

HIGHWAY 95 LAND WITHDRAWAL

LEGISLATIVE ENVIRONMENTAL IMPACT STATEMENT

Draft

**Legislative Environmental Impact Statement
for the Highway 95 Land Withdrawal**

**U.S. Army Garrison Yuma Proving Ground
Yuma and La Paz Counties, Arizona**

February 2024

Lead Agency:

U.S. Department of the Army



Cooperating Agency:

**U.S. Department of the Interior
Bureau of Land Management**



Prepared by:

**North Wind Resource Consulting, LLC
1425 Higham Street
Idaho Falls, ID 83402**

NORTHWIND
RESOURCE CONSULTING

**Draft Legislative Environmental Impact Statement
for the
Highway 95 Land Withdrawal**

Lead Agency: U.S. Department of the Army

Cooperating Agency: U.S. Department of the Interior, Bureau of Land Management

Title of the Proposed Action: Highway 95 Land Withdrawal

Location of the Proposed Action: State of Arizona, Counties of La Paz and Yuma

For Additional Information Contact: Daniel Steward
YPG Environmental Sciences Division
Telephone: (928) 328-2125
Email: Daniel.m.steward.civ@army.mil
OR
Omar Silva
YPG Range Operations
Telephone: (928) 328-4805
Email: omar.c.silva.civ@army.mil

Mail Comments to: Daniel Steward
YPG Environmental Sciences Division
U.S. Army Garrison Yuma Proving Ground
301 C St. Bldg. 307
Yuma, AZ 85365

Submit Electronic Comments to: usarmy.ypg.imcom.mbx.nepa@army.mil

ABSTRACT

This Draft Legislative Environmental Impact Statement (LEIS) describes the U.S. Army's (Army) requested military land withdrawal and reservation of approximately 22,000 acres of public land in Arizona managed by the U.S. Department of the Interior, Bureau of Land Management (BLM). Under the Engle Act of 1958, only Congress can establish a withdrawal for defense purposes of this many acres for any one defense project or facility. If enacted, this withdrawal would add to the existing Yuma Proving Ground (YPG). The requested withdrawal would allow YPG to accommodate current and emerging testing requirements, enhance soldier readiness, and reduce potential public safety concerns. The public land requested for withdrawal is located west of Highway 95, from the highway to the current YPG boundary. These additional lands would accommodate larger surface safety zones to allow for higher altitude parachute releases to existing drops zones on YPG and provide an additional buffer area in case of release point errors and system failures. If withdrawn and reserved by Congress for Army use, the requested area would extend a portion of the YPG boundary east to Highway 95, establishing the highway as a distinct physical landmark for the YPG boundary in that area. The Proposed Action evaluated in this LEIS is the legislative withdrawal and reservation for use by the Army of approximately 22,000 acres of public land for an indefinite period (i.e., until there is no longer a military need for the land). Alternative 1 is the withdrawal and reservation of the land for a shorter duration (i.e., a period of 25 years). Under the No Action Alternative, there would be no withdrawal; rather, the land would remain public land managed by the BLM. This Draft LEIS analyzes potential effects of the Army's use of the land, should Congress withdraw and reserve it for the military purposes specified, on several resource areas. Written comments and inquiries regarding this document are welcomed and encouraged. They should be directed electronically or via postal mail to the addresses listed above.

TABLE OF CONTENTS

ABSTRACT.....	iii
LIST OF ACRONYMS	viii
GLOSSARY OF TERMS	xi
EXECUTIVE SUMMARY	xii
1 INTRODUCTION AND PURPOSE OF AND NEED FOR ACTION.....	1-1
1.1 Introduction	1-1
1.1.1 Process for Authorizing the Withdrawal.....	1-1
1.1.2 Decision to be Made.....	1-3
1.2 Purpose and Need	1-5
1.3 Public Outreach, Consultation, and Coordination	1-7
1.3.1 Cooperating Agencies	1-7
1.3.2 Public Involvement	1-7
1.3.3 Additional Coordination.....	1-8
1.4 Applicable Regulatory Requirements.....	1-8
2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES	2-1
2.1 Introduction	2-1
2.2 Proposed Action	2-1
2.3 Alternative 1-Withdrawal of Shorter Duration, Such as 25 Years	2-4
2.4 No Action Alternative	2-4
2.5 Alternatives Considered but Eliminated.....	2-5
2.5.1 Other Land Use Authorizations.....	2-5
2.5.2 Transfer of Administrative Jurisdiction	2-6
2.5.3 Other Locations on YPG.....	2-6
2.5.4 Smaller Withdrawal Footprint.....	2-6
3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	3-1
3.1 Introduction	3-1
3.2 Biological Resources.....	3-6
3.2.1 Vegetation	3-6
3.2.2 Wildlife	3-10
3.2.3 Environmental Consequences	3-18
3.3 Cultural Resources.....	3-24

3.3.1	Cultural History.....	3-26
3.3.2	Environmental Consequences	3-27
3.4	Existing Land Use	3-28
3.4.1	Existing Land Use Authorizations	3-29
3.4.2	Utility Infrastructure.....	3-29
3.4.3	Transportation Infrastructure.....	3-31
3.4.4	Perimeter Land Use	3-34
3.4.5	Airspace.....	3-34
3.4.6	USACE Formerly Used Defense Site (FUDS).....	3-34
3.4.7	Environmental Consequences	3-37
3.5	Recreation and Public Access	3-38
3.5.1	Environmental Consequences	3-40
3.6	Socioeconomic Values and Environmental Justice	3-41
3.6.1	Population Trends	3-43
3.6.2	Employment	3-43
3.6.3	Income Characteristics	3-44
3.6.4	Economic Profiles	3-45
3.6.5	Housing	3-45
3.6.6	Contribution of Yuma Proving Ground	3-45
3.6.7	Environmental Justice	3-46
3.6.8	Environmental Consequences	3-51
4	PUBLIC OUTREACH AND COORDINATION	4-1
4.1	Agency Coordination.....	4-1
4.2	Public Involvement: LEIS	4-1
4.2.1	Project Mailing List.....	4-1
4.2.2	Federal Register Notice of Intent	4-1
4.2.3	Project Website	4-2
4.2.4	Newspaper Advertisements.....	4-2
4.2.5	Project Newsletter	4-2
4.2.6	U.S. Army Virtual Public Meetings	4-2
4.3	Public Involvement Methods: Land Withdrawal Process	4-2
4.3.1	BLM Federal Register Notification.....	4-2
4.3.2	BLM Newspaper Advertisements and Media Releases	4-3
4.3.3	BLM Virtual Public Meetings.....	4-3
4.3.4	Tribal Coordination.....	4-3
4.4	Public Comments.....	4-4
4.5	Draft LEIS Notification, Availability, and Review	4-4
4.5.1	Public Notification	4-5
4.5.2	Draft LEIS Availability.....	4-5

4.5.3	Public Hearings	4-5
5	REFERENCES	5-1

List of Figures

Figure 1-1.	YPG Location Showing the Project Area.....	1-2
Figure 1-2.	Federal Land Withdrawal and NEPA Processes for the Withdrawal Application.	1-4
Figure 1-3.	Requested Withdrawal Location.	1-6
Figure 2-1.	Example of a SSZ that can be supported with the Requested Withdrawal Area.....	2-3
Figure 3-1.	Vegetation Classification within the Project Area from the AZGFD Report.....	3-7
Figure 3-2.	Existing Authorizations in the Requested Withdrawal Area.....	3-30
Figure 3-3.	Location of Parker-Blaisdell Utility Corridor.	3-32
Figure 3-4.	Authorized Routes in the Requested Withdrawal Area.....	3-33
Figure 3-5.	Restricted Airspace near the Requested Withdrawal Area.....	3-35
Figure 3-6.	Stone Cabin FUDS in the Project Area.	3-36
Figure 3-7.	Counties, Towns, CDPs, and Native American Communities near the Withdrawal Area....	3-42
Figure 4-1.	Comments Received by Topic.	4-4

List of Tables

Table 3-1.	Resources and Rationale for Elimination or Detailed Analysis	3-2
Table 3-2.	Vegetation Classifications in the Project Area	3-8
Table 3-3.	Summary of Federally Listed (ESA) Species Identified by the IPaC System and their Potential to Occur within the Withdrawal Area	3-12
Table 3-4.	Special Status Species with the Potential to Occur within Habitat Types Present in the Project Area.	3-15
Table 3-5.	Rights-of-Way Within the Project Area.	3-29
Table 3-6.	Population Trends Around the Requested Withdrawal Area (2010 and 2021)	3-44
Table 3-7.	Income Characteristics (2020 and 2021).....	3-44
Table 3-8.	Summary of Yuma Proving Ground Economic Impacts.....	3-46
Table 3-9.	Communities in the Analysis Area.....	3-47
Table 3-10.	Native American Reservations in the Analysis Area	3-47
Table 3-11.	Reference Areas.....	3-48

