beneficial impacts on facilities due to a consolidation of facilities to support concessioner operations and an evaluation of abandoned infrastructure.

Natural Resources – Federally Listed Species

As discussed in chapter 3 of the plan/EA, pages 57–68, 13 federally listed threatened or endangered or candidate/proposed species or subspecies have the potential to occur in or near the project area. Critical habitat is identified for three of these species within or near the project area. The selected alternative may affect but would not likely adversely affect two federally listed species—the razorback sucker and desert tortoise. Appendix D of the final plan includes mitigation measures for federally listed species. Conservation measures and best management practices to protect federally listed species are also included in the biological assessment prepared for the selected alternative (see the revised biological assessment prepared on September 7, 2023).

For razorback sucker, its abundance and distribution have been greatly reduced from historical levels, primarily due to the construction of mainstem dams and the introduction of nonnative sport fish. All of Lake Mead is designated as critical habitat for this species. As water levels drop in Echo Bay and other potentially suitable habitat along Lake Mead shorelines, the sucker must find new habitat. Spawning areas are typically located along relatively shallow shorelines with cobble and gravel substrates, which is determined by annual surveys conducted during the spawning season and includes suitable habitat locations throughout Lake Mead (Rogers et. al 2021). Actions to maintain launch access and marina operations would result in the continued noise of boat engines, as well as water turbulence that could disturb razorback suckers and other fish and result in their displacement. In shallow areas, motorized vessels also create wave action and persistently disturb substrates, which could be detrimental to the fish, especially during spawning. However, boating activity is reduced on Lake Mead during the razorback's January-to-April spawning season; therefore, limiting impacts on spawning razorback suckers and thus population recruitment. National Park Service staff would obtain current information on spawning activity and locations before implementing the management activities described in this document to reduce the risk of incidental impacts on this species.

The selected alternative includes best management practices to protect the razorback sucker and its spawning habitat. These practices include clearly marking mooring and boating areas from adjoining spawning areas with buoys and signing, maintaining a public awareness campaign, maintaining a flat-wake zone near spawning areas, and requiring the implementation of best management practices at marinas to protect water quality. The National Park Service would continue to monitor spawning areas and would temporarily implement closures of areas used for spawning if determined to be necessary to protect razorback sucker populations. The selected alternative also includes the continued use of the temporary, portable launch ramp at Temple Bar and Callville Bay, which reduces impacts on potential spawning habitat from the effects of extending or relocating the launch ramp by precluding the need to install concrete or other materials. Given the small percentage of habitat that would be impacted under this planned action, razorback suckers would likely be able to find alternative locations to spawn; therefore, the impacts on razorback sucker spawning would be negligible.

Boat launches are currently planned on natural surfaces at Echo Bay, which may disturb sediments during boat launches, causing similar adverse impacts on razorback sucker as the construction activities described in chapter 3 of the plan/EA. However, mitigation measures would be implemented to reduce adverse impacts on razorback sucker habitat from recreational use of the area, such as clearly marking mooring and boating areas from adjoining spawning areas with buoys and signing, maintaining a public awareness campaign, and maintaining a flat-wake zone near spawning areas. Furthermore, spawning and the highest concentration of use of Echo

Bay by individual razorbacks is during the lower visitor use periods; therefore, overall human disturbance is minimal during these critical periods. Appendix D in the EA includes a complete description of mitigation measures, as well as best management practices included in the biological assessment prepared for the selected alternative.

For desert tortoise, the National Park Service has worked with the US Fish and Wildlife Service (USFWS) to develop mitigation to reduce or eliminate potential adverse impacts on desert tortoises from construction activities. Examples of such mitigation include clearly marking construction limits, surveying construction areas, educating construction personnel about tortoises, instituting a litter-control program, and surveying for tortoises by a qualified biologist. Though desert tortoises are not likely to be encountered within the immediate areas involved in the proposed actions, these areas will be surveyed by a qualified USFWS-authorized biologist for desert tortoises and their burrows and dens, immediately prior (within 24 hours) to construction in any given area. The National Park Service will continue to discuss and consult with the USFWS after this plan is completed, including prior to the implementation of actions that could affect federally listed species and their habitats. Please refer to appendix D for a complete description of mitigation measures, as well as best management practices included in the biological assessment prepared for the selected alternative.

Cumulatively, the selected alternative could result in the loss or degradation of razorback sucker spawning habitat due to extending or relocating launch ramps. The low water levels continue to affect the habitat and population of the razorback sucker. Sites previously used for spawning are now dry. However, as noted in the EA, the Lake Mead population appears to reproduce successfully in the lower Colorado River Basin. In the past, the fish are observed to adapt to the lowering water and located new areas in which to spawn. While the abundance and distribution of razorback suckers in the lake is not well known, the EA referenced recent surveys indicating the Lake Mead population is young and resilient. Therefore, while actions in the selected alternative would be adverse, they do not rise to the level of significance because these actions would not have a population level effect on razorback sucker.

Similarly, the selected alternative could also result in damage to desert tortoise habitat from the movement of equipment and vehicles between staging areas and the immediate areas involved in the selected alternative; however, mitigation measures will minimize the potential for these impacts to occur. Cumulatively, when the incremental impacts of the selected alternative are combined with the impacts of past, ongoing, and reasonably foreseeable future planned actions described in the EA, the overall cumulative impacts on razorback sucker and desert tortoise would continue to be adverse. The incremental impacts of the selected alternative would contribute to, but would not substantially change, the impacts that are already occurring. Therefore, the impacts on federally listed species would not be potentially significant under NEPA, as described above.

Natural Resources – Terrestrial and Aquatic Vegetation

As discussed in chapter 3 of the plan/EA, pages 49–57, implementing the selected alternative is anticipated to result in the loss or degradation of terrestrial and aquatic vegetation and soils conditions related to actions to extend or relocate launch ramps. Overall impacts on native terrestrial and aquatic vegetation would continue to be adverse under the selected alternative but would not substantially change impacts that are already occurring.

