
5.0 Management Practices, Monitoring, and Mitigation

Environmental Impact Statement
Fallon Range Training Complex Modernization
TABLE OF CONTENTS

5 MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-1

5.1 INTRODUCTION5-1

5.1.1 OVERVIEW5-1

5.1.2 APPROACH5-1

5.1.3 MANAGEMENT PRACTICES5-2

5.1.4 MONITORING5-2

5.1.5 MONITORING REPORTING AND TRACKING5-2

5.1.6 MITIGATION5-2

5.2 GEOLOGICAL RESOURCES5-3

5.2.1 CURRENT MANAGEMENT PRACTICES5-3

5.2.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-3

5.3 LAND USE5-4

5.3.1 CURRENT MANAGEMENT PRACTICES5-4

5.3.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-4

5.4 MINING AND MINERAL RESOURCES5-4

5.4.1 CURRENT MANAGEMENT PRACTICES5-4

5.4.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-4

5.5 LIVESTOCK GRAZING.....5-5

5.5.1 CURRENT MANAGEMENT PRACTICES5-5

5.5.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-5

5.6 TRANSPORTATION.....5-6

5.6.1 CURRENT MANAGEMENT PRACTICES5-6

5.6.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-6

5.7 AIRSPACE.....5-6

5.7.1 CURRENT MANAGEMENT PRACTICES5-6

5.7.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-6

5.8 NOISE5-7

5.8.1 CURRENT MANAGEMENT PRACTICES5-7

5.8.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-7

5.9 AIR QUALITY5-8

5.9.1 CURRENT MANAGEMENT PRACTICES5-8

5.9.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-8

5.10 WATER RESOURCES.....5-9

5.10.1 CURRENT MANAGEMENT PRACTICES5-9

5.10.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-10

5.11 BIOLOGICAL RESOURCES.....5-11

5.11.1 CURRENT MANAGEMENT PRACTICES5-11

5.11.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION.....5-11

5.12 CULTURAL RESOURCES	5-12
5.12.1 CURRENT MANAGEMENT PRACTICES	5-12
5.12.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION	5-12
5.13 RECREATION	5-13
5.13.1 CURRENT MANAGEMENT PRACTICES	5-13
5.13.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION	5-13
5.14 SOCIOECONOMICS	5-14
5.14.1 CURRENT MANAGEMENT PRACTICES	5-14
5.14.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION	5-14
5.15 PUBLIC HEALTH AND SAFETY	5-15
5.15.1 CURRENT MANAGEMENT PRACTICES	5-15
5.15.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION	5-15
5.16 ENVIRONMENTAL JUSTICE	5-15
5.16.1 CURRENT MANAGEMENT PRACTICES	5-15
5.16.2 PROPOSED MANAGEMENT PRACTICES, MONITORING, AND MITIGATION	5-16

List of Figures

There are no figures in this chapter.

List of Tables

There are no tables in this chapter.

5 Management Practices, Monitoring, and Mitigation

5.1 Introduction

5.1.1 Overview

National Environmental Policy Act regulations require that an Environmental Impact Statement (EIS) include discussion of measures where required as a means to mitigate adverse environmental impacts. The intention of mitigation is to reduce the adverse effects of an action on the environment. Council on Environmental Quality regulations (40 Code of Federal Regulations 1508.20) identify five ways to reduce or mitigate the severity or intensity of adverse impacts:

- Avoiding the impact altogether
- Minimizing impacts
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
- Compensating for the impact by replacing or providing substitute resources or environments

This chapter will focus on management practices, monitoring, and mitigation measures that are proposed to reduce impacts associated with the Proposed Action. Management practices, monitoring, and mitigation measures that were established in Chapter 5 of the *2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement* will be carried forward in this EIS. These mitigation measures generally aim to reduce impacts from training activities that would extend to the proposed expansion areas, and brief descriptions of continued practices are provided in their relevant resource sections.

5.1.2 Approach

The process of identifying ways to reduce the potentially adverse environmental effects of the Proposed Action started early in the planning process for the proposed range modernization and will continue through preparation of the Final EIS. For example, several existing Navy environmental programs and plans include established procedures, practices, or management actions that would restore, reduce, or eliminate perceived environmental risks of the Proposed Action, such as the *Integrated Natural Resources Management Plan* (INRMP) for Naval Air Station (NAS) Fallon. In accordance with the Department of Defense and United States (U.S.) Department of the Navy (Navy) policies, these plans are reviewed and revised on a regular basis, and would be updated to reflect changes at the FRTC if the Proposed Action were to be implemented.

This chapter incorporates current resource protection measures such as standard operating procedures (SOPs) and management practices that are integral to the activities covered by the Proposed Action and its alternatives. A management practice may encompass the installation of structural devices or the implementation of non-structural practices or activities, prohibitions of practices, operating procedures, maintenance procedures, and/or other management techniques. The Navy also currently employs SOPs to provide for the safety of personnel and equipment, as well as the success of the training and testing activities. In many cases, SOPs result in incidental environmental, socioeconomic, and cultural benefits, but they serve the primary purpose of providing for safety and mission success, and are implemented

regardless of their secondary benefits. Implementation of both management practices and SOPs has been considered in the environmental analyses for each resource.