Appendices

Appendix A: Air Quality and Climate Change

Appendix B: Area of Critical Environmental Concern

Appendix C: Floodplains

Appendix D: Health and Safety

Appendix E: Livestock Grazing

Appendix F: Minerals

Appendix G: Noise

Appendix H: Paleontological Resources

Appendix I: Prime and Unique Farmlands

Appendix J: Soils

Appendix K: Visuals

Appendix L: Water Resources

Appendix M: Wild Horse and Burro

Appendix N: Wilderness

Appendix O: Biological Assessment

Appendix P: BLM Arizona – YPG Highway 95 Withdrawal Utility Corridor Letter

Appendix Q: Highway 95 LEIS Socioeconomic and Environmental Justice Analysis

Appendix R: List of Preparers, Contributors, and Reviewers

LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
APS	Arizona Public Service
Army	U.S. Army
AR	Army Regulation
AZGFD	Arizona Game and Fish Department
BA	Biological Assessment
BCC	Birds of Conservation Concern
BLM	Bureau of Land Management
BMP	Best Management Practice
CDP	Census Designated Place
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DA	Department of the Army
DoD	Department of Defense
DoDI	Department of Defense Instruction
DOI	U.S. Department of the Interior
DOPAA	Description of Proposed Action and Alternatives
EO	Executive Order
ESA	Endangered Species Act of 1973, as amended
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act of 1976, as amended
FUDS	Formerly Used Defense Site
GPS	Global Positioning System
ICRMP	Integrated Cultural Resources Management Plan
IM	Instructional Manual

IMCOM	Installation Management Command
INRMP	Integrated Natural Resources Management Plan
IPaC	Information for Planning and Conservation
kV	kilovolt
LEIS	Legislative Environmental Impact Statement
MBTA	Migratory Bird Treaty Act of 1918
MMR	Military Munitions Response
MOU	Memorandum of Understanding
MST	Mountain Standard Time
NEP	Non-Essential, Experimental Population
NEPA	National Environmental Policy Act of 1969, as amended
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOI	Notice of Intent
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
OHV	Off-highway Vehicle
P.L.	Public Law
PA	Programmatic Agreement
PFYC	Potential Fossil Yield Classifications
PLO	Public Land Order
RMP	BLM Yuma Field Office Record of Decision and Approved Resource Management Plan
RMZ	Recreation Management Zone
ROW	Right-of Way
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Officer

SOP	Standard Operating Procedure
SRMA	Special Recreation Management Area
SSZ	Surface Safety Zone
TCP	Traditional Cultural Property
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UXO	Unexploded Ordnance
WHA	Wildlife Habitat Area
YPG	Yuma Proving Ground

GLOSSARY OF TERMS

Census Designated Place (CDP). Statistical geography representing closely settled, unincorporated communities that are locally recognized and identified by name. The purpose of CDPs is to provide meaningful statistics for well-known, unincorporated communities.

Formerly Used Defense Sites (FUDS). Sites that were under the jurisdiction of Department of Defense (DoD) prior to October 1986, and were used for a variety of purposes, including training and supporting military personnel, as well as to test new weapons and warfare capabilities. The FUDS Program cleans up environmental contamination at properties formerly owned, leased, possessed, or used by the military services. DoD is responsible for the environmental restoration (cleanup) of properties that were formerly owned by, leased to or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense prior to October 1986. Such properties are known as FUDS.

Military Munitions Response (MMR). Response actions, including investigation, removal actions, and remedial actions, to address the explosives safety, human health, or environmental risks presented by unexploded ordnance (UXO), discarded military munitions, or munitions constituents, or to support a determination that no removal or remedial action is required.

Military Munitions Response Area. Any area on a defense site that is known or suspected to contain UXO, discarded military munitions, or munitions constituents. Examples are former ranges and munitions burial areas. A Munitions Response Area comprises one or more munitions response sites.

Public Land. For the purposes of this document and as described in the public land laws, public land generally means any land and interest in land owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management (BLM) (43 United States Code (U.S.C.) 1702(e)).

Reserved Federal Land. Withdrawn land that is then designated for specified public (or governmental) purpose(s) or program(s). Yuma Proving Ground (YPG) comprises withdrawn Federal land that has been reserved for the public purpose of national defense.

Surface Safety Zone (SSZ). The exclusion area established by risk calculations to protect personnel and equipment from hazards associated with testing military hardware. There is essentially no admittance in the exclusion area while the operational event is active.

Withdrawn Land. Federal land that is withheld by executive or legislative action from settlement, sale, location, or entry under some or all the general land, mining, and mineral leasing laws to maintain other public values in the withdrawn area, reserve the withdrawn area for a particular public purpose or program, or to transfer jurisdiction over the withdrawn area between federal departments, bureaus, or agencies. The Defense Withdrawal Act of 1958 (also referred to as the Engle Act, Public Law [P.L.] 85-337, 43 U.S.C. 155-158; hereinafter referred to as the “Engle Act”) provides that only Congress can withdraw federal land of more than 5,000 acres for military purposes.

EXECUTIVE SUMMARY

Introduction

Yuma Proving Ground (YPG), located in southwestern Arizona (Figure 1-1), is the U.S. Army's (Army) premier Natural Environments Test Center. YPG, which was originally established in 1951 as the Yuma Test Station (and renamed in 1963), to serve as a multi-purpose test center responsible for the vast majority of the nation's artillery testing workload, as well as the testing of many types of armored vehicles and air drops of cargo (e.g., parachutes). Today, YPG continues to lead the nation in military testing, increasing the quality and safety of America's combat forces. The YPG boundary encompasses 829,565 acres (approximately 1,300 square miles) of land withdrawn under Public Land Order (PLO) No. 848 issued on July 1, 1952, as amended, and reserved for use by the Army in connection with the Yuma Test Station (currently YPG). YPG is divided into the Kofa, Laguna, and Cibola Regions.

The Army has requested a land withdrawal and reservation for military purposes of approximately 22,000 acres of public land managed by the U.S. Department of the Interior, Bureau of Land Management (BLM). If enacted by the U.S. Congress, this withdrawal would add to the existing 829,565 acres withdrawn for YPG. The requested withdrawal is located west of Highway 95 and is adjacent to YPG's North Cibola Range.

Process for Authorizing the Withdrawal

The process for the requested land withdrawal and reservation for use by the Army was initiated when the Secretary of the Army submitted a withdrawal application for approximately 22,000 acres of public land to the BLM for processing on behalf of the Secretary of the Interior on September 9, 2021. The application was prepared in accordance with the Defense Withdrawal Act of 1958 (Public Law [P.L.] 85-337, 43 United States Code [U.S.C.] Sections 155-158), more commonly known as and hereinafter referred to as the "Engle Act;" the Federal Land Policy and Management Act of 1976, as amended (FLPMA) (43 U.S.C. 1714); and the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321-4370(h)). This Legislative Environmental Impact Statement (LEIS), along with other relevant reports and analyses, will be submitted to Congress as part of the land withdrawal case file.

Decision to Be Made

Congress will be asked to decide whether to expand YPG by passing legislation that would withdraw and reserve, for military purposes, approximately 22,000 acres of public land adjacent to the eastern border of YPG's Cibola Range. Congress may authorize the withdrawal and reservation for either a defined or indefinite period or may deny the authorization to withdraw the land by taking no further action.

The Army is the lead agency preparing the LEIS. An LEIS, rather than an administrative environmental impact statement, is being prepared for the Proposed Action because only Congress, under the Engle Act, is able to approve a requested withdrawal of more than 5,000 acres of land for any one defense project or facility. The Army will not sign a separate Record of Decision

Purpose of and Need for the Withdrawal

The purpose of the proposal is to expand YPG's Cibola Range high altitude airdrop testing capabilities (for maintenance of soldier readiness) and ensure public safety. Expansion of YPG through the withdrawal and reservation of the identified public lands is needed to support current and emerging testing and training requirements for advances in Global Positioning System (GPS)-guided parachute air delivery technology and tactical scenarios that necessitate a higher airdrop altitude, greater target offsets, and increased aircraft speed. Drops from higher altitudes are safer for the aircraft and crew because they are harder for enemy air defense systems to reach. Testing and training exercises from higher altitudes

and airspeeds require larger surface safety zones (SSZs) – areas in space and on the ground that provide additional safety buffers in case of error or failure – than are currently available on the Cibola Range. The land requested for withdrawal provides an adequate SSZ to accommodate testing and training for higher altitude parachute releases.