Under the selected alternative, as water is depleted, new shoreline areas expose new niches for weedy herbaceous vegetation and aggressive shrubs and trees. Patterns of disturbance to terrestrial vegetation and soils along the shorelines, which includes the project areas, include the initial construction and establishment of the reservoir and later construction activities that established roads, parking areas, marinas, and docks, to support subsequent decades of recreational use of the reservoirs. Soils and vegetation in the project areas have been compacted by decades of boat launch, vehicle, and pedestrian activities, which have steadily moved downslope to follow the receding shorelines. Similarly, parking areas to support visitors and heavy construction equipment staging and movement have compacted soils and denuded terrestrial vegetation where these activities have occurred. Warming temperatures along shoreline waters also threaten the conditions that support natural communities.

Mitigation measures under the selected alternative will minimize negative effects to soils and vegetation in these areas. Best management practices for controlling soil erosion—such as installing silt fences, retaining and replacing topsoil, salvaging seeds or plants, and revegetating sites with native species—have been implemented to reduce runoff and soil loss from construction sites and facilitate the reestablishment of native vegetation. Ongoing enforcement of regulations covering discharges from boats at project sites is expected to help minimize hydrocarbons, harmful chemicals, and boats contaminated with weedy, invasive plant species originating from marina operations.

Cumulatively, the selected alternative could result in the loss or degradation of soils and vegetation due to extending or relocating launch ramps. The selected alternative could also result in damage to soils and vegetation from the movement of equipment and vehicles between staging areas and the immediate areas involved in the selected alternative. However, where natural terrestrial conditions prevail in the project sites, they are sparsely vegetated. As discussed in the EA, soils and vegetation at project sites have been compacted by decades of boat launch, vehicle, and pedestrian activities. Therefore, while actions in the selected alternative would be adverse, they do not rise to the level of significance because these resources are already disturbed, and selected actions would not significantly disturb the integrity of soils and vegetation at the project sites. The incremental cumulative impacts of the selected alternative would contribute to, but would not substantially change, the impacts that are already occurring.

Socioeconomics

As discussed in chapter 3 of the plan/EA, pages 69–77, the selected alternative includes actions to provide launching access across the project area that will result in beneficial impacts on park communities and commercial service operators. Impacts on commercial service operators from park actions to extend the launch ramps at Callville Bay and Hemenway Harbor or relocate the launch ramp and marina closer to Hemenway Wall if water levels drop below 1,000 feet will provide beneficial impacts on commercial services that maintain their business. Any extension or relocation of launch ramps would have short-term adverse impacts on businesses due to construction, which will temporarily close operations. By maintaining operations at each location, concession operators can plan for capital improvements, leading to a higher level of certainty for concessioner planning.

At Temple Bar, commercial service operators will experience beneficial impacts if NPS staff are able to secure funding to extend launch ramps and maintain the contract. However, if funding is not obtainable, the concessioners can continue operating land-based services, such as trailer

villages. The termination of on-water operations will adversely impact the concessioners; however, these impacts may be mitigated by the continuation of land-based services. While Lake Mead National Recreation Area Guest Services will maintain concession services at Lake Mohave during the term of its existing concession contract, changes to concession contracts at other Lake Mead locations may negatively impact the provision of services at Lake Mohave.

Relocating the marina and launch ramp at Hemenway Harbor when water levels reach below 1,000 feet will result in short-term adverse impacts during construction but long-term beneficial impacts on nearby Boulder City, as the area would continue to serve as primary visitor destination. Similarly, the extension of the launch ramp at Callville Bay will provide short-term adverse impacts during construction but long-term beneficial impacts on park communities. At Temple Bar, if funding were to be secured to sustain marina operations, there would be beneficial impacts on the community. However, if funding could not be secured, the concessioner may continue or discontinue operations of the land-based services, which could result in beneficial or adverse impacts on the community.

Once potable water cannot be provided at Echo Bay, Callville Bay, and Temple Bar, the development of a transition plan will allow trailer village occupants time to relocate themselves and their personal property outside of the park. The relocation would disband the communities and result in adverse impacts, but the transition plan would mitigate these impacts by providing occupants with additional time and clear direction, as needed. While the change would have adverse impacts on park communities, potable water cannot be sustainably secured below specific water levels at each location.

Though the selected alternative will result in both short- and long-term adverse impacts on park communities and commercial services, the impacts will not be significant because visitors will continue access to the water through the launch ramps until it is infeasible due to funding and land constraints. When these effects are combined with past, present, and reasonably foreseeable future actions, the cumulative impacts on socioeconomics will be beneficial on socioeconomic trends.

Cultural Resources

As discussed in chapter 3 of plan/EA, pages 77–81, declining water levels are causing many of Lake Mead’s previously submerged archeological resources to be revealed. Accelerated by ongoing drought and changing climate conditions, the exposure of these resources puts them at greater risk to anthropogenic disturbance and damage from natural causes. Although these trends will continue under the selected alternative, the impacts from new actions under the selected alternative on cultural resources, such as launch ramp and marina extensions, will not result in new direct or indirect impacts on the park’s archeological resources. When the impacts from the selected alternative are paired with impacts from reasonably foreseeable actions, the cumulative impacts on cultural resources will be adverse. Mitigation measures, such as conducting cultural resource surveys and consulting with the Nevada and Arizona State Historic Preservation Offices and Tribal Nations, will minimize both direct and indirect impacts on archeological resources.