In addition to existing management practices or SOPs that would be applied if the analysis identified potential adverse impacts on a resource from implementing the No Action or action alternatives, the Navy identified methods to minimize or mitigate those impacts through coordination with cooperating agencies, where appropriate and practicable. Cooperating agencies and stakeholders were solicited for potential mitigation or management actions through meetings and the public scoping process, and the Navy evaluated the suggestions against compatibility with military training activities and range safety. The Navy conducted several mitigation working group meetings with Cooperating Agencies to discuss their concerns as well as the feasibility of their suggested management practices or mitigations. The Navy will continue to work with cooperating agencies and stakeholders between the Draft and Final EIS to refine or augment mitigation methods to reduce potential impacts.

5.1.3 Management Practices

Environmental management practices are policies, procedures, or plans that aim to preserve the environment or the integrity of the ranges. Management practices are implemented to reduce the impacts that projects can generally have on their surrounding environment. For instance, having fuel spill procedures and safeguards or posting speed limits reduce impacts that a project could have on various resources within their region of influence, such as public health and safety and geological resources. Many management practices are detailed in the INRMP.

5.1.4 Monitoring

Environmental monitoring involves systematic sampling of physical and biological resources to derive knowledge of the environment, its resources, and processes or activities that affect them. Monitoring can be conducted for a number of purposes, including establishing environmental baselines and trends, informing decision-making for management actions, assessing the effects of natural and human influences, assessing the effectiveness of management practices and mitigation measures, and ensuring compliance with environmental regulations. Monitoring is an important component of the Navy's natural resources management strategy implemented under the INRMP for NAS Fallon (U.S. Department of the Navy, 2014a). Necessary updates to the INRMP and associated monitoring programs would be accomplished during routine annual reviews conducted in cooperation with the U.S. Fish and Wildlife Service (USFWS) and the Nevada Department of Wildlife. This process will help to ensure that a comprehensive and consistent approach to monitoring is accomplished for the Navy-managed lands at the FRTC.

5.1.5 Monitoring Reporting and Tracking

Monitoring results will inform coordination with regulatory agencies to ensure only effective measures are employed. They will facilitate adaptive management efforts, and help to track completion of measures the action proponent has committed to implement in an environmental planning decision document.

5.1.6 Mitigation

Mitigation measures are put in place to reduce specific impacts that a project could have on a particular resource, replace the impacted resource, or relocate threatened resources to a new location. These measures are not found in planning documents such as the INRMP because they are specific to an action, while the INRMP is usually developed for the entire facility and all of the activities that occur.

5.2 Geological Resources

5.2.1 Current Management Practices

The following management practices would continue to be implemented on the FRTC to avoid and minimize potential impacts on geological resources under Alternatives 1, 2, and 3:

- Incidental fuel spills would be avoided during training by conducting all refueling activities in a secondary containment area.
- Drip pads would be placed under equipment when parked to avoid soil contamination from leaking fluids.
- Range condition assessment five-year reviews would continue to be conducted, and appropriate steps would be taken, if necessary, to prevent or respond to a release or substantial threat of a release of munitions constituents of potential concern to off-range areas that would pose unacceptable risks to human health or the environment.
- Wind and water erosion would be minimized by adhering to standard operating procedures for vehicles on existing roads and two-track trails (unless otherwise noted in standard operating procedures or in the event of emergency).

5.2.2 Proposed Management Practices, Monitoring, and Mitigation

5.2.2.1 Proposed Management Practices

The following management practices are proposed for implementation on the FRTC to avoid and minimize potential impacts on geological resources under Alternatives 1, 2, and 3:

- Construction personnel would stay within established corridors.
- Construction personnel would follow posted speed limits. The maximum speed limit on FRTC bombing ranges is 35 miles per hour unless otherwise posted.
- The Paiute Pipeline and State Route 839 (Alternatives 1 and 2) or State Route 361 (Alternative 3) would be sited to avoid prime or unique farmland or farmland of statewide or local importance.
- Pedestrian field surveys would be conducted by a qualified and Bureau of Land Management (BLM)-permitted paleontologist prior to any surface grading or excavation in areas of high (Class 4), very high (Class 5), or unknown (Class U) fossil yield potential. A partial survey may be conducted by a BLM-permitted paleontologist in areas with moderate potential (Class 3) or in other areas potentially sensitive to fossil resources.
- If there were an unanticipated discovery of potential paleontological resources, surface-disturbing activities would cease in the immediate area of the discovery until the significance of the discovery can be analyzed, notification to proceed is received, and the appropriate BLM office has been notified. Once the extent and potential significance of the paleontological resources on the site has been determined, appropriate mitigation measures for further site development may be developed.

5.2.2.2 Proposed Monitoring

In addition to the measures outlined in the *2015 Military Readiness Activities at Fallon Range Training Complex, Nevada Final Environmental Impact Statement* (U.S. Department of the Navy, 2015), such as range condition assessment five-year reviews, the following monitoring measures would be implemented:

- A qualified paleontological monitor would monitor any construction action that requires grading or excavation and is located in an area of high (Class 4) or very high (Class 5) fossil yield potential, or within any area where field surveys have identified fossil occurrences.