Advancements in air delivery technologies and aviation systems have exceeded the test capabilities that can be performed within the Cibola Range aircraft testing region. Currently, air delivery systems are not tested to their full capabilities for altitude and precision because of land and airspace limitations. Higher elevation and GPS-guided air delivery methods are being developed to provide better support to soldiers and other personnel in the field. These systems require larger SSZs to contain equipment failures that could drift off course. The larger SSZ allows for the exclusion of the public and other non-participating persons, thereby reducing risks. If the withdrawal is not enacted, air drops would be limited to the current SSZs and therefore would not allow testing of the full capability and precision of the new systems.

Public Scoping Process and Comments

The Army published a Notice of Intent (NOI) to prepare an LEIS in the *Federal Register* on September 9, 2022. Publication of the NOI began the scoping process for the LEIS. As a cooperating agency for preparation of the LEIS, the BLM joined the Army in the public participation process.

The scoping process for the LEIS included a comment period and scoping meetings designed to provide background information, create an opportunity for members of the public to learn about the LEIS process with project representatives, and identify issues and alternatives. The Army notified the public of its intent to prepare an LEIS and the scoping period through several means, including the NOI, a newsletter, a project website, newspaper advertisements, and two virtual public meetings.

The BLM published a “Notice of Withdrawal Application and Notice of Public Meetings for the Yuma Proving Ground, Arizona” in the *Federal Register* on April 4, 2022. The BLM notified the public about the withdrawal application and the opportunity for comment through newspaper advertisements, a media release, and two virtual public meetings. Publication of the notice initiated a 90-day public comment period and a two-year period when the land was segregated from settlement, sale, location, or entry under some or all the general land, mining, and mineral leasing laws to allow the agencies and Congress to consider the Army’s application.

In addition to comments received during the above-mentioned public meetings, a total of eight pieces of correspondence were received. The Army received LEIS scoping comments from one member of the public, three agencies, and two organizations; the BLM received comments from one individual and one organization. Substantive comments submitted to the Army and the BLM were used to inform the analysis in this LEIS.

Description of the Proposed Action and Alternatives

The Proposed Action addressed in the LEIS is the withdrawal and reservation of approximately 22,000 acres of BLM managed public lands for military purposes associated with YPG located west of Highway 95 and adjacent to YPG’s North Cibola Range (Figure 1-1). The Army’s request is that Congress enacts legislation withdrawing and reserving the land for military purposes for an indefinite period, until there is no longer a military need for the land. The Army has identified a continuing need (with no foreseeable end) for the additional land to support testing of current and future military advancements, similar to the purpose for the existing withdrawal for YPG (authorized by PLO No. 848, as amended), which is for an indefinite term. Therefore, a withdrawal for an indefinite period would better accommodate long-term planning and testing and training requirements to support these emerging technologies.

The 22,000 acres requested for withdrawal and reservation are located adjacent to the current boundaries of YPG. The additional safety buffer provided by the requested withdrawal area would enable use of existing Drop Zones by allowing for expanded SSZs, which would facilitate more complex and higher altitude testing scenarios.

YPG works to ensure public safety during cargo drops through risk management protocols and changing test parameters. Crew airdrop release point errors and system failures, while rare, do occur. Higher altitudes and offset distances from the targeted location are needed for more complex testing scenarios to test the full capabilities of the parachute systems. YPG would continue to use the Drop Zones and infrastructure it has in place; however, as altitude and guidance capabilities for parachutes continue to increase, additional land space is required to encompass the larger SSZs associated with the airdrops and provide a buffer between the Drop Zone and publicly accessible land. Additionally, Highway 95 would provide a physically identifiable boundary for the installation.

If withdrawn and reserved for military purposes, this area would provide the capability to test at current and future airdrop altitudes that are not currently achievable, as well as perform complex test scenarios (i.e., airdrops to multiple Drop Zones) that are also not currently achievable. Range test capacity would be increased, and tests could be completed on existing infrastructure and terrain that meet individual testing needs.

Lands withdrawn and reserved for use by YPG would be managed in accordance with the Sikes Act (P.L. 86-797); Army Regulation (AR) 200-1, Environmental Protection and Enhancement; 32 CFR Part 651; Army policies and plans; other applicable resource management and environmental statutes; and YPG-specific management plans and standard operating procedures (SOPs).

The alternatives analyzed in the LEIS include:

- **Alternative 1**: Congress would withdraw and reserve for Army use the same area, with the same boundary and land management provisions as the Proposed Action; however, the duration of the Highway 95 withdrawal would be limited to a shorter period (e.g., 25 years) rather than being of indefinite duration. The Army would have the option to request an extension of the land withdrawal and reservation should there be a continuing military need for the land beyond the expiration date of the initial withdrawal term.
- **No Action Alternative**: Under the No Action Alternative, Congress would not enact legislation to withdraw and reserve the land as requested; the land would remain BLM-managed public land. Military testing and training would continue within the present-day YPG boundary. Military flight operations taking place in the Cibola Range that do not require larger SSZs would continue; however, in the absence of the requested land withdrawal area, YPG would not have the additional safety buffer space required to meet new, more advanced testing requirements safely and effectively. Under this alternative, YPG would not be able to effectively support the testing requirements for new air delivery technologies and aviation systems.

Existing Conditions and Environmental Impacts

The LEIS describes the existing resources and uses that could be affected by potential Army use of the land for the purposes specified, should it be withdrawn and reserved by Congress and indicates whether the Proposed Action and alternatives have the potential to result in a change in each, relative to existing conditions. To ensure substantive issues were properly considered, the Army focused on important issues that were commensurate with the importance of anticipated impacts. Through this process, a number of resources were considered but subsequently dismissed from complete analysis in the LEIS because the proposal was determined to have no or minimal effect. These resources or uses include air quality, Areas of Critical Environmental Concern, climate change, floodplains, hazardous materials and wastes, health

and safety, livestock grazing, minerals, noise, prime and unique farmlands, soils, visual resources, water resources, wild horse and burro, and wilderness. A brief rationale explaining whether these resources or uses are present in the requested withdrawal area or are present but would have no to minimal effects, is presented.

Resources or uses identified as present in the requested withdrawal area and that may be affected are carried forward for detailed analysis in the LEIS. These include biological resources (vegetation and wildlife), cultural resources, land use, recreation, socioeconomics, and environmental justice. Summaries of the impacts to each resource under each alternative are provided in the following sections.

Biological Resources

If the requested withdrawal is enacted by Congress, transfer of management of the withdrawn land would not result in any impacts to biological resources; that is, because the withdrawal would mean merely that the Army, rather than the BLM, would be managing the land and there would be no physical impacts. Under the Proposed Action, YPG would revise the current Integrated Natural Resource Management Plan (INRMP) to include the withdrawn land, and both vegetation and wildlife would be managed in accordance with this plan. Conservation actions from the INRMP would be implemented for these newly withdrawn lands, protecting both vegetation and wildlife resources. This proposed action could result in beneficial effects, as the withdrawal would reduce the potential for land-disturbing activities to occur in the project area and eliminate the potential for future grazing and mining-related development from possible future mining claims. Since the requested withdrawal lands would be used as a safety buffer, ground disturbance and intrusion for military purposes are anticipated to be minimal. Loads that inadvertently land within the project area due to unintended failures of equipment, and operations to recover these loads, have the potential to damage vegetation and wildlife habitat. These activities could also result in disturbance to wildlife, including special status species. However, these circumstances are expected to be rare. Through implementation of proper procedures and best management practices (BMPs), impacts to vegetation and wildlife would be minimized. Impacts under Alternative 1 would be the same as those described for the Proposed Action; however, the duration of the effects would be for a shorter period (e.g., 25 years) rather than being of indefinite duration. Under the No Action Alternative, biological resources management would continue to be the responsibility of BLM, and ongoing and potential impacts to vegetation, wildlife, and wildlife habitat would continue from public uses of the land, including recreation uses such as off-highway vehicle (OHV) use.

