Record of Decision

Programmatic Environmental Impact Statement for Activities and Operations at Yuma Proving Ground, Arizona

1.0 Introduction

As the Executive Director of the U.S. Army Installation Management Command and the Executive Technical Director/Deputy to the Commander, U.S. Army Test and Evaluation Command, we have reviewed the Final Programmatic Environmental Impact Statement (Final PEIS) for the implementation of new activities and operations at Yuma Proving Ground (YPG), Arizona. This Final PEIS evaluates the potential environmental and socioeconomic effects of construction and demolition of facilities and infrastructure, and changes to current types and levels of testing and training. The Final PEIS adequately addresses the potential environmental and socioeconomic impacts of the U.S. Army's proposed activities. This Record of Decision (ROD) is based on the Final PEIS, dated April 2015. The purpose of the ROD is to set out the Department of the Army's selected action and state the basis for this decision. This ROD explains that the Army will proceed with its Preferred Alternative identified in the Final PEIS. This alternative best meets the Army's need to conduct realistic and up-to-date testing and training at YPG. The decision takes into account environmental impacts, summarized in the ROD. The ROD also adopts mitigation measures to reduce or eliminate adverse impacts.

The Final PEIS addresses the following categories of activities:

- Short-term, well-defined activities at known locations that could be implemented without additional National Environmental Policy Act of 1969 (NEPA; 42 United States Code [U.S.C.] 4321-4347) analysis once the decision to implement is made.
- Short-term, less well-defined activities for which locations are not known or for which additional information regarding site-specific implementation must be developed that would receive additional site-specific NEPA analysis prior to project implementation.
- Long-term, less well-defined activities that would occur later in time and would receive additional site-specific NEPA analysis prior to project implementation.

The Final PEIS provides thorough analysis under NEPA for the short-term well-defined projects. It also allows other projects to be implemented following a focused, site-specific NEPA analysis that would tier from this analysis by serving as a PEIS for the longer-term projects per Title 40, Code of Federal Regulations (CFR) Part 1502.20 (40 CFR 1502.20) and 32 CFR 651.14(c).

1.1 Background

New technologies and equipment and more powerful weapons and munitions are being developed for use by the U.S. military. Prior to use in combat, these technologies and items must be tested under realistic conditions comparable to what would be experienced in combat so that the Soldier can rely upon them. YPG is the premier hot, arid environment, year-round test center for the U.S. military and is responsible for evaluating the performance and reliability of military vehicles, equipment, weapons, and munitions in these climatic conditions under test and operational scenarios.

Some facilities on YPG are outdated. Constraints have been identified with the existing ranges that limit the testing of emerging weapons systems that require longer firing distances than current range configurations allow. YPG also experiences testing and training levels that result in over-utilization of existing facilities and ranges and scheduling conflicts. This reduces the efficiency of testing and training activities. The selected alternative would allow YPG to develop appropriate facilities to address these constraints and to meet military testing and training needs now and in future years.

The action is needed to ensure the readiness of U.S. forces and materiel to meet the demands of theaters of conflict around the world, especially those in hot, arid environments. Construction of new buildings and infrastructure and modified or expanded testing and training facilities will enable YPG to meet future military needs in response to changing conditions and technologies. New buildings are needed to replace facilities that are unsuitable for modification to accommodate emerging military technologies, alleviate space limitations that can cause testing delays or inefficiencies, and allow more efficient use of resources on YPG.

Electronic military technology is continually being improved with regard to range, sensitivity, and ability to overcome detection/intercept systems. The technology to disrupt or disable an adversary's sensors and detection systems also is continually being improved. YPG must be able to adapt testing and training to address these technological changes as they arise.

2.0 Alternatives

2.1 Proposed Action

The Proposed Action includes the 296 proposed activities identified in Tables 2-1 through 2-6 in Section 2.4 of the Final PEIS, including new construction and associated demolition, testing, and training activities occurring on YPG to meet anticipated requirements. Under the Proposed Action, there would be no increase in the number of military and civilian personnel assigned to YPG and these activities would not induce growth in the region. There could be an increase in transient personnel with increased testing and training capacity, but these personnel would be onsite only for short periods. Potential increases in operational testing to provide realistic in-theater conditions to support testing would not result in personnel increases.

The short-term, well-defined construction, testing, and training activities planned to occur in the Laguna, Cibola, and Kofa Regions of YPG under the Proposed Action are analyzed in detail in the Final PEIS and in Appendix C of that document. The remaining construction, testing, and training activities are analyzed programmatically. These activities include new facilities construction and expansion of testing and training areas (including increases in testing of unmanned aerial vehicle systems (UAS), and new and improved infrastructure to support testing and training activities.

2.2 Preferred Alternative

Input from government agencies and tribal organizations on the Draft PEIS was considered and YPG developed a Preferred Alternative that will have a reduced impact for some projects than the originally Proposed Action. Both have 296 proposed activities. In some cases, the affected areas have been reduced. In others, the Preferred Alternative selects among implementation alternatives presented in the Proposed Action. The Preferred Alternative differs from the Proposed Action as follows:

- Implement proposed activity L030-b, the smaller of the two considered light maneuver training areas (LTAs), rather than proposed activity L030-a. The size of the training area was reduced by approximately 10,000 acres under L030-b.

- Implement Option 1 for proposed activity L031 (to construct Military Freefall School [MFFS] Dining Facility) from among three alternatives under consideration.
- Implement Option 1 for proposed activity L034 (to construct MFFS Ready Room) from among three alternatives under consideration.
- Implement a reduced area for proposed activity C034-a to consolidate and expand the Graze Range munitions impact area, reducing size of the expanded munitions impact area and avoiding impacts to a known resource.
- Implement a reduced area for proposed activity K003, an expanded munitions impact area, establishing the northern boundary of the munitions impact area 1,000 meters south of the boundary of the Kofa National Wildlife Refuge (NWR) and establishing the western boundary of the expanded munitions impact area parallel to and 500 meters east of the boundary of the Kofa NWR. The size of the munitions impact area was reduced by approximately 2,900 acres.
- Implement proposed activity K024 to establish a cable drop site rather than proposed activity C066.
- Implement a reduced area for proposed activity K026, establishing the northern boundary of the LTA 1,000 meters south of the boundary of Kofa NWR). The size of this area was reduced by 1,826 acres from what was originally proposed.

2.3 No Action Alternative

An environmental analysis of a No Action Alternative is required by Council on Environmental Quality (CEQ) regulations. This analysis serves as a benchmark for comparison of the impacts of other alternatives. It is defined as the environmental baseline condition. The No Action Alternative is the continuation of current operations on YPG. Under the No Action Alternative, testing and training would continue at the current levels and utilize existing facilities and infrastructure with no new construction. Ongoing testing and training occur in specific areas within YPG. No test areas, munitions impact areas, or drop zones (DZs) would be expanded under the No Action Alternative. No construction or demolition would occur. Under the No Action Alternative YPG would not be able to increase its testing and training capabilities safely and effectively to meet current and emerging Army requirements.