5.2.2.3 Proposed Mitigation

No mitigation measures are warranted for soils based on the analysis presented in Section 3.1.3 (Environmental Consequences), implementation of current management practices, and implementation of proposed management practices.

5.3 Land Use

5.3.1 Current Management Practices

Policies and procedures, such as coordinating with other federal agencies or counties, would continue to be implemented to avoid or minimize land use conflicts.

5.3.2 Proposed Management Practices, Monitoring, and Mitigation

5.3.2.1 Proposed Management Practices

No additional management practices are warranted for land use based on the analysis presented in Section 3.2.3 (Environmental Consequences).

5.3.2.2 Proposed Monitoring

No monitoring measures are warranted for land use based on the analysis presented in Section 3.2.3 (Environmental Consequences).

5.3.2.3 Proposed Mitigation

Mitigation measures are warranted for land use. Based on the analysis presented in Section 3.2.3 (Environmental Consequences), it is recommended that the Navy revise their range operations manual to include the following locations as noise-sensitive areas:

- Due to the extension of Military Operating Areas in the eastern portion of the FRTC Special Use Airspace (SUA), implement the five nautical mile and 3,000 feet above ground level buffer around the towns of Crescent Valley and Eureka.

5.4 Mining and Mineral Resources

5.4.1 Current Management Practices

The Navy does not have any current mineral resources and mining management practices for the FRTC region of influence.

5.4.2 Proposed Management Practices, Monitoring, and Mitigation

Alternative 2 and Alternative 3 incorporate mitigation by proposing to allow geothermal development and mining activities to continue on certain withdrawn areas as long as the actions are consistent with training activities and approved by the Navy.

Under Alternatives 2 and 3 the Navy would allow salable mining activities and, subject to conditions established in conjunction with BLM leasing procedures, would allow geothermal development west of State Route 121 as managed under the Geothermal Steam Act of 1970.

The Navy is currently proposing the following required design features for geothermal development:

- Expand Rights of Way (ROW) only on west side of current transmission corridor (as close to current line as possible)
- Construct underground transmission line connection from facility to existing transmission line ROW along State Route 121
- Use compatible lighting with downward facing shades, lighting with frequency that doesn't "wash out" night-vision devices
- Coordinate with Navy on frequency spectrum
- Use cooling towers and other structures no higher than 40 feet
- Avoid steam field piping blocking current access roads to/from State Route 121 and canyon areas
- Avoid photovoltaic solar/geothermal hybrid design

5.5 Livestock Grazing

5.5.1 Current Management Practices

Policies and procedures in the NAS Fallon INRMP would continue to be implemented to avoid conflicts with livestock grazing. One of these procedures included routine monitoring of the fence lines surrounding potentially hazardous areas to ensure that the fence is secure and cannot be crossed by people or animals.

5.5.2 Proposed Management Practices, Monitoring, and Mitigation

5.5.2.1 Proposed Management Practices

The following management practices are proposed to avoid or minimize potential impacts on livestock grazing for Alternatives 1, 2, and 3:

- The Standard Operating Procedures for handling cattle on the FRTC training ranges would be revised and implemented.
- Livestock friendly erosion controls (e.g., aspen or synthetic wattles) should be used when performing construction activities on or adjacent to grazing land that is actively being used.
- The Navy would continue to work with the local counties and municipalities as well as federal property land managers to plan for compatible grazing beneath FRTC SUA, which would include the BLM; USFWS; U.S. Forest Service, Bureau of Reclamation, and Churchill, Elko, Eureka, Lander, Lyon, Mineral, Nye, Pershing, and Washoe Counties.

5.5.2.2 Proposed Monitoring

The Navy would expand their fence line monitoring and maintenance procedures to include fences that are on withdrawn lands. The Navy would propose to hire two Conservation Law Enforcement Officers at NAS Fallon to accommodate monitoring of the added fence line.

5.5.2.3 Proposed Mitigation

No mitigation measures are proposed for livestock grazing based on the analysis presented in Section 3.4.3 (Environmental Consequences). Though not a National Environmental Policy Act mitigation measure, the Navy acknowledges that it has the authority under 43 United States Code section 315q of the Taylor Grazing Act of 1934, as amended, to make payments to federal grazing permit holders for

losses suffered by the permit holders as a result of the withdrawal or other use of former federal grazing lands for war or national defense purposes.

5.6 Transportation

5.6.1 Current Management Practices

The Navy does not have any current requirements or management practices for ground transportation.

5.6.2 Proposed Management Practices, Monitoring, and Mitigation

5.6.2.1 Proposed Management Practices

The Navy has responsibility for planning, designing, permitting, funding and constructing any realignment of highways. The Navy would coordinate with Nevada Department of Transportation during each of these phases. The Navy has submitted a request to utilize the Defense Access Roads program. If approved, the Navy would coordinate construction execution through the Federal Highway Administration.