Cultural Resources

If the requested withdrawal is enacted by Congress, transfer of management of the withdrawn land would not result in an “alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for” the National Register of Historic Places (36 CFR 800.16). Because the transfer of management would mean only that the Army, rather than the BLM, is managing the land, there would be no potential for effects. Under the Proposed Action, the current cultural resource protections would be in place after the transfer of management; however, the Army would be responsible for their protection and management. YPG would comply with legislation codified in the numerous federal laws, regulations, Executive Memoranda and Orders, as well as Army-specific cultural resources management guidelines identified in the Integrated Cultural Resource Management Plan (ICRMP). Similar to the INRMP, YPG would revise the current ICRMP to include the withdrawn land, and cultural resources would be managed in accordance with this plan. YPG currently operates under a Programmatic Agreement (PA) among YPG, the Arizona State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the operations, maintenance, and development of YPG (2014). If the requested withdrawal is approved by Congress, compliance with Section 106 of the NHPA for Army use of these newly withdrawn lands would be achieved under the current PA, a subsequent program alternative, or the process identified in 36 CFR 800.3–800.6.

Use of the project area as a safety buffer would result in minimal ground disturbance. Recovery of any airdrop loads that inadvertently land within the SSZ encompassing the project area has the potential to affect cultural resources. Loads landing within the project area would be the result of unintended failures of equipment and are expected to be rare. Any effects would be uncommon and minor. SOPs and BMPs from the ICRMP and PA would be followed to minimize impacts to cultural resources. Established government-to-government consultation with affiliated Tribes would continue with the addition of the project area. Tribal access to areas of cultural importance in the project area would be coordinated with the YPG Cultural Resources Manager and managed in the same way the lands within the current YPG boundary are managed. The withdrawal would have a minor beneficial impact on the preservation of cultural resources by preventing unauthorized access and recreational use and precluding any possibility of future mining claims and associated mining-related activities that could impact cultural resources. Impacts under Alternative 1 would be the same as those described for the Proposed Action, however the duration of the effects would be for a shorter period (i.e., 25 years) rather than being of indefinite duration. Under the No Action Alternative cultural resources management would continue to be the responsibility of BLM. BLM would manage and protect cultural resources under requirements outlined in numerous federal laws, regulations, Executive Memoranda and Orders, and BLM-specific management guidelines.

Land Use

Under the Proposed Action, YPG would revise the INRMP to include the withdrawn land, and the resources present would be managed according to this plan. Due to the reduction in public use and elimination of future grazing and elimination of any possibility of future mining claims and associated mining-related activities, the reduced potential for land-disturbing activities to occur could result in beneficial environmental effects. The project area would continue to be available for current authorized rights-of-way (ROWs). Several of these existing ROWs are located within the BLM-designated Parker-Blaisdell utility corridor that runs in parallel with and centered along Highway 95. For potential ROW applications within this utility corridor, BLM would first try and locate the requested ROW outside of the project area. If a requested new utility corridor ROW is of regional significance, and cannot be located outside of the withdrawal area, BLM would consult with the Army to mitigate as much as possible, any potential non-compatible impacts of approving such a ROW request. For any future ROW applications outside of this utility corridor, that are within the project area, these ROW requests would be analyzed on a case-by-case, site-specific basis in consultation with the Army to ensure that such actions do not interfere with the military purpose of the withdrawal. Impacts under Alternative 1 would be the same as those described for the Proposed Action; however, the duration of the effects would be for a shorter period (i.e., 25 years) rather than being of indefinite duration. Under the No Action Alternative, the BLM Yuma Field Office would retain management responsibility for uses of the 22,000 acres of public lands. As these lands are near the boundary of YPG, it is still possible that parachute loads could inadvertently drift beyond YPG lands. In the event this happens, YPG would follow BLM guidance and procedures for recovering any item that falls on public land.

Recreation and Public Access

Under the Proposed Action, public uses of the land would be managed in accordance with applicable Army regulations, procedures, and management plans, including YPG's INRMP. YPG would expand its current recreational hunting permit system on the installation to the project area. Public access would be restricted to those with specific authorization such as with hunting permits, and would only be allowed to the extent it would be consistent with safety and security requirements, in accordance with the Sikes Act (P.L. 86-797). Dispersed recreation and occasional OHV use would continue to be available on surrounding BLM lands. Overall, because of the low levels of use in the project area and the vast number of surrounding lands with higher quality recreational opportunities, impacts would be minor. Impacts under Alternative 1 would be the same as those described for the Proposed Action; however, the duration

of the effects would be for a shorter period (i.e., 25 years) rather than being of indefinite duration. Under the No Action Alternative, the BLM Yuma Field Office would continue its responsibility for management of public access for recreation in accordance with the BLM Yuma Field Office Record of Decision and Approved Resource Management Plan (RMP) (BLM 2010) without change from current conditions.

Socioeconomics and Environmental Justice

Use of the project area as a safety buffer under the Proposed Action would expand the SSZs and enable air delivery systems to be tested to their full capabilities for altitude and precision. Existing jobs related to the testing of air delivery systems would be retained; however, there is no expectation of increased workforce resulting from the withdrawal and therefore, direct impacts to population trends, income characteristics, economic profiles, or housing are not expected. It is unlikely that the area would be developed or changed from its current status in the future under the present BLM management; therefore, the withdrawal is not anticipated to have any adverse socioeconomic impacts. There is currently no mining in the area and the potential for mineral resources is low (BLM 2022); thus, a loss in revenue from the loss of mining in the future is not anticipated.

The requested withdrawal area is located at sufficient distances from populated areas such that there would be no disproportionate impacts to low income or minority populations. If the withdrawal is authorized by Congress, there would be no increase in emissions and the Army's use of the project area as a buffer would not result in air quality impacts. Short-term fugitive dust and emissions increases associated with fuel combustion would occur if recovery activities were required following errant air drop operations. These sporadic impacts would be of short duration and are anticipated to be rare and would not cover distances great enough to have any effect on surrounding Environmental Justice communities. Noise levels would increase temporarily when personnel are in the area preparing for any recovery operations. Ground-disturbing activities from loads inadvertently landing within the project area or during recovery operations would not generate sufficient noise to leave the area or affect members of the public. These activities are short in duration and anticipated to be rare, and the noise environment would return to ambient levels following any recovery activities. The area is remote and noise levels from equipment or vehicle noise would be below existing noise levels from vehicles and other sources associated with populated areas; therefore, there would be no adverse effects on any Environmental Justice communities.

Socioeconomic and Environmental Justice impacts under Alternative 1 would be the same as under the Proposed Action for the duration of the withdrawal. After the withdrawal term expires, management of the project area would revert to the BLM unless another withdrawal term is approved by Congress. If the No Action Alternative is selected, the BLM Yuma Field Office would retain management responsibility for uses of the 22,000 acres of public lands. No changes in socioeconomic conditions or Environmental Justice impacts would be anticipated.

1 INTRODUCTION AND PURPOSE OF AND NEED FOR ACTION

1.1 Introduction

The Yuma Proving Ground (YPG), located in southwestern Arizona (Figure 1-1), is the U.S. Army's (Army) premier Natural Environments Test Center. YPG, which has the ideal climate, terrain, size, and airspace to create perfect testing and training conditions for military equipment, weapons, vehicles, and aviation systems, is enhanced by being physically distant from urban encroachment and any accompanying community noise concerns. In 1951, the Yuma Test Station was established to serve as a multi-purpose test center that took on the vast majority of the nation's artillery testing workload. With a large land area, the Yuma Test Station was responsible for testing many types of armored vehicles and air drops of cargo (e.g., parachutes). When the Army reorganized in 1963, the installation was renamed YPG. Today, YPG continues to lead the nation in military testing, increasing the quality and safety of America's combat forces.

The YPG boundary encompasses 829,565 acres (approximately 1,300 square miles) of land withdrawn under Public Land Order (PLO) No. 848 issued on July 1, 1952, as amended, and reserved for use by the Army in connection with the Yuma Test Station (currently YPG). YPG is divided into three regions (Figure 1-1):

- **Kofa Region**. Contains the Kofa Range, which is YPG's primary firing range for artillery, mortars, and direct fire testing.
- **Laguna Region**. Consists of a variety of special test courses to measure vehicular performance data over natural desert terrain.
- **Cibola Region**. Contains the Cibola Range, which is the most highly instrumented helicopter armament test range in the United States with the capabilities to test aviation systems and munitions, armed helicopters, air delivery systems, unmanned aircraft, and precision navigation systems.

1.1.1 Process for Authorizing the Withdrawal

Expanding the withdrawal area involves interconnected processes that are guided by the Defense Withdrawal Act of 1958 (Public Law [P.L.] 85-337, 43 United States Code [U.S.C.] Sections 155-158), more commonly known as and hereinafter referred to as the "Engle Act;" the Federal Land Policy and Management Act of 1976, as amended (FLPMA) (43 U.S.C. 1714); and the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321-4370(h)). The process for requesting the addition of land to YPG was initiated when the Secretary of the Army submitted a withdrawal application for approximately 22,000 acres of public land to the Bureau of Land Management (BLM) for processing on behalf of the Secretary of the Interior on September 9, 2021. The application was prepared in accordance with the Engle Act, FLPMA, and federal land withdrawal application processing regulations (43 *Code of Federal Regulations* [CFR] Subpart 2310). These interconnected regulations share certain functions, are mutually supportive, and afford stakeholders opportunities to comment on the requested addition to YPG.