The selected alternative allows for buildings and structures that contribute to the significance of both the Echo Bay Developed Area Historic District and the Temple Bar Developed Area Historic District to be identified for demolition, resulting in adverse impacts on historic structures under section 106. These impacts would not, however, constitute potential significant impacts under NEPA, as neither historic district possesses national significance. The removal of buildings and

structures in either district would result in a change to the district's eligibility for listing in the National Register of Historic Places.

Degree to Which the Proposed Action Affects Public Health and Safety

The selected alternative will improve public health and safety with actions to distribute visitor use, as well as improvements at the launch ramps. National Park Service staff will maintain visitor and operational safety services and responses, such as launch ramp, docks, and fuel, for safety responses, so that they can be available to visitors in a timely manner. The National Park Service will stop maintaining structures that are unsafe and no longer needed and will evaluate abandoned infrastructures for operational, financial feasibility and safety and remove where appropriate. In addition, ongoing berm extensions will continue to promote visitor safety through improved traffic flow. The improved traffic flow will hopefully minimize visitor use conflicts and make appropriate facilities available to visitors improving health and safety of visitors.

Effects That Would Violate Federal, State, Tribal, or Local Law Protecting the Environment

The selected alternative does not threaten or violate applicable federal, state, or local environmental laws or requirements imposed for the protection of the environment.

5. PUBLIC INVOLVEMENT AND AGENCY CONSULTATION

5.1 Civic Engagement

The public was provided with two review and comment opportunities during the planning process. The National Park Service solicited public comments on a draft of the sustainable low water access plan (draft plan) from November 14, 2022, to January 22, 2023. The National Park Service released the plan/EA and a revised sustainable low water access plan (revised plan) for public review from June 29, 2023, to August 4, 2023. Both virtual and in-person public meetings were held in conjunction with each public comment period. Key issues brought forward during this input included a desire to continue motorized boating access and the important role of concessions and key visitor services they provide and how they contribute to the overall visitor experience at the park. During public scoping, the National Park Service held four public meetings, three in person and one virtually. A total of 1,049 pieces of correspondence were received. Around 550 people attend the in-person meetings, and 250 people attended the virtual meeting. The public scoping comment summary report can be found on the NPS Planning, Environment and Public Comment website (PEPC) at <https://parkplanning.nps.gov/document.cfm?parkID=317&projectID=111766&documentID=128019>.

5.2 Plan/Environmental Assessment Public Comment Period

From June 29, 2023, to August 4, 2023, the National Park Service held a public comment period to receive feedback on the revised plan/EA. A news release was made available to the public on June 29, 2023, that described the purpose and contents of the revised plan/EA. The news release also informed readers on how to submit comments and how to attend a public meeting. In addition to the news release, NPS staff hosted one virtual and two in-person public meetings to provide interested members of the public with an opportunity to learn more about the planning effort and share their ideas. The virtual meeting was held on July 10, 2023; the in-person public meetings were held in Boulder City, Nevada, on July 11, 2023; and the second in-person meeting was held

on July 12, 2023, in Kingman, Arizona. A total of 123 people attended the three public meetings. In addition to the news release, public listening opportunities were posted on the park's Facebook page and on the PEPC website and were recorded and made available for public viewing on the park's YouTube channel.

During the public comment period, the National Park Service received 63 individual correspondences directly on the PEPC website, via e-mail or through US mail correspondence. Comments were received from 50 states; the District of Columbia; two US territories, including Puerto Rico and Northern Mariana Islands; and 17 foreign countries. National Park Service responses to public comments are included in attachment A. No substantive comments were received that resulted in changes to the assessment of impacts or increases in the level of adverse impacts acknowledged in the plan/EA.

5.3 Agency and Tribal Consultation

Under the Endangered Species Act of 1973, as amended, the National Park Service determined that the selected action may affect, but is not likely to adversely affect, the federally listed endangered razorback sucker (*Xyrauchen texanus*) and the federally listed threatened desert tortoise (*Gopherus agassizii*). No actions or new uses are being proposed that would result in additional losses or disturbances of habitat for these species, designated critical habitat, candidate species, or migratory birds. The National Park Service would continue to discuss and consult with the US Fish and Wildlife Service (USFWS) after this plan is completed, including before implementing actions that could affect federally listed species and their habitats. The National Park Service received a response from the USFWS on September 14, 2023, that the USFWS concurs with the National Park Service determination of effect through informal consultation under section 7 of the Endangered Species Act.

The National Park Service also engaged in Tribal consultation. A copy of the plan/EA was sent to the Ak-Chin Indian Community, Chemehuevi Indian Tribe, Colorado River Indian Tribes, Fort McDowell Yavapai Nation, Fort Mojave Indian Tribe, Fort Yuma Quechan Indian Tribe, Gila River Indian Community, Havasupai Tribe, Hopi Tribe, Hualapai Tribe, Kaibab Band of Paiute Indians, Las Vegas Paiute Tribe, Moapa Band of Paiutes, Navajo Nation, Paiute Indian Tribe of Utah, Pueblo of Zuni, Salt River Pima-Maricopa Indian Community, Shivwits Band of Paiutes, Yavapai-Apache Nation, and Yavapai-Prescott Indian Tribe on July 3, 2023. Two virtual Tribal engagement meetings were held, one on July 5, 2023, and the other on July 6, 2023. Tribal representatives shared their concerns about how low water levels have and will continue to impact cultural sites at Lake Mead. The representatives also expressed an interest in having Tribal monitors present for park-implemented mitigation measures and for contractors to take part in cultural sensitivity training before working on construction projects near the different launch ramps.

As a part of consultation, the National Park Service consulted with the State Historic Preservation Office and Tribal Nations to develop an amendment to the 2018 programmatic agreement. The previous programmatic agreement needed to be updated alongside the updates to the plan/EA. The amendment was signed on November 7th, 2023. As presented in the current undertaking, some activities have the potential to have an adverse effect on the park's archeological resources and historic structures. Lake Mead staff seek to take appropriate measures to preserve and protect these resources. These measures, outlined in the programmatic agreement, will necessitate future consultation and assessment of effects before they are conducted.