5.6.2.2 Proposed Monitoring

No monitoring measures are warranted for transportation based on the analysis presented in Section 3.5.3 (Environmental Consequences). The Navy proposes to continue to work with ROW users to review potential impacted roads regarding county-designated access roads and other potential ROWs in the lands requested for withdrawal or proposed for acquisition and to look for appropriate replacement routes if appropriate and applicable.

5.6.2.3 Proposed Mitigation

No mitigation measures are warranted for transportation based on the analysis presented in Section 3.5.3 (Environmental Consequences).

5.7 Airspace

5.7.1 Current Management Practices

The Navy would continue current levels of operations, and manage all facets of the FRTC airspace under the guidance of official policies, procedures, and Navy instructions.

5.7.2 Proposed Management Practices, Monitoring, and Mitigation

5.7.2.1 Proposed Management Practices

The Navy would continue to implement policies and procedures to avoid airspace conflicts (U.S. Department of the Navy, 2014b). Specifically, the Navy would:

- Maintain a close working relationship with the Federal Aviation Administration (FAA) in the management of the FRTC SUA, following FAA publication guidance that would fully support the final modernization configuration of the FRTC SUA.
- Continue a proactive outreach to civil and commercial aviation to ensure safe and efficient transit across the FRTC via the Visual Flight Rules Corridor, as well as the safe and efficient managed access and civil flight profiles within the FRTC SUA.
- Ensure that the NAS Fallon Airfield Operations Manual is maintained with the most current airspace information, restrictions, and compliance requirements.
- Avoid Q routes to the maximum extent possible.

5.7.2.2 Proposed Monitoring

No monitoring measures are warranted for airspace based on the analysis presented in Section 3.6.3 (Environmental Consequences).

5.7.2.3 Proposed Mitigation

NAS Fallon would update the NAS Fallon Airfield Operations Manual to reflect Naval Aviation Warfighting Development Center operational guidance on noise sensitive areas, and confirmation of FAA airport exclusion area guidelines, for the proposed action.

5.8 Noise

5.8.1 Current Management Practices

Activities at the FRTC comply with numerous established acoustic control procedures to ensure that neither participants nor non-participants engage in activities that would endanger life or property. Aircraft SOPs are largely oriented toward safety, which also provide significant noise abatement benefits. For example, many SOPs involve flight routing and minimum altitudes. Each of these procedures increases the range of the noise source from human receptors, thus reducing noise impacts. As stated in Chapter 18 of Chief of Naval Operations Instruction (OPNAVINST) 5100.23, *Navy Safety and Occupational Health Program Manual*, noise control and abatement programs are developed to minimize noise impacts whenever practicable through implementation of operational alternatives that do not degrade mission requirements or aircraft safety.

Navy occupational noise exposure prevention procedures are required at the FRTC for those military personnel who might be exposed to occupational hearing hazards (e.g., military aircraft operations or land detonations) to meet all applicable Occupational Safety and Health Administration and Navy occupational noise exposure regulations. As these measures are designed to minimize occupational hearing hazards, there is no risk of hearing impacts from occupational noise exposure.

Additionally, there are a number of noise-sensitive areas that are shown in Figure 3.7-2 either as coordinate points or areas defined by buffers from coordinate points. Pilots overflying these areas are instructed to maintain altitudes of no lower than 3,000 feet above ground level.

Current policies and procedures to ensure proper use of the FRTC SUA and munitions release rules would continue to be implemented. The Air Operations Office logs noise complaints at NAS Fallon. The office records information about the time, location, and nature of the complaint; and initiates investigation of what airspace operations were occurring. If the caller requests, range personnel will follow up with a return phone call to explain the resolution of the complaint.

5.8.2 Proposed Management Practices, Monitoring, and Mitigation

5.8.2.1 Proposed Management Practices

Existing policies and procedures to ensure proper use of the FRTC airspace and munitions release rules would continue to be implemented. No additional management practices are warranted for noise based on the analysis presented in Section 3.7.3 (Environmental Consequences).

5.8.2.2 Proposed Monitoring

No specific monitoring measures are warranted for noise based on the analysis presented in Section 3.7.3 (Environmental Consequences).

5.8.2.3 Proposed Mitigation

Based on the analysis presented in Section 3.7.3 (Environmental Consequences), it is recommended that the Navy revise their range operations manual to include the following locations as noise-sensitive areas. Due to the extension of Military Operating Areas in the eastern portion of the FRTC SUA, implement the five nautical mile buffer around the towns of Crescent Valley and Eureka.

Additionally, the Navy is proposing to implement an airspace exclusion area over Gabbs airport. Though established for airspace separation, this will serve as an additional means to reduce low-level overflights near Gabbs.

5.9 Air Quality

5.9.1 Current Management Practices

Management practices for construction activities are developed on a project-to-project basis. Therefore, there were no management practices that were already in place that are applicable to the Proposed Action.