2.4 Alternatives Eliminated from Further Consideration

The Final PEIS considered and eliminated six alternatives from detailed analysis. The alternatives include:

- Discontinue Use of Yuma Proving Ground as a Military Proving Ground
- Expand the Size of Yuma Proving Ground
- Increase the Military Testing Mission to Encompass Nuclear, Biological, and Chemical Activities
- Proceed with New Construction with No Increase in Testing and Training Capabilities
- Proceed with Increased Testing and Training Capabilities with No New Construction or Demolition
- Relocate Certain Activities to Other Installations

The details regarding these alternatives and the reasons for exclusion have been addressed in the Final PEIS.

2.5 Implementation

We have selected the Preferred Alternative. Implementation will proceed in accordance with the U.S. Army's Military Construction process and YPG work plans as funding becomes available.

Any activities and projects selected for implementation following analysis in this Final PEIS will require additional evaluation and processing prior to implementation. Specific project proponents must submit a work order (DA 4283) or service order and other required documents, such as a dig permit, for approval by YPG Environmental Services Division for the proposed project. Further, a specific proposed project may require Real Property Planning Board approval, additional NEPA review, National Historic Preservation Act (NHPA) Section 106 consultation, or environmental permit applications, and state or federal regulatory agency approvals prior to implementation. These approvals may result in additional implementation requirements and mitigation measures being required for specific projects.

3.0 Public Involvement

In accordance with CEQ regulations (40 CFR 1500-1508) and the Department of the Army's NEPA implementing procedures (32 CFR 651, *Environmental Analysis of Army Actions*), the Army provided federal, state, and local agencies, tribal governments, the public and other interested stakeholders with opportunities to participate in the preparation of both the Draft and Final PEIS as follows:

- Notice of Intent to prepare a PEIS published in the *Federal Register* (Vol. 76, No. 101) on May 25, 2011.
- Tribal Government scoping meeting held on June 8, 2011.
- Agency scoping meetings held on June 14, 2011
- Public scoping meetings held on June 14 and 15, 2011.
- NHPA Section 106 consultation meeting with Tribal Governments held August 21-23, 2012 and on April 17, 2013.
- Notice of Availability for the Draft PEIS published August 16, 2013.
- Open public comment period for 45 days following publication of the Notice of Availability, from August 16 to September 30, 2013.
- Public meetings on the Draft PEIS conducted on September 24 and 25, 2013.
- Comments from the U.S. Environmental Protection Agency (EPA), September 2013.
- Comments from U.S. Fish and Wildlife Service (USFWS) and Arizona Game and Fish Department (AGFD), October 2013.
- Notice of Availability for the Final PEIS published April 24 2015.

Prior to publication of the Notice of Intent in the Federal Register, the Army sent a letter explaining its intent to prepare a PEIS to interested Native American tribes, federal agencies, local government officials, and other known stakeholders. The Army received a number of comments during this scoping process, and used them to refine the Army's proposals. The Army's scoping letter and all scoping comments may be found in Appendix A of the Final PEIS.

Following publication of the Draft PEIS, the Army received comments from several interested parties. The EPA, in a letter dated September 2013, rated the DPEIS as "Environmental Concerns – Insufficient Information", and recommended that the Army provide more detail for actions

analyzed at the project (versus programmatic) level, and that the Army better define and disclose potential increases in testing and training activities that could result from expansions in capacity. This letter also contained many specific recommendations for the Final PEIS. The AGFD provided comments in a letter dated October 2, 2013. The USFWS/Kofa NWR also provided extensive comments. The Army responded to all of these comments in detail, incorporating many of the recommendations and suggested changes into the Final PEIS.

Section 7 of the FINAL PEIS contains a full explanation of the public involvement process. Section 8 contains a listing of all public, agency, and tribal comments and responses. Appendix A contains all correspondence and comments from the public, agency, tribal, and other key stakeholders, as well as the Army's responses.

In response to EPA and other comments from agencies and tribal organizations during the Draft PEIS 45-day comment period, the Army modified several proposed projects as reflected in the Preferred Alternative. Following publication of the Final PEIS, the Army received a letter, dated 14 May 2015, from the EPA, discussing some bridge and culvert designs that could be adopted for the Aberdeen Road project during the Clean Water Act (CWA) Section 404 process. YPG will consider these design features in that process.

4.0 Environmental Consequences

Implementation of this decision is expected to result in direct, indirect, and cumulative impacts. Environmental impacts are expected to occur as a result of new construction and associated demolition, new or expanded testing, and expanded training activities. The Final PEIS evaluated the potential environmental impacts on the following resource areas: air quality, cultural resources, energy/utilities, hazardous materials/hazardous waste, land use, noise, safety, soils, threatened and endangered species and species of concern, vegetation, visual resources, wildlife and fisheries, recreation, socioeconomics, traffic/transportation, water resources, airspace management, environmental justice and protection of children, fire management, and geological resources. This section describes the impacts and mitigation for the selected alternative. Information on the original alternative and the no action alternative are in the Final PEIS. The Final PEIS ensured that the Army, in making this decision, was informed of the potential environmental and socioeconomic impacts associated with implementing the selected action. The following discussion presents a summary of impacts that are anticipated to occur as a result of implementing the selected action; it also includes a summary of mitigation measures identified in the PEIS that reduce or eliminate adverse impacts. Table 2-11 of the Final PEIS indicates those resource areas for which impacts are expected to be significant. It does not always indicate whether these impacts can be reduced to less than significant; this section answers that question for each relevant resource area.

4.1 Air Quality

Minor impacts to air quality would occur from increased emissions due to operation of permanent sources of air emissions created by proposed construction activities, operation of new facilities, vehicle operation to travel to new facilities, and testing and training activities that would be conducted. In addition, temporary adverse impacts would occur due to fugitive dust from construction activities and negligible short-term impacts to local air quality would result due to emissions from construction equipment.

Minor beneficial impacts would occur from installation of hard power and telecommunications lines with associated reduction in the use of portable generators for testing and training.

Twelve proposed activities would be implemented in or near the particulate matter (PM_{10}) non-attainment area of the Laguna Region of YPG. These activities were analyzed and results indicate that the proposed activities in the non-attainment area would not exceed the conformity threshold for PM_{10}. A Record of Non-Applicability (RONA) has been prepared certifying that "All activities associated with the Proposed Action in the non-attainment area would be below the conformity threshold value for PM_{10}." This document is provided in Appendix E of the Final PEIS. Although the Final PEIS indicated that this non-attainment area could have potentially significant impacts, the RONA indicates that this would not be the case.