The National Park Service sent a copy of the plan/EA to the Nevada and the Arizona State Historic Preservation Offices on June 28, 2023, for consultation under section 106 of the National Historic Preservation Act for the selected alternative.

5.4 Finding of No Significant Impact

Based on the information contained in the plan/EA, the National Park Service has determined that the selected action does not constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement will not be required.

This finding is based on consideration of Council on Environmental Quality criteria for significance (40 CFR 1501.3 [b]) regarding the potentially affected environment and degrees of effects of the impacts described in the plan/EA.

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ATTACHMENT A: PUBLIC COMMENT RESPONSE REPORT FOR SUSTAINABLE LOW WATER ACCESS PLAN/ENVIRONMENTAL ASSESSMENT

The National Park Service released the Lake Mead Sustainable Low Water Plan and Environmental Assessment for public review and comment from June 29 through August 4, 2023.

The National Park Service received 63 correspondences from individuals, organizations, federal and state agencies, and gateway communities, which were documented on the NPS Planning, Environment and Public Comment (PEPC) website.

The following are NPS responses to concerns that were raised by commenters on the revised plan and/or environmental assessment. Responses to all substantive comments are included here. Substantive comments are those that

- question, with reasonable basis, the accuracy of the information in the NEPA document;
- question, with reasonable basis, the adequacy of the environmental analysis;
- present reasonable alternatives other than those presented in the NEPA document; or
- cause changes or revisions in the proposal.

In addition, this section includes responses to some non-substantive comments, identified as being of high importance to the public or needing clarification. The page numbers referenced are from the June 2023 revised plan and environmental assessment.

Comment Topic: Several commenters suggested new management actions and strategies that were not considered in the plan/EA, including the following:

- Provide a separate launch ramp for jet skis.
- Provide an NPS-authorized dirt road boat launch in areas where current boat ramps are inaccessible due to water levels.
- Consider providing a shuttle boat service for visitors and constructing new launch ramps at locations that are less environmentally sensitive.
- Increase fees for boat launching.

NPS Response: The plan does not include options for separate launch ramps for jet skis because this action is not financially feasible given the monetary cost associated with expanding the launch area. Additionally, expanding the launch areas to provide separate launch ramps for specific types of watercraft would likely result in additional adverse impacts on both natural and cultural resources; therefore, those actions are not considered or analyzed in the plan/EA.

The selected alternative states the National Park Service would continue to support both motorized and nonmotorized launching from both hard surfaces (launch ramps) and natural surfaces (such as dirt roads) across all locations. Specifically, the selected alternative states the National Park Service would maintain concessioner-operated marinas and improved launching access at Hemenway Harbor, Callville Bay, and Temple Bar and maintain primitive access to the extent feasible at Echo Bay and South Cove.

The National Park Service considered multiple options to provide motorized and nonmotorized lake access opportunities across locations. Considering financial feasibility, topographic and bathymetric constraints, and public comment, the selected alternative would provide a mixture of recreational opportunities, including motorized and nonmotorized lake access, at targeted sites to the degree financially feasible and cost-effective; at Echo Bay and South Cove, NPS staff would maintain primitive visitor access to the extent feasible (page 10 of the plan/EA).

The National Park Service requires an entrance fee to the park and requires an annual boat pass but does not charge additional fees for launching boats at Lake Mead National Recreation Area. The park manages fee dollars in accordance with the Federal Lands Enhancement Act to collect and retain revenue and requires that fee revenue is used to enhance visitor experience. Park managers are in the process of evaluating increases to all fees (entrance, boating and camping) to allow the park to continue to offer the same services due to increased operational costs, but that evaluation is being conducted separately from the plan/EA. Additional fees would also be used to address the park's deferred maintenance backlog. The cost to extend launch ramps and maintain marinas is far in excess of any current or additional fees the park collects.

Comment Topic: Several commenters suggested new management actions and strategies for South Cove that were not considered in the plan/EA, including the following:

- Provide accessible parking at South Cove Point.
- Provide moveable docks that extend out from 50–100 feet and are accessible by wheelchair for anglers at South Cove.
- Provide regular maintenance for the road at South Cove Point.

NPS Response:

- **Provide accessible parking at South Cove Point.** The selected alternative identifies managing for a primitive experience at South Cove (page 13 of the plan/EA). Specifically, the plan states that as topography allows within this area and between 1,035 and 1,070 feet, the National Park Service would continue to support primitive launch access from the end of an NPS-approved road (i.e., South Point). The National Park Service would also continue to support motorized and nonmotorized launching, and no amenities or services would be provided to maintain a primitive experience. The actions described in the selected action would contribute to the desired condition that visitors will continue to have primitive experience opportunities to enjoy the area where the Colorado River meets Lake Mead and embrace the desert in these far stretches at South Cove.

The plan includes actions common to alternatives 1 (preferred) and 2 on pages 16–18 of the plan/EA that the National Park Service identified would be implemented parkwide, including at South Cove. These management strategies and progressions could be implemented if monitoring suggests that desired conditions are not being met. These strategies and actions are in addition to the actions in the alternatives and those mitigation measures found in appendix D of the plan. These actions encourage visitor education, engineering solutions, and/or enforcement

and include actions related to access for a range of recreational opportunities. The National Park Service strives to create accessible opportunities. For more details on the park's physical accessibility initiatives for parking, please see the accessibility self-evaluation and transition plan (SETP) at <https://parkplanning.nps.gov/document.cfm?parkID=317&projectID=88173&documentID=95712>. Because this type of action (provide accessible parking at South Cove Point) is addressed in the SETP, it is not carried forward for analysis in this plan/EA.