5.9.2 Proposed Management Practices, Monitoring, and Mitigation

5.9.2.1 Proposed Management Practices

The primary proposed management practice is dust control. Strategies for dust control are described in the NAS Fallon Dust Control Plans and would continue to be implemented under the Action Alternatives. Specific measures, using best practical methods available for dust suppression, would include, but would not be limited to, the following approaches and procedures:

- Phasing of Surface Area Disturbance activities (grading/leveling and shoulder dragging) would occur, reducing the amount of area that is disturbed at a single time.
- Water trucks may be used for water spraying.
- Whenever possible, Surface Area Disturbance activities shall be scheduled immediately following periods of precipitation. Operations may be suspended when winds (or other meteorological conditions) make fugitive dust control difficult.
- Equipment used by military units in the region of influence, including construction equipment, is properly maintained in accordance with applicable Navy requirements. Operating equipment meets federal and state emission standards, where applicable.
- Generation of dust would be minimized by adhering to standard operating procedures to operate vehicles on existing roads and two-track trails (unless otherwise noted in standard operating procedures or in the event of emergency).
- Vehicles participating in construction activities that occur on unpaved surfaces would minimize fugitive dust generation implementing traffic control measures, including vehicle speed controls (not to exceed 15 miles per hour). Restrictions on non-project vehicles may also be imposed in affected areas during Surface Area Disturbance activities.
- Any visible material tracked from Surface Area Disturbance locations onto adjoining paved roads shall be promptly removed.
- A designated on-base facility with wash racks and water hoses will be made available to clean equipment and machinery as needed.

- The need for additional dust abatement measures would be determined on a case-by-case basis during pre-construction planning with input from the NAS Fallon Environmental Division. Factors considered in determining the need for additional dust abatement include the locations and duration of the exercise; the number of vehicles involved in the exercise; soil moisture conditions prior to the exercise; and predicted precipitation, wind speed, and wind direction during the exercise.

5.9.2.2 Proposed Monitoring

No monitoring measures are warranted for air quality based on the analysis presented in Section 3.8.3 (Environmental Consequences).

5.9.2.3 Proposed Mitigation

No mitigation measures are warranted for air quality based on the analysis presented in Section 3.8.3 (Environmental Consequences).

5.10 Water Resources

5.10.1 Current Management Practices

The following requirements and management practices apply to water resources at the FRTC:

- Incidental spills that could contaminate groundwater are avoided and minimized. Navy personnel receive initial and periodic refresher training in the proper storage, handling, and management of hazardous materials.
- Potential groundwater contamination issues are addressed in the range condition assessment and subsequent five-year reviews, in accordance with the Range Sustainability Environmental Program Assessment Policy implementation.
- The FRTC has an operational range clearance plan in compliance with Department of Defense Directive 4715.11, *Environmental and Explosives Safety Management*. The operational range clearance plan provides for safe management and removal of unexploded ordnance, and recycling of training munitions, munitions debris, and range scrap that has been rendered safe.
- Ground training activities avoid streams, ponds, and U.S. Army Corps of Engineers' jurisdictional wetlands.
- Incidental fuel spills would be avoided by conducting all refueling activities in a secondary containment area.
- Drip pads would be placed under equipment when parked to avoid soil contamination from leaking fluids.
- A spill prevention, control, and countermeasures plan would be developed if quantities of fuel or other petroleum products above the spill prevention, containment, and countermeasures quantity threshold were stored. The plan would help to ensure rapid and effective response to incidental spills and avoid contaminant migration to groundwater.
 - If any such spill were to exceed reportable quantities as defined by the U.S. Environmental Protection Agency for regulated material, the event would be immediately reported to the appropriate regulatory authorities. All spills that are 5 gallons or more are reportable to the NAS Fallon environmental department. If a spill

would meet any of the following criteria, it would be reported to the state within one working day:

- Released to the soil or other surfaces of land in a quantity greater than 25 gallons or 200 pounds;
 - Discovered in at least 3 cubic yards of soil during any subsurface excavation;
 - Discovered in or on ground water; or
 - A confirmed release from an underground storage tank.
- The operational range clearance plan would be updated and implemented to address any new requirements for the ranges.
 - Range condition assessment five-year reviews would continue to be conducted, and appropriate steps would be taken, if necessary, to prevent or respond to a release or substantial threat of a release of munitions constituents of potential concern to off-range areas that could pose unacceptable risks to human health or the environment.
- Lead accumulation on the small arms ranges at B-19 would be monitored and adaptively managed by implementing appropriate management practices such as erosion control, lead removal, and pH monitoring and modification.

5.10.2 Proposed Management Practices, Monitoring, and Mitigation

5.10.2.1 Proposed Management Practices

The current management practices would continue to be implemented under the No Action Alternative, Alternative 1, Alternative 2, or Alternative 3 and existing programs and plans would be updated to reflect new conditions. The following management practices would continue to be implemented to avoid and minimize potential impacts on water quality under each alternative. There are no new management practices, monitoring, or mitigation measures proposed for water resources.

- Environmental impacts from incidental fuel spills would be avoided by conducting all ground-based refueling activities in a secondary containment area.
- Drip pads would be placed under equipment when parked to avoid soil contamination from leaking fluids.
- A spill prevention, control, and countermeasures plan would be developed to respond to any event that would exceed spill prevention, containment, and countermeasures quantity thresholds. The plan would help to ensure rapid and effective response to incidental spills and avoid contaminant migration to groundwater.
- Any spills of petroleum or other waste products would be managed and cleaned up in accordance with applicable state and federal regulatory requirements. If such a spill included a regulated material or impacted a waterway, the event would be immediately reported to the Nevada Department of Environmental Protection by the NAS Fallon Environmental Program. For more information, see Section 3.14 (Public Health and Safety and Protection of Children).
- The operational range clearance plan would be updated and implemented to address any new requirements for the ranges.