Best Management Practices (BMPs) will be used during construction to reduce or eliminate fugitive dust emissions. In areas with disturbed and unstable highly erodible soils, BMPs would also be applied when practicable during military operations. No substantial changes to air quality from baseline conditions would be likely with implementation of the selected alternative.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts for activities in the non-attainment area. With the implementation of BMPs described above, however, impacts will be less than significant.

4.2 Cultural Resources

Due to the large size (approximately 840,000 acres) of YPG, much of the installation has not been surveyed for cultural resources. Known resources in areas that have been surveyed would be avoided or impacts mitigated. Impacts to cultural resources could occur in areas not previously surveyed, however. As appropriate, surveys, State Historic Preservation Officer (SHPO) consultation under the NHPA, and mitigation would be implemented. Deeply buried unknown resources could experience minor to moderate impacts from construction and training activities, and from an increased potential for inadvertent discovery due to increases in usage in areas where activities would be implemented. Increased usage of areas could also result in potential for damage to cultural resources from vandalism by unauthorized persons.

U.S. Army Garrison determined that implementation of projects in the Final PEIS would affect historic properties at YPG. A Programmatic Agreement (PA) was developed and approved on November 17, 2014, in consultation with Arizona SHPO, the Advisory Council on Historic Preservation (ACHP), and interested tribes, that identifies means to avoid, minimize, and mitigate the potential effects. These identified means are adopted as part of this decision. YPG consulted with the Arizona SHPO, the ACHP, and interested tribes to develop this PA, provided in Appendix F of the Final PEIS, to address cultural resource issues that arise during operations and activities at YPG, as well as those from proposed projects. The PA was approved November 17, 2014.

The following are treatment plans for the protection and mitigation of prehistoric, historic archaeological sites, and paleobotanical resources: avoidance of areas with known important sites; physical protection of individual sites through fencing, berming, or other protective measures to make the sites inaccessible; and monitoring the effectiveness of the protection measures.

Through the planning process for the Proposed Action, activities were sited to avoid known archaeological and paleobotanical resources to the extent practicable in order to minimize impacts to important cultural resources. For areas proposed for activities where previous cultural resource surveys have not been conducted, measures may include surveys, tribal consultation, compliance with stipulations in the Section 106 PA, and activity-specific NEPA analysis.

Environmental Awareness Training concerning cultural resources will be implemented for persons working or training on YPG. This training would explain the importance of archaeological and paleobotanical resources and the protection of these resources on YPG.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts. With the implementation of the provisions of the PA and other measures described above, however, impacts will be less than significant.

4.3 Energy/Utilities

The Preferred Alternative would provide beneficial impacts to energy and utilities including:

- Minor reduced energy use through the construction of more energy-efficient buildings and the use of solar-powered lights.
- Moderate long-term beneficial impacts to regional energy consumption following installation of hard power to locations currently using portable generators.
- Minor beneficial impacts to air quality from reduced emissions and to hazardous materials management from reduced transport and handling of fuels following installation of hard power to locations currently using portable generators.
- Minor beneficial impacts on wastewater utilities from operation of a new wastewater treatment system at Castle Dome Heliport (CDH) and new sewage lagoon at Kofa cantonment.
- Minor beneficial impact from construction of a new water plant at CDH, reducing reliance on bottled and bulk water.

Minor to moderate impacts to energy use in the region would result from an increase in energy demand. Minor temporary impacts to groundwater would be anticipated from increased use to support construction activities, but no long-term increase in groundwater demand would be expected.

4.4 Fire Management

Under the Preferred Alternative annual firing of munitions would remain within the upper and lower bounds seen historically, but there would be new or expanded munitions impact areas which would increase the areas into which munitions may be fired. Because the number of rounds fired would be within the historical range, no change in the frequency of wildfire ignition from munitions testing and training would be expected. Under the Preferred Alternative, there would be a no change in the number of rounds fired on YPG, but additional areas would be fired into. No change in the incidence of wildfire from munitions firing would be expected, but wildfires may be ignited in more areas of YPG. The potential for wildfire to spread would continue to be limited to conditions of increased fuel load from growth of native and exotic annual plant species following above normal precipitation.

Land disturbed during construction or during testing and training activities may be more susceptible to invasion by exotic invasive plant species. Areas kept clear of vegetation for testing and training purposes, including temporary gun positions (TGPs), airfields, and UAS support areas would be maintained with little or no fuel load and would likely reduce the potential for wildfire to spread across these areas, which could result in a long-term benefit to fire management.

A new emergency operations center would be constructed near Laguna Army Airfield, which would be a benefit to fire management and would improve firefighting at Laguna Army Airfield and the surrounding area.

Mitigation measures would reduce the potential for fires and improve fire management. YPG is developing a program to monitor and manage all invasive plants on YPG. YPG will continue to coordinate with Bureau of Land Management, the Kofa NWR, and the U.S. Forest Service on fire management strategies and to develop and interpret wildfire data. To the extent allowed within

safety constraints from unexploded ordnance (UXO), efforts to control and manage wildfires on YPG will be implemented.

Table 2-11 of the Final PEIS indicates that the Preferred Alternative would have a potentially significant impact on this resource area. Even with the adoption of the mitigation measures described above (as well as the additional measures described below in Section 4.12 regarding prevention of wildfires) a potentially significant impact could still occur to this resource area, due to the uncertain nature and multiple potential causes of wildfire, the challenges of managing wildfire risk in UXO-containing areas, and wildfire's potentially devastating impact on biological resources, particularly TES (threatened, endangered, or sensitive) species, including the Sonoran pronghorn.

4.5 Hazardous Materials and Hazardous Wastes

Testing and training activities would continue, but would be conducted over a wider area under the Preferred Alternative. Annual levels of testing and training would be expected to fluctuate within historical maximum and minimum levels based on specific needs. The impacts from hazardous materials/hazardous waste from testing and training that would occur under the Preferred Alternative would not be expected to change. Minor impacts from leaks associated with vehicle use and maintenance, petroleum/oil/lubricant (POL) spills, and chemical decomposition of munitions constituents of concern (MCOCs) could occur in new or expanded testing and training areas. There would also be the potential for minor impacts from increased use and disposal of certain hazardous materials during testing and training activities, depending on the specific testing or training that is occurring. These activities would comply with the BMPs identified in YPG's spill prevention control and countermeasure plan and installation spill contingency plan.

Construction activities would cause a minor short-term increase in hazardous waste generation due to demolition of buildings with asbestos-containing materials. Potential for impacts could also occur from the installation of air conditioning components.

Minor beneficial effects would occur from construction of appropriate down-range facilities. This would include storage and containment of POLs, effectively reducing the potential for spills. It would also include the installation of hard power and telecommunications for testing and training sites, reducing the use of portable generators.