- **Provide moveable docks that extend out from 50–100 feet and are accessible by wheelchair for anglers at South Cove.** Access-related actions include (1) evaluating the financial viability of concessioners managing launch ramps and operations with 22 × 75-foot boat size limits, as identified in the Superintendent's Compendium; (2) if the water is rising, the National Park Service will consider using a portable and accessible launching surface built of flexible materials in support of recreation and motorized access; and (3) evaluating and developing reservation options for launching and retrieving boats and combining vessel permits with timed entry options, if necessary.
- **Provide regular maintenance at South Cove Point.** The selected alternative states the National Park Service would provide a mixture of recreational opportunities, including motorized and nonmotorized lake access, to the degree financially feasible and cost-effective. At South Cove, NPS staff would maintain primitive visitor access, to the extent feasible, with no amenities or services (page 13 of the plan/EA). The amount and frequency of maintenance provided for each location will be evaluated at the time of implementation and will be based on various and dynamic factors, including weather, staffing levels, and other variables.

Comment Topic: Several commenters provided suggestions, expressed concerns, and had questions about actions in the plan's preferred alternative specific to Temple Bar. Comments include the following:

- Why do topography constraints prevent the relocation of the Temple Bar launch ramp and marina, as described in the 2019 FONSI?
- Provide motorized and nonmotorized recreational access and opportunities at the Temple Bar Marina.
- The plan/EA has no indication that permanent motorized boat ramps on the Arizona side will be considered.

NPS Response: Previous actions at Temple Bar included repeatedly extending the concrete launch ramp. The launch ramp has been closed due to low water levels since June 2021, and the National Park Service determined that additional launch ramp extensions are not feasible and financially viable. The topography makes it challenging to extend the launch ramp, and paired with financial constraints, extending the launch ramp is not feasible.

The selected alternative provides motorized and nonmotorized recreational access at Temple Bar, as the concessioner would continue to maintain a portable launch ramp (page 13 of the plan/EA) demonstrating efforts to continue providing motorized boating access in Arizona. Page 26 of the plan/EA describes the evaluation of potential launching locations at other areas evaluated in previous planning, such as the 1986 general management plan. Additional launching locations would not achieve the desired conditions for facilities and infrastructure to provide feasibly maintained facilities and infrastructure, as described in chapter 1 of the plan/EA. Due to the cost of extending and relocating launch ramps within the project area and the current cost of maintenance for existing infrastructure, building a new launch ramp at an additional location is not aligned with NPS initiatives and sustainable infrastructure needs. Therefore, evaluating potential locations for new launch ramps was outside the scope of this planning effort and dismissed as an alternative.

Comment Topic: Commenters expressed concerns and uncertainty about statements in the plan/EA regarding funding availability across locations, specifically statements that note “if unable to secure financial resources, the National Park Service would close the marina and launch ramp.” Comments include the following:

- Why is the availability of financial resources only discussed for Temple Bar and not for the other four locations?
- Will the National Park Service maintain the infrastructure and concession operations at other locations and forego construction at Temple Bar?

NPS Response: The selected alternative states that launching will continue to be provided by the concessioner, and that the concessioner could relocate the marina and portable launch ramp to provide access to 950 feet. The National Park Service will evaluate a variety of factors when determining funding at each location to best serve visitors, as well as park resources in response to low water at the park. Further, the following statement in the final plan/EA will be removed: “. . . if unable to secure financial resources, the National Park Service would close the marina and launch ramp.” All actions presented in the alternatives are subject to the National Park Service’s ability to secure financial resources and the financial viability constructability, safety, and operational assessments and technological capabilities at Lake Mead National Recreation Area (page 10 of the plan/EA). See the errata (attachment B) for more details.

Comment Topic: Commenters expressed concerns about how the Estimated Class C Net Construction Costs Summary were developed. Comments include the following:

- Why are the exact values not presented for each location?
- Why are the Temple Bar costs for alternative 1 and alternative 3 the same?
- Could the National Park Service provide a comparison between the construction costs at Temple Bar and Hemenway Harbor?

NPS Response: The National Park Service uses a standardized process to develop Class C cost estimates that includes several factors. The process is not solely based on square footage costs but rather considers similar construction and previous cost estimates from

previous projects at the same location (escalated to 2023 dollars). The estimate includes the complexity, contracting methods, who performs the work, remoteness, quantity, and other factors. All these factors can dramatically change the unit cost of the same item at different locations. The cost estimates for all locations were determined through detailed analysis and evaluation of 2019 cost estimates, then updated with new information and escalated to future dollars. The costs were then rounded to the nearest million in the plan/EA. In addition, the costs include all elements to provide a complete and fully functional facility. Alternative 1 and alternative 3 are approximately \$20 million because they both include work common to all alternatives, a major contributor to the cost and rounded up to the nearest million. So while some of the actions have different costs associated with them, the rounded-up cost is approximately the same.

Comment Topic: Commenters expressed concern for facilities and infrastructure actions at Echo Bay, including the following suggestions and question:

- Leave the original concrete launch ramp in place rather than removing or demolishing it.
- Have the concessioner maintain the ramp similarly to other launch locations.
- What is “minimal NPS maintenance” based on?

NPS Response: Under the selected alternative, the National Park Service will maintain the closure of the existing launch ramp and provide limited access down to 1,000 feet via a primary access road and primitive launch ramp area at Echo Bay (page 11 of the plan/EA). The selected alternative states that National Park Service staff would maintain the primitive launching area, meaning launches on a natural surface and at visitors’ own risk with minimal NPS maintenance compared to other locations. Minimal NPS maintenance compared to other locations refers to the primitive nature of the natural surface for launching compared to paved surfaces at other launch locations that require more maintenance, such as repairing cracking, sealing, and other surface treatments.