- Range condition assessment five-year reviews would continue to be conducted, and appropriate steps would be taken, if necessary, to prevent or respond to a release or substantial threat of a release of munitions constituents of potential concern to off-range areas that could pose unacceptable risks to human health or the environment.
- Evaluate wells on expansion areas prior to closing to determine if a beneficial use (fire suppression, wildlife/stock water, etc.).

5.10.2.2 Proposed Monitoring

The need for groundwater sampling, analysis, or monitoring would continue to be considered during range condition assessment five-year reviews conducted under the Navy's Range Sustainability Environmental Program assessment program. Monitoring wells currently in place would continue to provide groundwater quality information. With implementation of existing monitoring, there are no new monitoring programs proposed.

5.10.2.3 Proposed Mitigation

No mitigation measures are warranted for water resources based on the analysis for potential impacts on water resources. The Navy, as part of the proposed action, would acquire water rights within the proposed withdrawal areas if the water right can be maintained for beneficial use. If a condition of the water right can be modified (e.g., the point of use moved outside of the withdrawal areas), then the water right would not be acquired by the Navy. If wells are associated with the water right, then the Navy will evaluate on a case-by-case basis the disposition of the well (e.g., continued beneficial use or capping of the well). The Navy acknowledges that there may be impacts that have yet to be defined and will continue to develop and incorporate mitigation measures as necessary.

5.11 Biological Resources

5.11.1 Current Management Practices

Following is a summary of current requirements and practices applicable to vegetation and wildlife at FRTC:

- Current requirements and management practices applicable to wildlife and vegetation at the FRTC are described in the INRMP (U.S. Department of the Navy, 2014a). Actions focus on minimizing disturbance, controlling invasive plants, and restoring native habitats.
- Management practices that are currently applied to the existing ranges would continue to be implemented and expanded to the withdrawn lands.

5.11.2 Proposed Management Practices, Monitoring, and Mitigation

Management of proposed expansion areas would require extensive updates to management plans. If the proposed action is implemented (i.e., expansion of the existing DVTA and B-16, B-17, and B-20 ranges), the NAS Fallon INRMP would be revised to include management practices for special-status species. The Navy will coordinate with BLM, Nevada Department of Wildlife, and USFWS in the revision of the INRMP and will consider which additional management or monitoring activities can be incorporated. This coordination would include grazing management by BLM on DVTA, invasive species control and interdiction, wildland fire management, and other stewardship conservation programs.

5.12 Cultural Resources

5.12.1 Current Management Practices

Cultural resources at the FRTC region of influence are managed in accordance with the National Historic Preservation Act, the Archaeological Resources Protection Act, the American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act (NAGPRA), and appropriate Navy Instructions. The Navy also abides by a Programmatic Agreement (PA) with the Nevada State Historic Preservation Office (SHPO), the BLM, and the Advisory Council on Historic Preservation that requires the identification, evaluation, and treatment of historic properties on lands managed by NAS Fallon to ensure protection of cultural resources and coordination between the Navy and the Nevada SHPO (Naval Air Station Fallon, 2011). The PA contains stipulations that address cultural resource staffing, coordination and information exchange with the SHPO, standard procedures, special procedures, public participation, dispute resolution, training of nonprofessional staff, reports and monitoring, reviews, amendments, suspension, termination, execution, and implementation. In addition, the Navy abides by a Memorandum of Understanding (MOU) concerning Native American human skeletal remains and associated artifacts signed in 1991 by NAS Fallon, the Fallon Paiute-Shoshone Tribe, the Nevada SHPO, the USFWS, and the Nevada State Museum (Naval Air Station Fallon et al., 1991).

An Integrated Cultural Resources Management Plan (ICRMP) was completed in 2013. The document provides guidance to staff at NAS Fallon to ensure that all laws, regulations, policies, and directives related to cultural resources are appropriately followed while fulfilling the installation's mission. The ICRMP also provides SOPs for routine actions that may affect cultural resources (U.S. Department of the Navy, 2013).

Any inadvertent discovery of sensitive archaeological materials on the FRTC ranges would be handled in accordance with the Navy's management practices, which include provisions for stopping work and notifying the appropriate parties. If human remains are inadvertently discovered, then the procedures established under the NAGPRA and OPNAVINST 11170.2 series, *Navy Responsibilities Regarding Undocumented Human Burials*, would be followed.