Mitigation of potential impacts includes the continued management of hazardous materials using existing environmental programs and guidance to manage the handling and disposal of hazardous materials and waste in compliance with applicable laws and regulations. If new facilities are sited in previously contaminated sites, appropriate protective measures will be implemented to safeguard construction workers. If contaminated soil is encountered during construction, it will be removed and properly disposed of in accordance with appropriate regulations. Appropriate protective procedures will be implemented when renovation or demolition of existing buildings would result in potential exposure to asbestos-containing material.

In the event that munitions and explosives of concern are discovered in areas of proposed construction, they will not be disturbed until qualified personnel are able to assess and implement appropriate disposition. As required, the U.S. Army will consult with the appropriate state and federal agencies.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts. With the implementation of the mitigation measures described above, however, impacts will be less than significant.

4.6 Land Use

New construction that would occur under the Proposed Action would be compatible with YPG land use designations and would not conflict with any off-post land uses. No effects to land use would result from new building construction.

Testing and training activities included in the No Action Alternative would continue and would be conducted over a wider area under the Proposed Action. Minor changes from conversion of open space to other uses in these areas would be consistent with the military land use on YPG.

YPG will continue coordination and participation in local plans and development meetings to ensure that encroachment and land use incompatibilities from adjacent lands are avoided.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts. With the implementation of the mitigation measures described above, however, impacts will be less than significant.

4.7 Noise

Slight changes in the noise zones associated with large artillery could occur with the expansion of impact areas, but would not be expected to affect use of nearby lands outside the installation boundary. The anticipated noise levels would be within the levels analyzed to develop the Installation Noise Management Plan. The sparsely populated and undeveloped land surrounding YPG typically lacks potential sensitive human receptors. Civilians and travelers not associated with YPG could be exposed to nuisance noise levels when travelling on US 95 or when camping or using facilities/ areas in the vicinity of YPG. The noise would be intermittent and of short duration. On-post personnel would continue to use appropriate hearing protection and comply with standard operating procedures (SOPs) developed for specific testing and training activities, and would not experience impacts. Wildlife on YPG could experience minor long-term impacts from disturbances associated with sporadic noise from the use of new or expanded testing and training areas.

Construction activities would cause minor temporary impact to wildlife from noise. Construction would also cause localized short-term minor disturbances to conversations of YPG personnel and construction contractors. There are no sensitive human receptors in proximity to construction areas.

Measures to prevent land use incompatibilities with adjacent lands, including impacts from noise, will include physical and procedural measures. Physical mitigation measures will include the following:

- Locating or relocating ranges relative to natural barriers such as valleys and mountains.
- Constructing berms or barriers around small caliber ranges.
- Orienting noise sources toward the interior of the installation and away from sensitive receptors.

Procedural mitigation measures will include:

- Participating actively in local and regional planning, including use of geographic information system and noise contours.
- Conducting noise-intensive activities under favorable weather conditions that minimize noise transfer.
- Maintaining aircraft operations in compliance with established Installation Compatible Use Zone.
- Implementing fly-neighborly programs.

- Adjusting the timing of particularly disruptive activities where feasible.
- Informing the public of any unusual increases in intensity of testing and training activities or of activities to be resumed after a period of inactivity.
- Monitoring noise on the ground when appropriate.
- Continuing to implement existing noise complaint management procedures.

To minimize human exposure, safety zones and hazardous noise areas will be established as needed and will include the use of noise level meters and warning signs.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts. With the implementation of the mitigation measures described above, however, impacts will be less than significant.

4.8 Recreation

Under the Preferred Alternative potential for minor to moderate impacts could occur to recreational hunting in the Cibola Hunting Area, Martinez Hunting Area, and the East Arm Hunting Area due to use of new and expanded testing and training areas. Seven proposed activities could conflict with recreational hunting in those areas on YPG or require suspension of public access for the duration of testing or training activities at:

- Project C047-r - Ehrenberg TGP.
- Project K001 - 1,640-foot radius DZ for personnel and cargo drops in southern portion of East Arm.
- Project K021 - Create an LTA in the East Arm.
- Project K030 - Construct runway, taxiway, aircraft shelter, command and control room, simulator training room, classroom, maintenance area, POL storage area, graded area for parking, and concrete or asphalt pad, clear area for ground control structures, and clear area for UAS launch/recovery.
- Project L016-a - Construct building, concrete or asphalt pad, shade structure, and install solar lights at Site 2.
- Project L016-b - Install hard power, fiber, and communication service at Site 2.
- Project L019 - Expand and combine West LA LTA, K-9 Village LTA, Site 2 LTA, and Site 4 LTA.

No impacts would occur to off-post recreational opportunities.

Beneficial impacts would result from construction of a new park, youth center addition, and improvements to other passive recreational opportunities. Some of the greenspace in the main administrative area associated with improvements to Cox Field would be lost to residents for passive recreation use.

4.9 Safety

Expansion of testing and training areas could result in the potential for minor increase in safety incidents. Since the aggregate amount of testing and training is not increasing, the rate of incidents (expressed per worker hour) would not be expected to change. Range safety protocols and SOPs would be followed to minimize safety and fire risks. UXO from historic testing and training on YPG could pose a safety concern for YPG personnel using new LTAs. Safety procedures for UXO are specified in YPG regulations and would be followed to reduce risks. Because no change in the

frequency of wildfires would be expected under the Preferred Alternative, no change in safety risk related to wildfire would occur.

Construction activities could cause minor short-term impacts to construction worker safety and to traffic safety due to construction-related traffic. Once construction is complete moderate benefits to operational safety would result due to antiterrorism/force protection improvements, medical evacuation helicopter pads, flood upgrades on Aberdeen Road, pedestrian safety from D Street conversion to walkway, and installation of shading at multiple locations. Installation of hard power and telecommunications in the Cibola and Kofa Regions would result in a minor benefit to personnel safety due to decreased transportation of fuel and use of portable generators.

YPG will implement mitigation measures to minimize the potential adverse impacts to safety from construction and active munitions areas. During construction, workers will follow appropriate Occupational Safety and Health Administration regulations and on-post personnel will comply with the YPG safety program. Each testing and training activity will have a specific safety protocol. YPG will verify there are no people in the portion of a Safety Danger Zone (SDZ) extending into the Kofa NWR, primarily by visual or electronic means. Helicopters will be used to locate people only where large portions of a SDZ overlap Kofa NWR, primarily in R-2307.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts. With the implementation of the mitigation measures described above, however, impacts will be less than significant.