The selected alternative does not include the removal of the concrete launch ramp and states that visitor uses can be evaluated if the water levels increase significantly. The preferred alternative states that due to topographic and bathymetric constraints of the lake bottom, primitive launch ramp operations would be closed, not removed, below 1,000 feet. If water levels rise above 1,000 feet, the launch ramp would be opened at the existing location after evaluating for operational and financial feasibility and safety for motorized use.

On page 12 of the plan/EA, the preferred alternative states that NPS staff would evaluate historic structures for removal that are unsafe and no longer needed, noting that some structures contribute to the significance of the Echo Bay Developed Area Historic District. Future compliance may be needed once the National Park Service decides on the future of these structures. The removal of unsafe structures that are no longer needed would contribute to the desired condition that Echo Bay will provide visitors with a primitive experience to enjoy the area and have opportunities for water-based activities in locations minimally maintained by the National Park Service.

The concessioner will be unable to maintain the ramp similar to other launch locations because the launch ramp at Echo Bay is not within the concessioner’s land assignment.

The concessions services are only for land-based services at Echo Bay. Therefore, that action was not considered within the final plan/EA.

Comment Topic: Clarify regulations in the Superintendent's Compendium.

NPS Response: In accordance with regulations and the delegated authority provided in 36 Code of Federal Regulations (CFR) 1–7 (chapter 1), authorized by 54 United States Code (USC) 100751, the following provisions apply to all lands and waters administered by the National Park Service within the boundaries of Lake Mead National Recreation Area. Unless otherwise stated, these regulatory provisions apply in addition to the requirements contained in 36 CFR 1–7 (chapter 1). The Superintendent's Compendium states that private vessels over 75 feet in total length and/or 22 feet total beam are prohibited. The Superintendent's Compendium can be accessed at <https://www.nps.gov/lake/learn/management/superintendent-s-compendium.htm>.

Comment Topic: Commenters questioned the need for an environmental impact statement for the possible removal of facilities or structures. Comments include the following:

- Why was the decision made to conduct an environmental assessment instead of an environmental impact assessment?
- As funding becomes available, the park should review potential future modifications of this environmental assessment through an environmental impact statement.

NPS Response: The National Park Service determined that an environmental assessment was the most appropriate NEPA pathway in accordance with Council on Environmental Quality (CEQ) regulations and criteria established for identifying NEPA pathways in the NPS *NEPA Handbook*. Neither the selected action nor other action alternatives are anticipated to have significant adverse environmental impacts and therefore would not require the preparation of an environmental impact statement as documented in the FONSI ("Mitigation Measures" section). Nor is the proposed action an action that normally requires an environmental impact statement per CEQ regulations or the NPS *NEPA Handbook*. The National Park Service fully analyzed reasonable alternatives that directly address the purpose and need and has included the analysis of context and integrity in the EA. Any removal of facilities or structures would not have significant adverse impacts on resources.

This plan/EA only analyzes actions that are in the reasonably foreseeable future. In the future, if additional strategies and actions are necessary, park managers will complete the appropriate level of environmental compliance at that time. At this time, an environmental impact statement is not anticipated for any future actions, as the National Park Service has not identified any impacts that rise to the level of NEPA significance.

Comment Topic: The Template Bar visitor capacity is the same under alternatives 1 and 2 when those alternatives offer different levels of service.

NPS Response: In appendix B, on page B-21 of the plan/EA, the limiting attributes that most constrain the amounts and types of use at Temple Bar are the same under alternatives 1 and 2. Since the limiting attributes are the same under alternatives 1 and 2, the visitor capacity is the same under both alternatives.

Desired conditions for Temple Bar are the same under alternatives 1 and 2 and include visitor opportunities for water-based recreational experiences that are safe and enjoyable; natural resources are maintained as a scenic viewshed; and natural and cultural resources are protected and preserved as much as possible from recreational pressure, including the landscape around the shorelines. The limiting attribute for Temple Bar is identified as the protection of resources from visitor use, as these resources are exposed due to water elevation decline, and the quality of visitor experience. These natural and cultural resources could continue to be exposed as water levels decline under both alternatives 1 and 2. As the limiting attribute, natural and cultural resources constrain the area's ability to accommodate high levels of use while maintaining desired conditions for restoration of shoreline landscapes to support desert ecosystems while providing visitors with safe and reliable access to water-based recreation experiences under both alternatives 1 and 2. The quality of visitor experience is affected by concentrated use that leads to congestion and longer wait times under alternative 1 and is affected by lack of available facilities and extreme temperatures under both alternatives 1 and 2. For these reasons, visitor capacity is 80 people at one time for mixed recreational use under both alternatives 1 and 2.

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ATTACHMENT B: ERRATA INDICATING TEXT CHANGES TO THE ENVIRONMENTAL ASSESSMENT

INTRODUCTION

This errata documents changes (corrections and minor revisions) to the text of the environmental assessment because of comments received on the environmental assessment (EA) during the public review process, as well as other corrections.

Original text from the environmental assessment is included to provide context and to allow for comparison to the text change. Additions to text are underlined, and deleted text is shown by strikeout.

ERRATA FOR THE ENVIRONMENTAL ASSESSMENT

Page 5, Diminished Quality of the Visitor Experience states: In times of ~~extreme~~ low water, the temporal closures at some locations have led to long wait times and uncertain opportunities to access the water, exacerbated by warmer ~~extreme~~ temperatures and minimal facilities.

Remove *extreme* and add *exacerbated by warmer* for clarity on how warmer temperatures and minimal facilities contribute to uncertain conditions.

Page 11, Echo Bay Launch Ramps and Marinas states: National Park Service staff would maintain the primitive launching area, allowing visitors' to launch at their own risk with minimal NPS maintenance compared to other locations.