5.12.2 Proposed Management Practices, Monitoring, and Mitigation

5.12.2.1 Proposed Management Practices

Management Practices discussed in Section 3.11.1.2 (Regulatory Framework) would continue to be implemented under any Alternative, if selected. Cultural resources would continue to be managed in accordance with the National Historic Preservation Act, the Archaeological Resources Protection Act, the American Indian Religious Freedom Act, NAGPRA, and appropriate Navy Instructions. The PA with the Nevada SHPO, the BLM, and the Advisory Council on Historic Preservation; the MOU with the Fallon Paiute Shoshone Tribe, the Nevada SHPO, the USFWS, and the Nevada State Museum; and the ICRMP would continue to be implemented on existing withdrawn lands and lands requested for withdrawal or proposed for acquisition. Any inadvertent discovery of sensitive archaeological materials on the FRTC region of influence would be handled in accordance with the Navy's management practices. If human remains are inadvertently discovered, then the procedures established under the NAGPRA and OPNAVINST11170.2 series, *Navy Responsibilities Regarding Undocumented Human Burials*, would be followed. If deemed necessary based on the proposed undertaking, a new PA may be developed to govern the management of the proposed land withdrawal expansion area. Development of the PA would be coordinated with the Nevada SHPO, the BLM, and the Advisory Council on Historic Preservation.

5.12.2.2 Proposed Monitoring

With current management practices of avoidance of cultural sites and management practices for inadvertent discovery, there are no new proposed monitoring programs.

5.12.2.3 Proposed Mitigation

In cases where avoidance of historic properties is not possible, the appropriate process outlined in 36 Code of Federal Regulations 800.6 (resolution of adverse effects) will be followed. With current management practices of avoidance of cultural sites and management practices for inadvertent discovery, there are no new proposed mitigation programs. However, the Navy acknowledges that there may be impacts that have yet to be defined and will continue to develop and incorporate mitigation measures as necessary.

5.13 Recreation

5.13.1 Current Management Practices

Current requirements and management practices applicable to recreation within the FRTC region of influence are agency specific and are discussed in respective subsections in Section 3.12.3 (Affected Environment).

Based on the FRTC Range Air Installations Compatible Use Zones Study (U.S. Department of the Navy, 2011), land uses, including recreational activities, within the FRTC region of influence are compatible with current training activities. The study includes training range safety and noise analyses and provides land use recommendations that are compatible with training range operations and their associated noise levels. Noise associated with training activities, as well as compatibility of noise levels with existing land use and points of interest, is addressed further in Section 3.7 (Noise) of this EIS. Safety associated with land use is of interest in areas proximate to training ranges B-16, B-17, and B-20, where air-to-ground delivery of munitions occurs.

5.13.2 Proposed Management Practices, Monitoring, and Mitigation

5.13.2.1 Proposed Management Practices

Management practices in place for other resources (e.g., noise, land use), which affect recreation at the FRTC, would continue to be implemented. These management practices also serve to avoid and minimize impacts on recreation. The following measures are recommended:

- The Navy would update the current MOU with the Nevada Department of Wildlife in order to authenticate the bighorn sheep hunting program on B-17 and outline management practices, including the annual review process.
- Allow the BLM or Nevada Department of Wildlife to continue to access and maintain existing wildlife guzzlers and other water developments.
- Install wildlife friendly fence design for any new fences and removal of all existing fences not required for safety/security purposes within the withdrawal area. Fences would be monitored and repaired by Conservation Law Enforcement Officers.
- The USFWS would continue to manage the Fallon National Wildlife Refuge under a MOU with the Navy and BLM once terms of the MOU were reached.

5.13.2.2 Proposed Monitoring

No monitoring measures are warranted for recreation based on the analysis presented in Section 3.12.3 (Environmental Consequences).

5.13.2.3 Proposed Mitigation

Mitigation measures were found to be warranted for recreation based on the analysis presented in Section 3.12.3 (Environmental Consequences) and are listed below:

- Install water developments outside of closed Navy lands to draw big-game and small-game and support populations outside of the ranges in order to mitigate against impacts to hunting. Numbers and locations of water developments are to be determined cooperatively with Nevada Department of Wildlife.
- Annual review of the bighorn sheep hunting program to determine if additional hunts can be coordinated.

5.14 Socioeconomics

5.14.1 Current Management Practices

There are no current requirements and management practices related to socioeconomics, environmental justice, or the protection of children. However, requirements and management practices in place for other resources (e.g., air quality, water quality, noise, and public health and safety) ensure that nonparticipants are not affected by actions within the Affected Environment (Bravo ranges and FRTC SUA).

5.14.2 Proposed Management Practices, Monitoring, and Mitigation

5.14.2.1 Proposed Management Practices

For any acquisition of privately owned property, private landowners would receive just compensation for loss of any privately-owned land acquired by the United States due to the proposed expansion of the Bravo ranges and DVTA. Just compensation would be determined by calculating the fair market value of parcels in accordance with federal appraisal rules codified in the Uniform Appraisal Standards for Federal Land Acquisitions.

5.14.2.2 Proposed Monitoring

No monitoring measures are warranted for socioeconomics based on the analysis presented in Section 3.13.3 (Environmental Consequences).

5.14.2.3 Proposed Mitigation

No mitigation measures are proposed for socioeconomic impacts based on the analysis presented in Section 3.4 (Livestock Grazing). Though not a National Environmental Policy Act mitigation measure, the Navy acknowledges that it has the authority under 43 United States Code section 315q of the Taylor Grazing Act of 1934, as amended, to make payments to federal grazing permit holders for losses suffered by the permit holders as a result of the withdrawal or other use of former federal grazing lands for war or national defense purposes.