4.10 Socioeconomics

Construction would result in minor short-term beneficial impacts to the local economy from purchase of building materials, short-term construction jobs, and secondary spending by construction workers. Implementation of a project to construct a new water plant at CDH would result in a reduction in bottled water use. Implementation of a project to install hard power lines at several locations would result in a reduction in the use of portable generators for testing and training. These projects would cause associated negligible to minor impacts on local fuel and water retailers from reduction in demand for these services on YPG.

4.11 Soils

Soil impacts could result in new and expanded testing and training areas from soil disturbances associated with off-road vehicle and equipment activity and maneuvers, dismounted maneuvers, set-up for test operations, UAS launch/recovery areas, drop zones, and live-fire exercises. These impacts would be negligible to minor in soils that are not susceptible or are moderately susceptible to erosion and moderate to highly erodible soils that are disturbed. Long-term impacts would result from degradation of munitions into soils in munitions impact areas.

Construction projects would cause short-term negligible to minor impacts during construction from disturbance and permanent minor impacts from conversion of soils to impervious surfaces within constructed footprints. At temporary gun positions, clearing activities would result in minor long-term impacts.

Short-term impacts from construction and paving would occur on approximately 360 acres of soil (143 acres of highly erodible soils). Runoff from the newly created impervious areas (310 acres) could cause long-term soil impacts to the surrounding areas. Up to 149,425 acres of soil (60,174 acres of highly erodible soils) would be disturbed by maneuver areas and vehicle test courses. Approximately 1,325 acres (795 acres of highly erodible soils) would be disturbed by DZs. Approximately 1,035 acres of soil (600 acres of highly erodible soils) would be cleared for UAS launch/recovery areas and TGPs. These areas would have long-term potential for increased erosion. Approximately 43,123 acres (23,867 acres of highly erodible soils) would be converted to

munitions impact areas and could include localized areas with increased erosion potential from explosion cratering. The new munitions impact areas also would have the potential for long-term impacts to soils from contamination from metals and other potential contaminants following degradation of bullets and other munitions components.

Installation of utility infrastructure would result in disturbance to approximately 20 acres. The potential for increased erosion would be long-term because of the very slow regrowth of desert vegetation. Proposed telecommunications utility infrastructure would be installed above-ground in areas with highly erodible soils to minimize the potential for increased erosion. Soil impacts from aerial lines would be negligible and limited to the footprint of the support poles.

Mitigation measures, including measures implemented to avoid impacts, will address the potential for increased erosion from either wind or water. All disturbed soils will have a greater potential for erosion because the soils will be directly exposed to the effects of precipitation and wind. Mitigation measures will include: planning, site selection, and site design to avoid disturbance of highly erodible soils; implementation of construction BMPs to minimize the potential for onsite erosion (for example, preserving existing vegetation, mulching, slope protection, silt fencing, wet suppression and chemical dust suppression); construction and post-construction stormwater controls (for example, site design, temporary detention areas, mulching, use of pervious and semi-pervious surfaces); and continued implementation of the Integrated Training Area Management (ITAM) program and the Integrated Natural Resources Management Plan (INRMP).

Table 2-11 of the Final PEIS indicates that the Preferred Alternative would have a potentially significant impact on this resource area. Even with the adoption of the mitigation measures described above, a potentially significant impact could still occur to this resource area, due to the fact that the Preferred Alternative could result in uncontrolled and irreparable erosion in areas where management practices are insufficient to minimize the effects, and result in changes to native soils that would preclude the restoration of native plant communities in a contiguous area greater than five acres. In arriving at these conclusions, the Army considered factors such as: the sheer acreages of potential soil disturbance; the probability of disturbance of fragile, highly erodible soil families such as the Cristobal family-Gunsight family complex soils; and the very nature of the proposed activities (including construction, limited off-road vehicle operation, and explosive munitions testing and training).

4.12 Threatened or Endangered Species and Species of Concern

Potential impacts to TES species, which includes species of concern could occur from displacement or loss during testing or training activities or indirectly from disturbance that allows introduction of invasive plants into habitat. Disturbances such as noise or wildfire could also cause indirect impacts to TES species as a result of nest/den abandonment, loss of habitat, or disruption of migratory pathways. Expected impact to TES species would be:

- **Transient or Incidental Species -** Negligible to minor impacts likely from displacement during construction, testing, or training activities.
- **Sonoran Desert Tortoise** (former candidate species) **-** Long-term moderate impacts from loss of habitat and potential for incidental mortality.
- **Sonoran Pronghorn -** Long-term minor impacts to the experimental population of Sonoran pronghorn on YPG through disturbance, habitat modification, and the remote possibility of injury or mortality due to munitions delivery, collision with vehicles, or increased vulnerability to predation; would not appreciably reduce the likelihood of the recovery.
- **Banded Gila Monster -** Minor long-term impacts from loss of habitat and disturbances from construction, testing, and training activities.

- **Threatened, Endangered, or Sensitive Bat Species -** Negligible to minor long-term impacts due to loss of foraging habitat.
- **Loggerhead Shrike -** Moderate long-term impacts from loss of habitat and disturbances caused by construction, testing, and training activities.
- **Western Burrowing Owl -** Moderate long-term impacts due to loss of habitat and disturbances from construction, testing, and training activities.
- **Parish Onion -** Negligible to minor long-term impacts from incidental mortality and due to the slow growth rate of these species.
- **Other Threatened, Endangered, or Sensitive Plant Species -** Minor long-term impacts from clearing of vegetation for construction, testing, and training purposes.
- **Wild Horses and Burros -** Minor temporary impacts due to construction activities; minor long-term impacts due to displacement and loss of habitat from use of new or expanded testing and training areas.

In addition to the analysis in the Final PEIS, a Biological Evaluation (See Appendix A of the Final PEIS) was prepared and submitted to the USFWS to address potential impacts to Sonoran pronghorn on the Kofa NWR, where the species is classified as threatened. The Biological Evaluation presented the following findings:

- Any direct effect to Sonoran pronghorn on the Kofa NWR would be limited to intermittent visual and auditory disturbance to animals that are located near the boundary. The magnitude of this disturbance would be further reduced by distance to the actual activity.
- Wildfire has the potential to spread from YPG onto Kofa NWR and affect Sonoran pronghorn habitat. These affects may be adverse in that Sonoran pronghorn may be temporarily displaced from forage. Long-term impacts may include reduction in perennial vegetation that provides forage and cover as well as increased predation to fawns due to the lack of cover.
- The Preferred Alternative would not jeopardize the continued existence of the Sonoran pronghorn.

The USFWS concurred with the findings of the Biological Evaluation in the Biological Opinion (BO) issued on September 9, 2014, which is further discussed below.

By avoiding known TES species locations and water sources, YPG will minimize the potential for impacts to TES species. When implementing construction projects in areas where TES animal species are likely to nest or den, YPG will schedule construction to occur outside the nesting or denning period where practicable.