Pages 13, 24 and 37, Temple Bar state: If needed, the concessioner could relocate the marina and portable launch ramp to provide further access to 950 feet.

Page 14, Temple Bar, under Facilities and Services, lacks information about water levels rising.

Add: If water levels rise above approximately 1,070 feet, the National Park Service would open the concrete launch ramp in its current location within Temple Bar.

Page 24, Table 5. Summary of Alternatives at Temple Bar, row one:

~~If unable to secure financial resources, the National Park Service would close the marina and launch ramp~~

Page 34, Temple Bar, states: ~~Little to no~~ some nonmotorized recreational use occurs at Temple Bar, such as paddleboarding, swimming, or fishing.

Page 63 states: The National Park Service has worked with the US Fish and Wildlife Service to develop mitigation to reduce or eliminate potential adverse impacts on desert tortoises from construction activities. Examples of such mitigation include clearly marking construction limits, surveying construction areas, ~~relocating tortoises outside the construction area~~, educating construction personnel about tortoises, instituting a litter-control program, and surveying. ~~or handling of tortoises by a qualified biologist~~. Please refer to appendix D for a complete description of mitigation measures.

Page 64, the affected environment for desert tortoise, states: The USFWS identified biological and physical features that are essential to the desert tortoise's conservation, including sufficient space to support viable populations within each recovery unit and to provide for movement, dispersal,

and gene flow; sufficient quality and quantity of forage species and the proper soil conditions to provide for the growth of these species; suitable substrates for burrowing, nesting, and overwintering; burrows, caliche caves, and other shelter sites; sufficient vegetation for shelter from warmer temperatures ~~extremes~~ and predators; and habitat protected from disturbance and human-caused mortality.

Appendix B: Visitor Use Monitoring Strategy and Visitor Capacity

Page B-12, the Review (of) Existing Direction and Knowledge for Hemenway Harbor, states: ~~The extreme~~ ~~Low~~ water levels have led to concentrated visitor use at Hemenway Harbor because it is the only NPS concrete launch ramp that remains accessible and functional for recreational motorized boat access to Lake Mead at this time.

Page B-12, the Review (of) Existing Direction and Knowledge for Hemenway Harbor, states: The concentrated use, congestion, longer wait times, ~~extreme temperatures~~, and lack of facilities available while waiting to launch motorized vessels at Hemenway Harbor lead to an increase in visitor conflicts and compromises visitor and employee safety/well-being.

Page B-12, Identify the Limiting Attribute(s) for Hemenway Harbor Alternative 1, states: The quality of visitor experience is affected by concentrated use that leads to congestion and longer wait times, exacerbated by a lack of available facilities while waiting to launch and ~~extreme temperatures~~; the relocation of facilities, which will lead to physically less space for launching with lowering water and challenging topography; and the changing circulation and congestion both on land and on water.

Page B-17, Review (of) Existing Direction and Knowledge for Callville Bay, states: Former operations and relocating the launch and marina are not feasible with such ~~extreme~~ low water levels.

Page B-20, Review (of) Existing Direction and Knowledge for Temple Bar, states: Operating and relocating the concrete launch ramp are not feasible with such ~~extreme~~ low water levels.

Page B-21, Identify the Limiting Attribute(s) for Temple Bar, states: The quality of visitor experience, is affected by concentrated use that leads to congestion and longer wait times, and exacerbated by lack of available facilities while waiting to launch. ~~and extreme temperatures.~~

Page B-21 states: With new opportunities for motorized vessel launching, visitor use and congestion would increase, which increases recreational pressure on the natural and cultural resources of the area, which continue to be exposed as water ~~elevations~~ levels decline.

Appendix D: Mitigation Measures and Best Management Practices

Page D-2 states: The US Fish and Wildlife Service field office staff are aware that NPS staff will undertake actions described in the conservation measures here (~~e.g., relocation of tortoises~~) and do not require that NPS staff make contact before taking conservation measures. The following actions are possible conservation measures NPS staff could take to minimize impacts on resources:

Page D-5, 2nd bullet, states: During seasons when desert tortoises are less active and when a USFWS-authorized biologist is not present on-site, park staff will consult with a designated authorized desert tortoise biologist. ~~If there is not an approved biologist on the project site, the~~

~~contractor must contact NPS staff to have the desert tortoise removed unless there is imminent danger at the project site.~~

Page D-5: 4th bullet, states: Though desert tortoises are not likely to be encountered within the immediate areas involved in the proposed actions, these project areas would be surveyed by a qualified USFWS-authorized biologist for desert tortoises and their burrows and dens, immediately prior (within 24 hours) to the onset of construction in any given area. ~~The results of the surveys would be to remove all desert tortoises currently on the project site and identify all burrows that may be avoided during construction. All desert tortoise surveys, handling of desert tortoises, and burrow excavation would be performed by a qualified or authorized biologist.~~

Page D-5: 5th bullet, states: If a desert tortoise is encountered at the work site, the contractor must cease work and the desert tortoise will be allowed to move on its own to a safe distance away prior to resuming work, including moving vehicles. ~~If a desert tortoise is found within the project area, all work in the site must cease until the desert tortoise moves outside the project area or is relocated outside the project by an authorized biologist. Tortoises manually relocated will be placed in the direction they were heading to minimize the possibility that the desert tortoise will reenter the project site.~~

Page D-5: 7th bullet, states: Though desert tortoises are not likely to be encountered within the immediate areas involved in the proposed actions, should desert tortoise burrows be encountered, they will be avoided. A desert tortoise-proof fence will be placed at a minimum of 20 feet from the burrow on sides bordered by construction, to prevent crushing of underground portions of the burrow. The fencing will remain in place until construction in the vicinity is completed. Placement, inspection, and removal of fencing will occur under the direction of a USFWS-authorized desert tortoise biologist.