This Legislative Environmental Impact Statement (LEIS), which was prepared in accordance with the Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) for implementing NEPA, satisfies the 40 CFR Part 1506.8(a) requirement for a proposal for legislation that significantly affects the quality of the human environment.

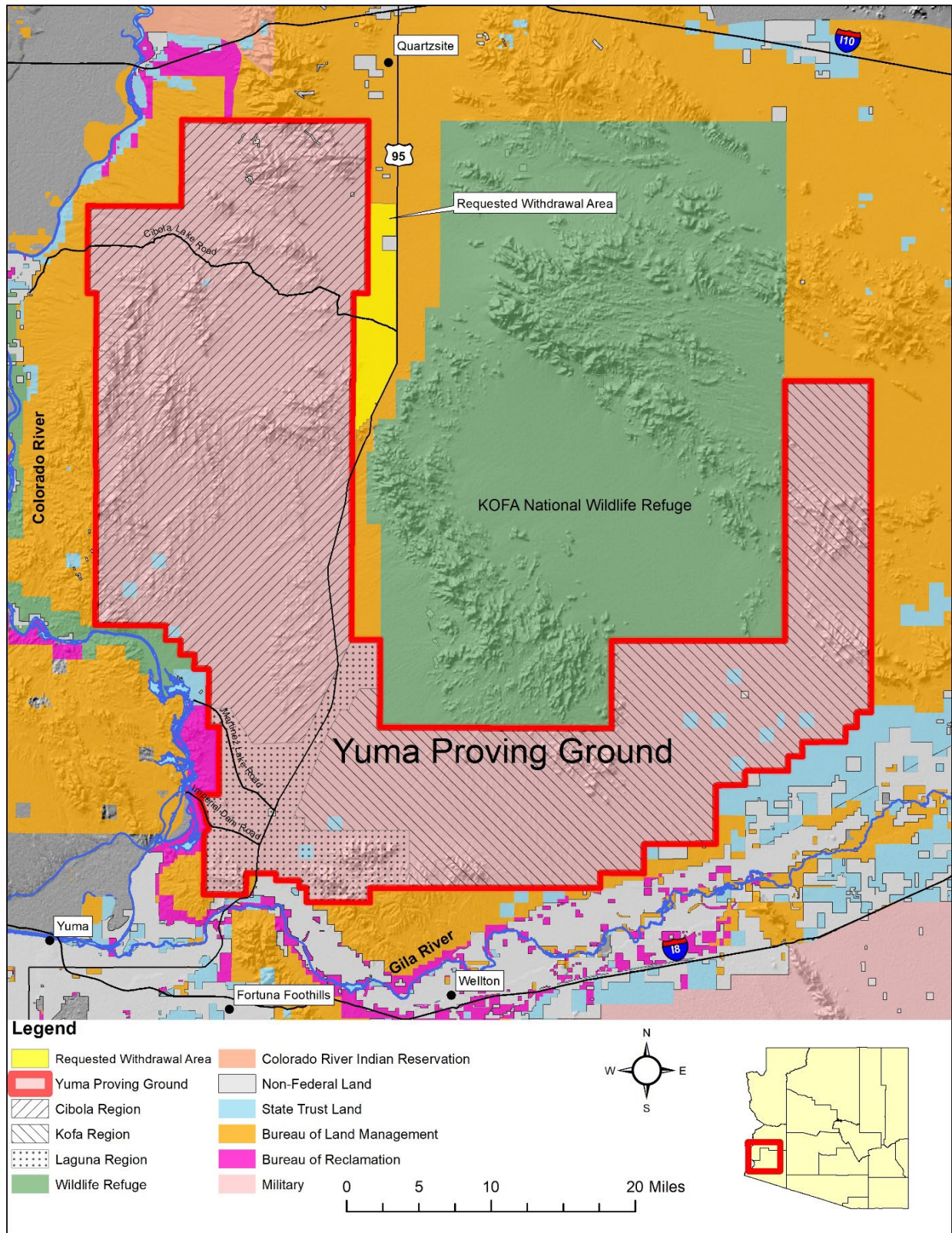


Figure 1-1. YPG Location Showing the Project Area.

This LEIS is one component of the land withdrawal case file to be submitted to Congress. Other components include:

- A report identifying the present users of the lands involved, explaining how the users would be affected by the proposed use and analyzing the manner in which existing and potential resource uses are incompatible or conflict with the proposed use of the lands and resources that would be affected by the requested action.
- A mineral resource analysis prepared by a qualified mining engineer, engineering geologist, or geologist.
- An analysis of the economic impact of the proposed uses and changes in use associated with the requested action on individuals, local communities, and state and local government interests.
- A statement as to the extent the public participated in the environmental review process.
- A statement as to whether the lands involved are floodplains or are considered wetlands, and whether the existing and proposed uses would affect, or be affected by, such floodplains or wetlands.
- A statement of the consultation or coordination with appropriate agencies or individuals that has been, or will be, conducted regarding the requested action.

The application for the requested land withdrawal was prepared and submitted to the BLM Arizona State Office in accordance with 43 CFR Subpart 2310. Upon completing its review of the LEIS and other components of the case file, the Department of Defense (DoD) and U.S. Department of the Interior (DOI) will prepare and submit draft legislation specifying the withdrawal and reservation requested for Congressional consideration. If Congress enacts the withdrawal for defense purposes, YPG will revise its existing Integrated Cultural Resources Management Plan (ICRMP) and Integrated Natural Resources Management Plan (INRMP) to include any areas withdrawn and reserved, consistent with any applicable terms of the legislation. The land withdrawal LEIS process is depicted on Figure 1-2.

1.1.2 Decision to be Made

Congress would be asked to decide whether to expand YPG by passing legislation that would withdraw and reserve for military purposes approximately 22,000 acres of public land adjacent to the eastern border of YPG's Cibola Range. Congress may authorize the withdrawal and reservation for either a defined or indefinite period or may decline to withdraw the land by taking no further action. A congressional decision to approve the addition would make the area available to support military operations at YPG. If the withdrawal is not authorized, the subject public lands would continue to be managed by the BLM for multiple uses.

The Army is the lead agency preparing this LEIS. An LEIS, rather than an administrative environmental impact statement, is being prepared for this Proposed Action because the withdrawal and reservation requires congressional action for implementation. Under the Engle Act, only Congress can approve a requested withdrawal of more than 5,000 acres of land in the aggregate for any one defense project or facility. A Record of Decision will not be prepared because Congress is the decision maker for this requested action. The LEIS will be submitted to Congress, who will express its decision by either passing legislation to approve its selected alternative or by taking no action, in which case, the land would remain under BLM management.