Surveys will be conducted to minimize the potential for impacts from activities proposed within or adjacent to high quality TES species habitat, as necessary. If TES species were found in the proposed activity areas, YPG would determine whether the proposed activity could be relocated. If relocation of the activity were not practicable, YPG would relocate TES species to nearby suitable habitat if practicable. If proposed activities could not be scheduled outside the nesting/denning periods for TES species, work could be delayed until after young had fledged or departed the area when practicable or the nest could be sheltered in place using the appropriate protocols through coordination with AGFD.

Where vegetation clearing might occur in or adjacent to suitable habitat for the banded Gila monster or Sonoran desert tortoise, barriers such as silt fencing may be placed to deter entry by these species.

YPG will continue to incorporate those portions of the Recommended Standard Mitigation Measures for Projects in Sonoran Desert Tortoise Habitat that are consistent with the military mission.

Formal consultation with USFWS under Section 7 of the ESA regarding activities with potential to impact Sonoran pronghorn on the Kofa NWR was concluded on September 9, 2014 with issuance of a BO, located in Appendix A of the Final PEIS. The BO included three Reasonable and Prudent Measures with implementing Terms and Conditions that YPG will comply with. YPG will implement the Reasonable and Prudent Measures:

1. YPG shall monitor environmental conditions on the Kofa Range, including weather patterns (e.g., temperature, precipitation, humidity) and status of fuels (e.g., distribution and density of annual vegetation or any other vegetation that is capable of carrying fire across the landscape).
2. YPG shall continue to maintain a fire department with wildland firefighting capabilities. YPG shall continue to maintain a fire station at Kofa to provide rapid response on the Kofa Range in the event of fire.
   Should YPG detect exceptional fuel conditions that are conducive to carrying fire, then YPG shall increase fire readiness by 1) providing additional fire briefings to test officers to stress the importance of initial fire spotting and early notification and 2) consider maintenance of fire break infrastructure as funding and military mission permit.
3. YPG shall report to the USFWS any fires that occur in the King Valley of Kofa NWR as a result of activities carried out or authorized by YPG to USFWS Arizona Ecological Services Office (FWS-AESO) and Kofa NWR as soon as possible. The report (can be in the form of an email) will, at a minimum, include the date(s), acreage, and location(s) of the fire(s), as well as number of pronghorn in the vicinity of the fire, if known. YPG shall also immediately notify Kofa NWR via telephone or email once aware that a fire has or may encroach onto the refuge.

Further, if during the course of the action, the level of incidental take is exceeded, such incidental take would represent new information requiring review of the reasonable and prudent measures provided. YPG will immediately provide an explanation of the causes of the taking and review with the FWS-AESO the need for possible modification of the reasonable and prudent measures.

In addition, the BO included the following conservation recommendations that YPG will implement:

a. Continue to participate on the Sonoran Pronghorn Recovery Team.
b. Participate in the implementation of the Sonoran Pronghorn Recovery Plan. This could include providing or pursuing financial support to implement recovery actions identified by the Sonoran Pronghorn Recovery Team.
c. Avoid and minimize adverse effects to Sonoran pronghorn from military and other activities on YPG to the extent practicable.

Conservation measures that are included in the proposed action that will be implemented by YPG include:

a. Implement the 2014 Final Incident Response Protocol for Sonoran Pronghorn, which includes: a) notifying USFWS and other appropriate parties as outlined in the protocol as soon as possible if Sonoran pronghorn are observed on YPG that are injured, sick or dead; and b) coordinating range access for USFWS and AGFD as appropriate for capture of sick or injured pronghorn as well as recovery of dead individuals if necessary. Coordination will involve adherence to range safety and security procedures.
b. Avoid placing activities in proximity to artificial water sources (suitable for Sonoran pronghorn) to the extent that such action is consistent with the military mission.

c. YPG will adhere to the terms of the Memorandum of Understanding between the Kofa NWR, Imperial NWR, Bureau of Land Management, and YPG which provides procedures and guidance for cooperation and collaboration on wildland fire issues. This includes notifying interagency dispatch of any wildfire on YPG lands.

To minimize the potential for impacts to TES species YPG will limit surface-disturbing activities to the smallest area practicable and will avoid vegetation where feasible.

The INRMP directs the management of natural resources, including TES species within YPG. Through continued implementation of the INRMP, YPG utilizes the best available scientific knowledge and techniques to manage its resources. Measures to avoid or minimize impacts to soils, vegetation, and water resources will provide indirect benefits to wildlife through improved habitat conditions.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts. With the implementation of the mitigation measures described above, particularly the terms of the 2014 USFWS BO, impacts are anticipated to be less than significant.

4.13 Traffic/Transportation

Construction projects would generate additional construction-related vehicle use during working hours on roads on and leading to YPG. Temporary road closures and short-term minor increases in traffic on roads leading to or adjacent to project locations could occur. In addition, implementation of projects associated with road realignments/upgrades, intersection improvements, Access Control Points and security gates would result in additional direct impacts to roads on YPG during construction and long-term beneficial impacts from improved traffic safety following construction.

Expanding the size and location of runways, aircraft parking and shelters, hangars, taxiways, and similar facilities would improve air operations and would reduce travel times and allow for greater use of both the diversity and volume of air assets tested.

YPG will implement mitigation to minimize the potential adverse impacts to traffic from temporary road closures. During road closures, traffic control procedures will be implemented such as flaggers or posted detours. During construction of the Aberdeen Road flood upgrades, appropriate traffic control measures will be implemented to minimize the disruption of traffic flow, and may include detours, timing construction to avoid peak traffic volume times, and flaggers.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts. With the implementation of the mitigation measures described above, impacts are anticipated to be less than significant.

4.14 Vegetation

There would be unavoidable impacts to vegetation. Impacts to vegetation on YPG typically either are permanent, such as where construction or paving eliminates vegetation from an area, or long-term because the harsh environment and the limited availability of water in the desert result in very slow recovery of vegetation following disturbance. Approximately 2,175 acres of desert vegetation would experience long-term impacts from clearing of desert scrub vegetation for UAS launch/recovery areas and disturbances to vegetation from DZ activities. Another approximately 310 acres would be lost to construction and paving, and up to approximately 204,470 acres would experience intermittent long-term impacts from use as munitions impact areas, vehicle test courses, or dismounted maneuver areas.

Installation of utility infrastructure would affect approximately 20 acres of vegetation. These impacts would be long-term because of the very slow recovery of desert vegetation following disturbance.

All areas of exposed, disturbed soils would be subject to invasion by exotic invasive plant species. Construction BMPs would be used to stabilize disturbed soils, which would minimize the potential for invasion by exotic invasive species. Further, the development and use of exotic invasive plant species control methods through continued implementation of the INRMP would minimize the potential for spread of the exotic invasive plants into disturbed areas. Construction BMPs also would reduce the potential for indirect impacts to vegetation as a result of erosion of exposed disturbed soils from stormwater runoff.