5.15 Public Health and Safety

5.15.1 Current Management Practices

Specific and documented safety procedures are in place to ensure that nonparticipants are not endangered by training actions (U.S. Department of the Navy, 2008, 2016). The presence of fences and signs around bombing areas and the use of strict SOPs helps to protect the public from potentially hazardous training activities. Monitoring of training events serves to identify potential public health and safety risks and avoid them.

5.15.2 Proposed Management Practices, Monitoring, and Mitigation

5.15.2.1 Proposed Management Practices

Current measures are in place to ensure that nonparticipants are not endangered by actions at the FRTC, and they would remain in effect with the implementation of any of the Alternatives. The FRTC is actively developing a Fire Management Plan to reduce the risk of wildlife in the region of influence. Standard Operating Procedures and range clearance procedures would remain in place to ensure that training areas are clear of nonparticipants before an activity commences. The following management practices would continue to be implemented to reduce hazards associated with unexploded ordnance:

- Post signs warning of areas where unexploded ordnance clearance has not been confirmed.
- For public access, there would be procedures in place (e.g. escorts, range clearance, explosive ordnance disposal sweeps) to protect the public if authorized to enter the ranges.
- Maintain the Range Sustainability Environmental Program Assessment.
- Continue Operational Range Clearance activities which remove unexploded ordnance and other materials to reduce munitions constituent loading.

With the implementation of existing management practices on proposed withdrawn or acquired lands, no additional management practices would be warranted for public health and safety and protection of children based on the analysis presented in Section 3.14.3 (Environmental Consequences).

5.15.2.2 Proposed Monitoring

No monitoring measures are warranted for public health and safety based on the analysis presented in Section 3.14.3 (Environmental Consequences).

5.15.2.3 Proposed Mitigation

No mitigation measures are warranted for public health and safety based on the analysis presented in Section 3.14.3 (Environmental Consequences).

5.16 Environmental Justice

5.16.1 Current Management Practices

Consistent with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994), the Navy's policy is to identify and address any disproportionately high and adverse human health or environmental effects of its actions on minority and low-income populations.

5.16.2 Proposed Management Practices, Monitoring, and Mitigation

5.16.2.1 Proposed Management Practices

No management practices are warranted for environmental justice based on the analysis presented in Section 3.15.3 (Environmental Consequences).

5.16.2.2 Proposed Monitoring

No monitoring measures are warranted for environmental justice based on the analysis presented in Section 3.15.3 (Environmental Consequences).

5.16.2.3 Proposed Mitigation

No mitigation measures are warranted for environmental justice based on the analysis presented in Section 3.15.3 (Environmental Consequences). The Navy acknowledges that there may be impacts that have yet to be defined and will continue to develop and incorporate mitigation measures as necessary.

REFERENCES

- Naval Air Station Fallon, Fallon Paiute-Shoshone Tribes, Nevada State Historic Preservation Officer, U.S. Fish and Wildlife Service, and Nevada State Museum. (1991). *Memorandum of Understanding on Native American Human Skeletal Remains and Associated Artifacts*. Fallon, NV: Nevada Department of Conservation and Natural Resources.
- Naval Air Station Fallon. (2011). *Programmatic Agreement Among Naval Air Station, Fallon, Nevada, The Nevada State Historic Preservation Officer and the Advisory Council on Historic Preservation Regarding the Identification, Evaluation and Treatment of Historic Properties on Lands Managed by Naval Air Station, Fallon*. Fallon, NV: U.S. Department of the Navy.
- U.S. Department of the Navy. (2008). *Fallon Range Training Complex (FRTC) Users Manual NAVSTKAIRWARCENINST 3752.1(F)*. Fallon, NV: Naval Air Station Fallon. Retrieved from <https://uchisworld.files.wordpress.com/2013/07/knfl-nas-fallon-range-users-manual.pdf>.
- U.S. Department of the Navy. (2011). *Fallon Range Training Complex Range Air Installations Compatible Use Zone Study*. Fallon, NV: Naval Air Station Fallon.
- U.S. Department of the Navy. (2013). *Integrated Cultural Resources Management Plan: Naval Air Station, Fallon, Nevada*. Fallon, NV: Naval Facilities Engineering Command Southwest.
- U.S. Department of the Navy. (2014a). *Final Integrated Natural Resources Management Plan Naval Air Station Fallon*. Fallon, NV: AMEC Environment & Infrastructure, Inc.
- U.S. Department of the Navy. (2014b). *Fallon Range Training Complex Range Operations Manual NAWDCINST 3700.2 (Series)*. Fallon, NV: Naval Strike and Air Warfare Center.
- U.S. Department of the Navy. (2015). *Military Readiness Activities at Fallon Range Training Complex Environmental Impact Statement*. Fallon, NV: Commander, U.S. Pacific Fleet.
- U.S. Department of the Navy. (2016). *NATOPS General Flight and Operating Instructions Manual CNAF M-3710.7*. San Diego, CA: U.S. Department of the Navy. Retrieved from http://www.public.navy.mil/airfor/vaw120/Documents/CNAF%20M-3710.7_WEB.PDF.

This page intentionally left blank.