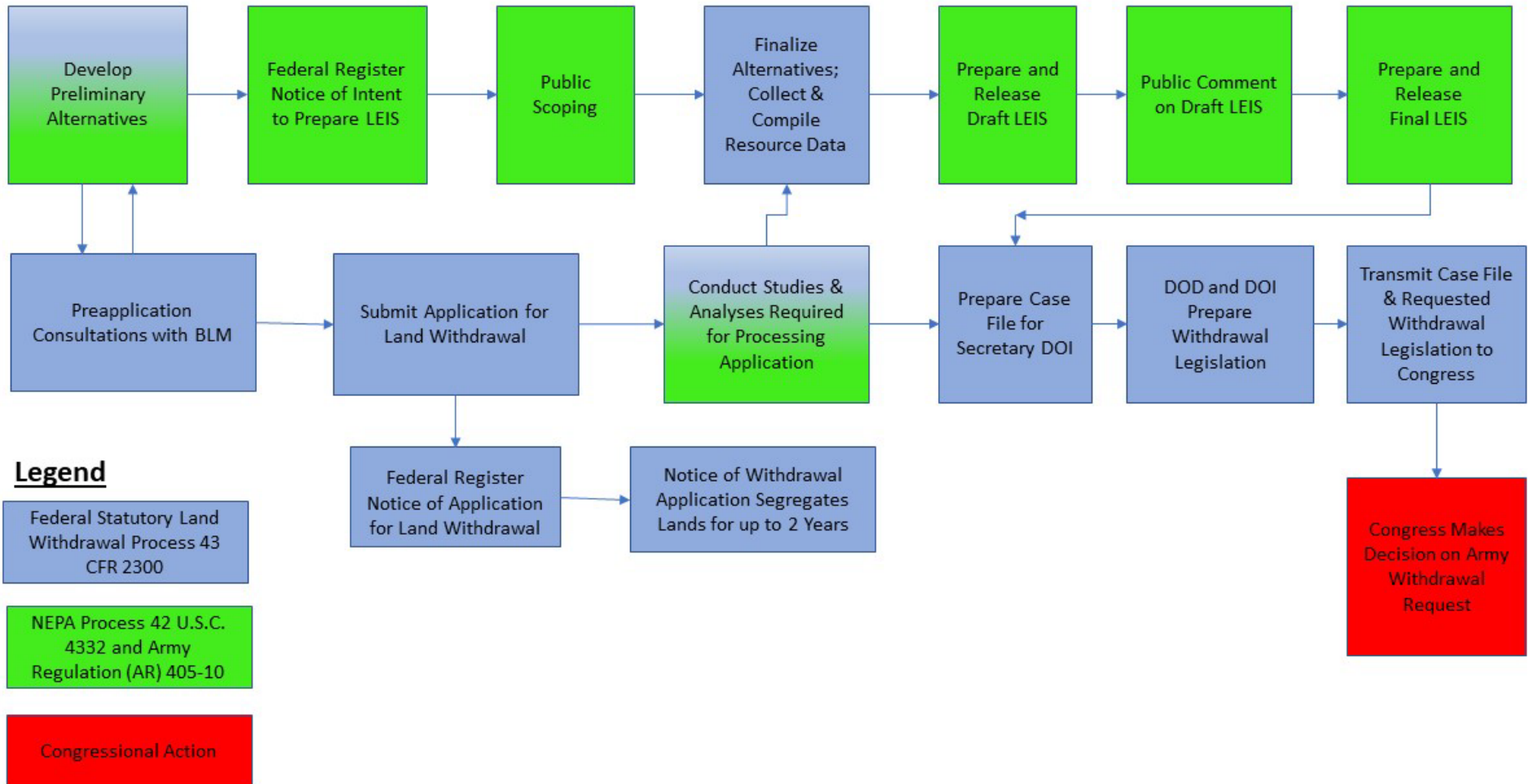


Figure 1-2. Federal Land Withdrawal and NEPA Processes for the Withdrawal Application.

1.2 Purpose and Need

The purpose of this action is to expand YPG's Cibola Range high altitude airdrop testing capabilities (for maintenance of soldier readiness) and ensure public safety by Congress withdrawing and reserving these public lands adjacent to the eastern border of the YPG Cibola Range. Expansion of the withdrawal at YPG is needed to adequately support current and emerging testing and training requirements for advances in Global Positioning System (GPS)-guided parachute air delivery technology and tactical scenarios that necessitate a higher airdrop altitude, greater target offsets, and increased aircraft speed. Drops from higher altitudes are safer for the aircraft and crew because they are harder for enemy air defense systems to reach. Testing and training exercises from higher altitudes and airspeeds require larger surface safety zones (SSZs) than are currently available on Cibola Range. An SSZ is an area in space and on the ground that provides an additional safety buffer in case of error or failure.

The SSZ areas must be cleared of non-participating personnel during testing and training events. All areas outside the SSZ are considered safe for non-participating personnel. The land requested for withdrawal provides an adequate SSZ area to accommodate testing and training for higher altitude parachute releases and provides an additional safety buffer area in case of release point errors and system failures.

If approved, the requested land withdrawal and reservation for military purposes would be subject to valid existing rights and would include approximately 22,000 acres of public land currently managed by the BLM (Figure 1-3). The 22,000 acres consists of two contiguous parcels:

1. An area of approximately 21,200 acres would be withdrawn from all forms of appropriation under the public land laws, including location and entry under the United States mining laws, and from leasing under the mineral and geothermal leasing laws.
2. A non-Federal entity owns the subsurface rights to 800 acres within the area requested for withdrawal. For these 800 acres, the Army requests the lands be withdrawn from all forms of appropriation under the general land laws but not the United States mining laws and mineral and geothermal leasing laws.

If approved, the area requested for withdrawal would extend the YPG boundary to Highway 95. Using Highway 95 as a physically identifiable boundary for the installation would decrease the probability of unintended access and therefore increase public safety. Additionally, the maintenance of boundary identification would be simplified by using the improved road.

Advancements in air delivery technologies and aviation systems have exceeded the test capabilities that can be performed within the Cibola aircraft testing region. Currently, air delivery systems are not tested to their full capabilities for altitude and precision because of land and airspace limitations. Higher elevation and GPS-guided air delivery methods are being developed to provide better support to soldiers and other personnel in the field. The GPS-guided system allows payloads¹ to be delivered at the intended location while providing the flexibility to keep aircraft and crews out of harm's way at higher altitude. These systems require larger SSZs to contain equipment failures that could drift off course. The larger SSZ allows exclusion of the public and other non-participating persons, thereby reducing risks.

If the Proposed Action is not implemented (i.e., if Congress does not enact a withdrawal and reservation as requested), air drops would be limited to the current SSZs and not allow testing of the full capability and precision of the new systems. The Army would be curtailed from conducting state-of-the-art testing and training for soldiers, increasing the probability of airdrop material landing outside of the intended target, possibly resulting in the loss of the material or requiring substantial additional efforts to retrieve it.

¹ A payload is a palletized package of various weights and items (i.e., a vehicle, equipment, and/or supplies), as well as personnel.

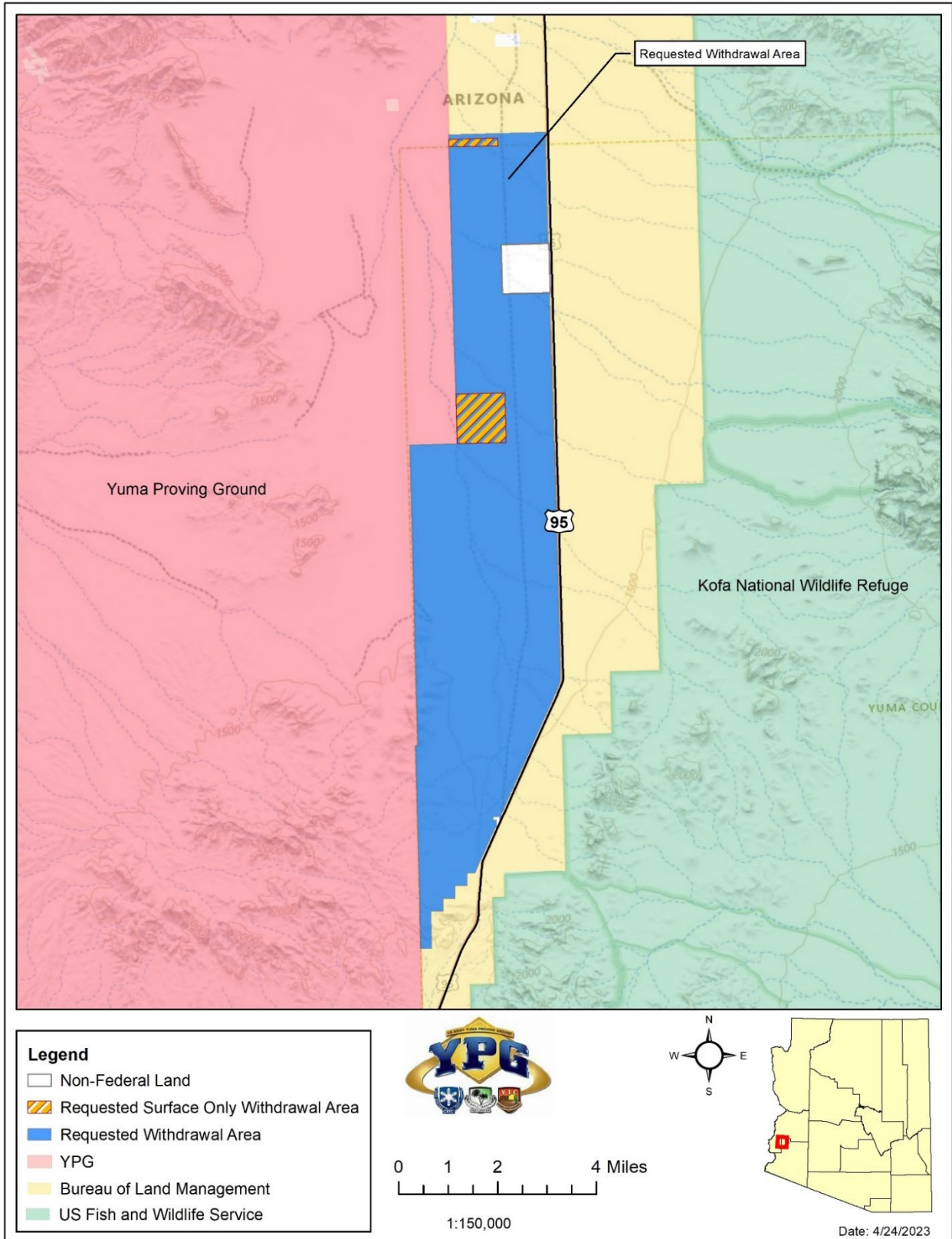


Figure 1-3. Requested Withdrawal Location.