Land disturbed during construction or during testing and training activities may be more susceptible to invasion by exotic invasive plant species. This could negatively impact native vegetation on YPG. Range management activities and invasive plant control measures currently implemented on YPG would be continued and would limit the potential for spread of exotic invasive plant species.

There would be no loss of plant species from YPG and no loss of any identified habitat type on the installation as a result of implementation of the Proposed Action. Impacts to vegetation on YPG as a result of the Proposed Action would be moderate and long-term because of the very slow recovery of desert vegetation following disturbance.

There would be a minor beneficial impact on native vegetation from replacement of approximately 8 acres of irrigated turf grass at Cox Field with xeriscaping that would feature native desert vegetation.

Construction and post-construction stormwater controls will be implemented to facilitate infiltration and reduce the potential for scour. Depending on the location of the new impervious areas, the potential loss of vegetation through scour from erosive water flow could extend off-post and affect vegetation on adjacent downstream properties. During construction, BMPs will be used to stabilize disturbed soils, which would minimize the potential for indirect impacts to vegetation as a result of erosion of exposed disturbed soils from stormwater runoff.

YPG will modify its INRMP to address invasive plant species control in the new disturbed areas. Without future management to control exotic invasive plant species, the impacts to vegetation from displacement of native species could be significant. Continued implementation of the YPG ITAM program will help to maintain desert vegetation in areas used for training activities. It will also maintain or rehabilitate testing and training areas to maintain conditions that realistically simulate conditions in other desert regions.

Table 2-11 of the Final PEIS indicates that the Preferred Alternative would have a potentially significant impact on this resource area. Even with the adoption of the mitigation measures described above, a potentially significant impact could still occur to this resource area due to the propagation of invasive (non-native) plant species.

4.15 Visual Resources

Potential temporary minor negative impacts to areas of aesthetic and visual value may occur during construction as a result of airborne dust from the use of heavy equipment and site preparation. Construction and associated equipment would likely not be visible to the public or would be largely unnoticed due to the operation of military equipment and vehicles in the vicinity.

Permanent minor negative impacts to the publicly visible landscape could occur as a result of new buildings. New development would generally occur in cantonments in the Laguna and Kofa Regions, which are currently developed and not readily visible to the public during travel along US 95, Imperial Dam Road, Cibola Lake Road, and Martinez Lake Road. New buildings would be

designed to blend with the existing visual landscape by using consistent architectural themes in accordance with the YPG Installation Design Guide.

While testing and training activities typically are located to avoid casual observation by the public, temporary minor negative impacts to areas of aesthetic and visual value may occur as a result of activities on new or expanded training and testing areas. Testing and training activities that include off-road vehicle operation, testing on unpaved tracks, dismounted maneuvers, and certain smoke obscurant testing can create temporary obstruction to public views.

There would be an increase in use of lighter-than-air UASs and the size of these craft also may increase. These would likely appear to the public as a tethered balloon and could be used long-term. These lighter-than-air UASs may lower the quality of public views of areas of aesthetic and visual value depending on the perception of the viewer and could be considered a minor negative cumulative impact.

The use of dust suppression practices during construction will minimize the amount of airborne dust. New buildings will be designed using the YPG Installation Design Guide to blend with the existing visual landscape. The YPG Environmental Awareness program developed instructions for units training on YPG that include proper procedures and avoidance measures to be implemented during ground-based training activities to minimize potential impacts to areas of aesthetic and visual value.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts. With the implementation of the mitigation measures described above, impacts are anticipated to be less than significant.

4.16 Water Resources

Impacts to water resources and water quality could occur as a result of construction or improvements of buildings and facilities, airfield runways and taxiways, roadways and Access Control Points, TGPs, and utility infrastructure would be temporary, minor and localized and reduced with use of appropriate BMPs. Proposed construction activities would result in conversion of 125 acres in the Laguna Region, 130 acres in the Cibola Region, and 54 acres of the Kofa Region to impervious surfaces. There would be potential for increased runoff and a negligible impact to groundwater recharge as a result. For all construction projects Arizona Pollutant Discharge Elimination System general stormwater permits would be obtained and stormwater treated to the maximum extent practicable to minimize the potential for impacts to water resources.

Expanded dismounted maneuver areas and new vehicle test courses, new DZ and new impact areas and the subsequent use of these areas could cause impacts soils (erosion and sedimentation) and cause resulting impacts from sediment run-off. Impacts would be expected to be negligible with continued implementation of the ITAM program.

Use of high explosives in munitions impact areas would create localized soil disturbances that would have the potential for soil erosion and subsequent sedimentation in washes. Inert impact areas would experience less soil disturbance, but there would be potential for long-term minor to moderate indirect impacts to surface water resources or shallow groundwater resources should the munitions degrade and release MCOCs to the soil.

Construction of the Aberdeen Road flood improvements would require a CWA Section 404 permit from U.S. Army Corps of Engineers (USACE) and a CWA Section 401 Water Quality certification from Arizona Department of Environmental Quality (ADEQ). YPG would obtain these authorizations once the design is complete prior to construction. YPG and its construction contractor would be required to comply with all conditions of the CWA Section 404 permit and

Section 401 Water Quality certification, including implementation of any mitigation that may be specified as a condition of the CWA Section 404 permit.

Stormwater controls will be implemented to facilitate infiltration and reduce the potential for scour (for example, site design and grading, use of temporary detention areas, preserving existing vegetation, mulching, use of pervious and semi-pervious surfaces).

YPG will obtain a CWA Section 404 permit from USACE and CWA Section 401 Water Quality certification from ADEQ prior to construction of the Aberdeen Road flood improvements. YPG and its construction contractor will be required to comply with all conditions of the CWA Section 404 permit and Section 401 Water Quality certification, including implementation of any mitigation that may be specified as a condition of the permit.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts. With the implementation of the mitigation measures described above, impacts are anticipated to be less than significant.

4.17 Wildlife and Fisheries

Wildlife would be temporarily disturbed by construction activities and associated noise. It is likely that wildlife would relocate to similar habitat nearby. Most proposed construction would occur in cantonment areas or other previously developed locations where wildlife habitat is limited and human activity is common. Impacts from construction would likely be minor and short term at any given location, but would recur through time across the installation.

New dismounted maneuver areas would be established at multiple locations across YPG. Dismounted maneuvers typically would result in diffuse movement through an area, which would have negligible impacts on habitat. Dismounted maneuver activities could displace wildlife from areas during operational testing and training activities. Because operational testing and training activities could occur throughout the year, displacement of wildlife would be expected to recur through time unless animals acclimatize to the periodic human activity. Because any training activities would be of short duration (typically less than 2 weeks) and there would be extended periods of inactivity between training events, the recurring impacts would be temporary.