Page D-5: 8th bullet, states: ~~Desert tortoise burrows found within the project area would be avoided if possible. They would be protected with desert tortoise-proof fence, placed at a minimum of 20 feet from the burrow on sides bordered by construction, to prevent crushing of underground portions of the burrow. The fencing would remain in place until construction in the vicinity was completed. The placement, inspection, and removal of fencing would occur under the direction of a qualified biologist. Burrows found in line with planned work that could not be avoided without redesigning the project would be excavated by hand. If the burrows are occupied, the tortoises would then be relocated in reconstructed burrows outside of the project footprint.~~

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ATTACHMENT C: DETERMINATION OF NON-IMPAIRMENT

The NPS Organic Act of 1916 directs the National Park Service to “conserve the scenery, natural, and historic objects, and wildlife in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wildlife in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (54 USC 100101). National Park Service *Management Policies 2006*, section 1.4.4, explains the prohibition on impairment of park resources and values:

While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the National Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

An action constitutes impairment when its impacts “harm the integrity of park resources or values, including the opportunities that otherwise will be present for the enjoyment of those resources or values” (NPS 2006, section 1.4.5). To determine impairment, the National Park Service must evaluate the “particular resources and values that will 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. An impact on any park resource or value may constitute impairment, but 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 establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- identified in the park’s general management plan or other relevant NPS planning documents as being of significance” (NPS 2006, section 1.4.5).

Resources that were carried forward for detailed analysis in the environmental assessment, and for which a non-impairment determination has been made, include terrestrial and aquatic vegetation, federally listed species, and Fairweather Range Ethnographic Resources/Traditional Cultural Properties/Cultural Landscape. A non-impairment determination is not necessary for visitor use and experience, solitude or primitive and unconfined recreation quality of wilderness character, or undeveloped quality of wilderness character because these impact topics are not generally considered a park resource or value subject to the non-impairment standard (see NPS 2006, section 1.4.6).

NATURAL RESOURCES – TERRESTRIAL AND AQUATIC VEGETATION

Terrestrial and aquatic vegetation and federally listed species are fundamental to the purpose of establishing Lake Mead National Recreation Area. Under the selected alternative, as water is depleted, new shoreline areas expose new niches for weedy herbaceous vegetation and aggressive

shrubs and trees. Patterns of disturbance to terrestrial vegetation and soils along the shorelines, which includes the project areas, include the initial construction and establishment of the reservoir and later, construction activities that establish roads, parking areas, marinas, and docks, to support subsequent decades of recreational use of the reservoirs. Soils and vegetation in the project areas have been compacted by decades of boat launch, vehicle, and pedestrian activities, which have steadily moved downslope to follow the receding shorelines. Similarly, parking areas to support visitors and heavy construction equipment staging and movement have compacted soils and denuded terrestrial vegetation where these activities have occurred. Native terrestrial and aquatic vegetation is supported by generally high water quality, though warming temperatures along shoreline waters threaten the conditions that support natural communities.

Implementing the selected alternative, such as activities to extend or relocate launch ramps and constructing new access roads, could result in the loss or degradation of terrestrial and aquatic vegetation and soil conditions. Impacts from the selected alternative could also result in damage to previously undisturbed, lesser disturbed, or previously recovered terrestrial vegetation due to the movement of equipment and vehicles between staging areas and project sites. Overall impacts on native terrestrial and aquatic vegetation would continue to be adverse under the selected alternative and would not substantially change impacts that are already occurring. Mitigation measures under the selected alternative would minimize negative effects to soils and vegetation in these areas. Best management practices for controlling soil erosion—such as installing silt fences, retaining and replacing topsoil, salvaging seeds or plants, and revegetating sites with native species—have been implemented to reduce runoff and soil loss from construction sites and facilitate the reestablishment of native vegetation. The ongoing enforcement of regulations covering discharges from boats at project sites is expected to help minimize hydrocarbons, harmful chemicals, and boats contaminated with weedy, invasive plant species originating from marina operations.

NATURAL RESOURCES – FEDERALLY LISTED SPECIES

For federally listed species, the National Park Service determined and the US Fish and Wildlife Service concurred that the selected action may affect, but is not likely to adversely affect, the federally listed endangered razorback sucker (*Xyrauchen texanus*) and the federally listed threatened desert tortoise (*Gopherus agassizii*). No actions or new uses are being proposed that would result in additional losses or disturbances of habitat for these species, designated critical habitat, candidate species, or migratory birds.

Overall, given the mitigation measures implemented for any actions, the selected alternative will not result in impairment to Lake Mead National Recreation Area's natural resources.

CULTURAL RESOURCES

Archeology, cultural landscapes and historic structures, and history and cultural anthropology are all fundamental resources and values of Lake Mead National Recreation Area. Under the selected alternative, historic buildings and structures in both the Echo Bay Developed Area Historic District and the Temple Bar Developed Area Historic District may be identified for demolition. The removal of buildings and structures in either district would result in a change to the district's eligibility for listing in the National Register of Historic Places. Demolition would constitute an adverse effect under section 106 but would not represent a significant impact under NEPA, as neither district possesses national significance. Mitigation measures, including

consultation with the Arizona and Nevada State Historic Preservation Offices and Tribal Nations and the conducting of cultural resource surveys, will minimize the impacts on archeological resources and the historic districts. Overall, given the mitigation measures implemented for any action, the selected alternative will not result in impairment, with no cumulative effects, to Lake Mead National Recreation Area's cultural resources.

SUMMARY

The National Park Service has determined that the implementation of the selected alternative will not constitute impairment of the resources of the park. This conclusion is based on consideration of the park's purpose and significance, a thorough analysis of the environmental impacts described in the environmental assessment, comments provided by the public and others, and the professional judgment of the decision-maker guided by the direction in *NPS Management Policies 2006*.

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