1.3 Public Outreach, Consultation, and Coordination

1.3.1 Cooperating Agencies

The Army, as the lead federal agency for the NEPA compliance associated with their withdrawal application, is required to invite other federal agencies with administrative jurisdiction to participate as a cooperating agency in the NEPA analysis and document preparation (40 CFR Part 1501.8). The BLM is participating as a cooperating agency for this LEIS. An Inter-Agency Agreement has been developed between YPG, BLM, and the U.S. Army Corps of Engineers (USACE) to define each agency's roles and responsibilities for preparation and submission to Congress of the land withdrawal application, case file reports, and LEIS (June 2021). As the NEPA lead agency, the Army is responsible for preparing the LEIS. The Army has worked with the BLM to obtain technical input in preparing the NEPA analysis, and to ensure that the LEIS considers each agency's regulatory and management authority. As a cooperating agency, the BLM provides support and review of LEIS documents and participates in public scoping meetings. The BLM has offered expertise in reviewing cadastral survey data and validating the Land Surveyor Report; providing data regarding the public land in the area requested for withdrawal; and reviewing documents prepared for the case file that will support the project's draft legislative proposal. Additionally, as the current land management agency and as part of the BLM's responsibility under Section 204 of FLPMA to process federal land withdrawals, the BLM is responsible for ensuring the completeness of the case file submission to the Secretary of the Interior for transmission to Congress. The USACE Real Estate Division is responsible for acquiring, managing the title, granting of use, and disposing of real property for Army installations. In this capacity, USACE is responsible for submittal of the withdrawal application to the BLM on behalf of the Army.

1.3.2 Public Involvement

The environmental analysis process includes coordination with area Native American Tribes, U.S. Fish and Wildlife Service (USFWS), and other federal, state, and local agencies. During the public involvement process, YPG and the BLM solicited input on potential alternatives, information, and analyses relevant to the Proposed Action. The scoping process for the LEIS included a comment period and public meetings. The public meetings provided background information, a description of the LEIS process, and an opportunity to identify and comment on issues and alternatives.

Federal, state, and local agencies with special expertise with respect to environmental issues associated with the Proposed Action have been notified at various times during the development of this LEIS, including during the scoping period. During the process, YPG coordinated with additional agencies and entities (including USFWS, Arizona Game and Fish Department, Arizona State Lands Department, Yuma and La Paz Counties, and the City of Yuma and Town of Quartzsite) prior to publishing the Notice of Intent (NOI) and initiating public scoping for the LEIS. Details on public outreach and scoping are documented in the Scoping Summary Report prepared for this project and incorporated herein by reference. A summary is included below and more details are provided in Chapter 4.

The Army and BLM jointly held four public meetings to solicit public comments on the requested land withdrawal. The virtual meetings were held on the following dates:

- June 7, 2022, 3:00 PM Mountain Standard Time (MST),
- June 8, 2022, 5:00 PM MST,
- October 19, 2022, 3:00 PM MST, and
- October 20, 2022, 5:00 PM MST.

The BLM published a “Notice of Withdrawal Application and Notice of Public Meetings” for the application process in the *Federal Register* on April 4, 2022. The Army published a NOI for the LEIS in the *Federal Register* on September 9, 2022. The Army placed Notices for the June 7 and 8 meetings in the *Yuma Sun* and *Bajo el Sol* on July 13, 2022, and in the *Desert Messenger* on April 20, 2022. The October 19 and 20 meetings were announced in the *Yuma Sun* on September 18 and 19, in the *Desert Messenger* on September 21, 2022, and in the *Bajo el Sol* on September 23, 2022.

Overall, eight members of the public attended the meetings. One member of the public attended the June 7 meeting, two attended the June 8 meeting, three attended the October 19 meeting, and two attended the October 20 meeting. Two comments were received on the BLM process: one from an organization and one from an individual member of the public. Six comments were received on the LEIS process: one from an individual member of the public, three from agencies, and two from organizations.

1.3.3 Additional Coordination

The Army is requesting the withdrawal of 22,000 acres from all types of appropriation and the reservation of the land for its use under the Engle Act. A withdrawal is a type of administrative activity that does not have the potential to cause effects to historic properties, pursuant to 36 CFR Part 800.3(a)(1), and is not subject to further review under Section 106 of the National Historic Preservation Act (NHPA), nor is legislative action subject to the NHPA. Should Congress withdraw and reserve the land requested for Army use, the Army anticipates compliance with any Section 106 requirements for any future undertakings, including, as appropriate, consultation with the Arizona State Historic Preservation Officer (SHPO).

Similarly, as an administrative function, the land withdrawal, if approved by Congress, would not alter the existing land use within the requested Highway 95 withdrawal area and there would be no additional impacts to listed species that were not already addressed in previous Section 7 Consultation. The Army coordinated informally with the US Fish and Wildlife Service (USFWS) to develop a Biological Assessment (BA) as a thorough evaluation of these lands for potential affects to ESA-listed species. Further, should Congress withdraw and reserve the land requested for Army use, the Army anticipates compliance with any Section 7 requirements for any future actions, including, as appropriate, consultation with the USFWS.

Executive Order (EO) 13175, *Consultation and Coordination with Indian Tribal Governments* (6 November 2000), directs federal agencies to coordinate and consult with Tribal governments whose interests might be directly and substantially affected by activities on federally administered lands. Although there would not be a direct or substantial affect to Native American Tribes, the Army will continue to engage interested Tribes for input throughout the NEPA process and participate in the open exchange of information about the requested land withdrawal with a focus on incorporating Tribal input into the LEIS.

1.4 Applicable Regulatory Requirements

The Army is preparing its application for the withdrawal and reservation of public land for defense purposes in accordance with the Engle Act and FLPMA, which have been discussed in Section 1.1.1 above. The Draft LEIS has been prepared in accordance with NEPA and CEQ regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508). The LEIS will also be prepared in accordance with other statutes, regulations, ordinances, rules, and/or policies and instructions, as applicable.

2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Introduction

The LEIS analyzes the Proposed Action and alternatives, including the No Action Alternative. Reasonable alternatives must satisfy the purpose of and need for the Proposed Action. The Proposed Action and action alternatives were developed in consideration of:

- The need for additional land to support current and emerging military testing and training.
- Comments received from the public, Tribes, and cooperating and reviewing agencies.
- Environmental, technical, and other factors.

The No Action Alternative would be implemented if Congress does not pass legislation to withdraw and reserve the land for military use.

2.2 Proposed Action

The Proposed Action is the withdrawal and reservation of approximately 22,000 acres of BLM-managed public lands for military purposes associated with YPG, located west of Highway 95 and adjacent to YPG's North Cibola Range (Figure 1-1). Highway 95 would provide a physically identifiable installation boundary. Signage would be added similar to that along the existing boundary; no fencing would be installed. As explained above, this action may only be taken by Congress. The Army's request is that Congress withdraw and reserve the land for military purposes for an indefinite period, until there is no longer a military need for the land. Withdrawing the land for an indefinite period would be beneficial for multiple reasons. As discussed in Section 1.2, there is a continuing need (with no foreseeable end) for the additional land to support testing of current and future military advancements, and the existing withdrawal for YPG (authorized by PLO No. 848, as amended) is for an indefinite term. A withdrawal for an indefinite period would better accommodate long-term planning and testing and training requirements to support emerging technologies. There will always be improvements in aerial delivery systems that require testing. The continued testing capabilities provided by these lands would be vital to the enduring readiness and preparation for future technological developments to support the Army. Additionally, withdrawal for an indefinite period would reduce the time consuming and expensive process required to extend the land withdrawal periodically (see discussion in Section 2.3). If the demonstrated military need for the addition should end, the Army would prepare to relinquish use of the land to the Secretary of the Interior according to a well-established FLPMA process, or as directed by Congress.