Eight proposed activities would occur in areas in proximity to wildlife water tanks. Any wildlife water tanks that would be removed to implement an activity would be replaced by a comparable new water tank prior to removal to maintain the resource in the area. Replacement wildlife water tanks, if necessary, would be established as close as feasible to the removed water tank. No cumulative impacts to wildlife would be expected with regard to water tanks.

New TGPs could result in disturbance, including clearing, of up to 50.6 acres of desert scrub habitat in the Cibola Region and up to 26.4 acres of desert scrub vegetation annually in the Kofa Region, but only within isolated areas of up to 2.2 acres each. Clearing would be spread through both space and time, but the slow recovery of desert vegetation would result in habitat impacts being long-term. Because individual TGPs would be relatively small and would be dispersed across the landscape, wildlife impacts from TGPs would be expected to be minor and long-term.

The following steps will be used when practicable to minimize impacts:

- Avoid wildlife concentration areas.
- Avoid impacts to water sources.
- Schedule construction projects to avoid or minimize conflicts with reproduction.
- Continue to implement INRMP procedures.

When implementing construction projects in areas where wildlife species are likely to nest or den, YPG will schedule construction to occur outside the nesting or denning period where practicable.

Surveys will be conducted in high quality habitat for birds protected under the Migratory Bird Treaty Act. Work could be delayed until after young had fledged or departed the area when practicable, or the nest could be sheltered in place using the appropriate protocols through coordination with AGFD.

Through continued implementation of the INRMP, YPG utilizes the best available scientific knowledge and techniques to manage wildlife, including, but not limited to, survey, monitor, and analyze wildlife population trend information; assess wildlife habitat needs; maintain wildlife habitat needs; maintain wildlife movement corridors and migration routes; ensure water tanks provide the needed water for wildlife; relocate wildlife; minimize illegal hunting and unauthorized activities; cooperate with AGFD and USFWS for wildlife rehabilitation and law enforcement.

Table 2-11 of the Final PEIS indicates that this resource area is expected to have significant impacts. With the implementation of the mitigation measures described above, impacts are anticipated to be less than significant.

4.18 Other Resource Areas

There would be no change from current conditions and therefore no impacts to airspace management, environmental justice and protection of children, and geological resources.

5.0 Mitigation and Monitoring Commitments

The U.S. Army is committed to sustaining and preserving the environment at YPG. Appropriate management, control, and mitigation measures are specified to eliminate or lessen potential impacts. A monitoring and enforcement program will be put in place to monitor mitigation. Quarterly reports will be used to determine effectiveness and appropriate adjustments will be made, if needed.

There are no specific mitigation measures identified for the following resource areas: airspace management, energy/utilities, environmental justice and protection of children, geological resources, recreation, and socioeconomics. YPG will continue to conduct operations in accordance with all applicable program guidance and practices intended to protect the environment. Summaries of the adopted mitigation measures for the remaining resource areas are included in Section 4.0 above. For projects analyzed at the programmatic level, additional analysis may be required to assess impacts and additional mitigation measures may be developed.

6.0 Decision for Implementation of the Preferred Alternative at YPG

The U.S. Army is selecting the Preferred Alternative in the Final PEIS as the alternative selected for implementation.

As the Executive Director of the U.S. Army Installation Management Command and the Executive Technical Director/Deputy to the Commander, U.S. Army Test and Evaluation Command, we have considered the results of the analysis in the Final PEIS, supporting studies and comments provided though the government and public involvement process. The No Action alternative is the environmentally preferable alternative because it has the fewest impacts from new testing, training, and construction. But the No Action alternative does not meet the purpose and need of the proposed action as described in Section 1.1, above. The Proposed Action would meet the purpose

and need, and would have the environmental impacts indicated in the Final PEIS. The selected alternative, like the original Proposed Action, would meet the purpose and need. It reduces constraints that have been identified with the existing ranges, which limit the testing of emerging weapons systems, and which require longer firing distances than current range configurations allow. It would also reduce testing and training levels that result in over-utilization of existing facilities and ranges and scheduling conflicts. The selected alternative includes reduced areas for three proposed activities (K003, K026, and C034-a) and selection of the smaller of considered alternative for another activity (L030-b) to avoid or minimize potential impacts to Soils and Vegetation. These changes will mean that Army mission activities will have somewhat less space available than originally proposed. The selected alternative therefore represents a balance between mission requirements and stewardship of the environment. We have therefore decided to select the Preferred Alternative.

In making this decision, we are aware of the potential environmental effects of the Preferred Alternative. Consequently, our decision to proceed with the Preferred Alternative includes implementation of mitigation and control measures outlined in Section 5.0 of this ROD. All practicable means to avoid or minimize environmental harm from the selected alternative have been adopted. We are aware that implementation of the selected alternative could result in potentially significant impacts to Fire Management, Soils, and Vegetation, even after implementation of mitigation measures. This decision supports the U.S. Army's efforts to fulfill its mandated mission requirements. In conclusion, we are approving this ROD for release and the U.S. Army Yuma Proving Ground may proceed with the selected alternative.

JOE C. CAPPS
Executive Director
U.S. Army Installation Management Command

15 Jun 16
Date

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MICHAEL J. ZWIEBEL
Executive Technical Director/
Deputy to the Commander
U.S. Army Test and Evaluation Command

4 May 2016
Date

Acronyms

ACHP	Advisory Council on Historic Preservation
ADEQ	Arizona Department of Environmental Quality
AGFD	Arizona Game and Fish Department
BMP	best management practice
BO	Biological Opinion
CDH	Castle Dome Heliport
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
DZ	drop zone
EPA	U.S. Environmental Protection Agency
FWS-AESO	U.S. Fish and Wildlife Service Arizona Ecological Services Office
INRMP	Integrated Natural Resources Management Plan
ITAM	Integrated Training Area Management
LTA	light maneuver training area
MCOC	munitions constituents of concern
MFFS	Military Freefall School
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOI	Notice of Intent
NWR	National Wildlife Refuge
PA	Programmatic Agreement
PEIS	Programmatic Environmental Impact Statement
PM_{10}	particulate matter less than or equal to 10 micrometers in diameter
POL	petroleum/oil/lubricant
ROD	Record of Decision
SDZ	Safety Danger Zone
SHPO	State Historic Preservation Officer
SOP	standard operating procedure
TES	threatened, endangered, or sensitive
TGP	temporary gun positions
UAS	unmanned aerial vehicle system / unmanned aircraft system
US	United States
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
UXO	unexploded ordnance
YPG	Yuma Proving Ground