The 22,000 acres requested for withdrawal and reservation are located adjacent to the current boundaries of YPG. The La Posa Drop Zone, which adjoins the BLM-managed lands, was specifically established due to its soil attributes that reduce risk of injury to parachutists and damage to air-delivered cargo loads. The Corral and Mojave Drop Zones are centrally located in the Cibola Range to maximize land and airspace to accommodate air delivery testing with larger SSZs. The additional safety buffer provided by the requested withdrawal area would enable more efficient use of these existing Drop Zones by allowing for expanded SSZs, which will facilitate more complex and higher altitude testing scenarios.

YPG works to ensure public safety during cargo drops through risk management protocols and changing test parameters. Crew airdrop release point errors and system failures, while rare, do occur. Higher altitudes and offset distances from the targeted location are needed for more complex testing scenarios to test the full capabilities of the parachute systems. YPG would continue to use the Drop Zones and infrastructure they have in place; however, as altitude and guidance capabilities for parachutes continue to increase, additional land space is required to encompass the SSZ associated with the airdrops and provide a buffer between the Drop Zone and publicly accessible land.

Figure 2-1 illustrates that with the additional safety buffer area, YPG could increase the testing altitude and the corresponding SSZ. In the scenario depicted, two bundles dropped from 25,000 feet at the red dot would be guided by parachute to the primary target (green dot) or the secondary target (blue dot), which are on existing Drop Zones on YPG. The SSZ for the current land boundary is the light green dashed circle, which represents the total area the payload could drift to in the event of a failure or malfunction from a 25,000-foot drop. Future testing, which would have a greater capability for dropping higher or having longer glide distances, would require a larger SSZ. The light blue dashed circle on Figure 2-1 depicts the SSZ for these higher drops. The additional safety buffer would also allow guided parachutes to glide to further Drop Zones as shown by the light blue dot.

If withdrawn and reserved for military purposes, this area would provide the capability to test at current and future airdrop altitudes that are currently unachievable, as well as complex test scenarios (e.g., airdrops to multiple Drop Zones) that are currently unachievable. Range test capacity would be increased, and tests could be completed on existing infrastructure and terrain that meets individual testing needs.

Legislative withdrawal and reservation of the area requested by the Secretary of the Army would not compromise natural and cultural resource protection, conservation, and management. Furthermore, it would not prevent Tribal, intergovernmental, and public review and comment opportunities on future actions proposed by the Army, or compliance with other legally required processes. Lands withdrawn and reserved for use by YPG would be managed in accordance with the Sikes Act (P.L. 86-797); Army Regulation (AR) 200-1, *Environmental Protection and Enhancement*; 32 CFR Part 651; Army policies and plans; other applicable resource management and environmental statutes; and YPG-specific management plans and standard operating procedures (SOPs), including, but not limited to:

- INRMP (YPG 2023a).
- ICRMP (Versar 2016).
- Yuma Proving Ground Standing Operating Procedure for Yuma Test Center Range Operations YPY-RO-P-1000 (YPG 2020).

Stakeholders already have frequent opportunities to review and comment on how the Army is managing public access, as well as the natural and cultural resources at YPG. Should Congress enact legislation to withdraw and reserve the lands for Army use, not only would the Army provide for appropriate public reviews of NEPA documents for new proposals, public review and comment opportunities would continue through future revisions of the INRMP and ICRMP to incorporate these newly withdrawn lands. The Sikes Act includes resource management policies and guidance for U.S. military installations and requires that the Secretary of Defense carry out a program to provide for the conservation and rehabilitation of natural resources on military installations. Furthermore, the Sikes Act supports the sustainable multipurpose use of the resources, which includes hunting, fishing, trapping, and non-consumptive uses, which are subject to safety requirements and military security (16 U.S.C. 670a (a)(3)). In accordance with the Sikes Act, public access to YPG would continue to be permitted to the extent that it would be consistent with the safety and security requirements of the military purposes of the land. The YPG INRMP, which has been prepared to facilitate implementation of that program, provides detailed guidance on how the natural resources of the installation will be managed. The INRMP would be revised in accordance with DoD Instruction (DoDI) 4715.03 regulations, including annual reviews and updates no less than every 5 years. The BLM would continue to administer these lands, including the overlapping Parker Blaisdell utility corridor under the authority provided by FLPMA and other applicable laws and regulations. Finally, the existing 1978 YPG/BLM Wild Free-Roaming Horses and Burros Memorandum of Understanding (MOU), as amended, provides management guidance for wild horses and burros on YPG, in accordance with the Wild Free-Roaming Horses and Burros Act of 1971 (P.L. 92-195). The Army and BLM would continue to manage wild horses and burros on these lands consistent with this MOU and would revise as needed.

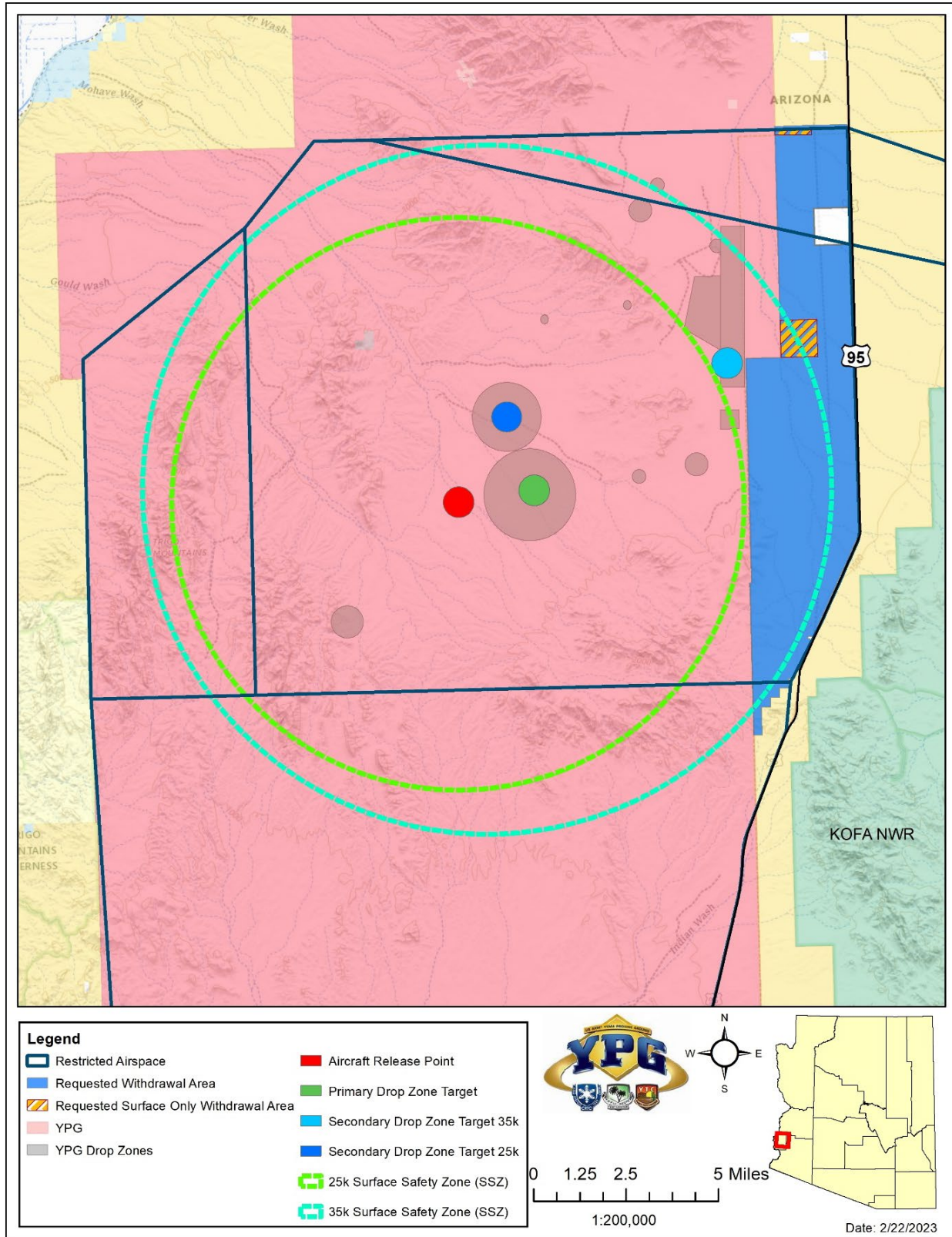


Figure 2-1. Example of a SSZ that can be supported with the Requested Withdrawal Area.

2.3 Alternative 1-Withdrawal of Shorter Duration, Such as 25 Years

Under Alternative 1, Congress would withdraw and reserve for Army use the same area, with the same boundary and land management provisions as the Proposed Action; however, the duration of the Highway 95 withdrawal would be limited to a shorter period (i.e., 25 years) rather than being of indefinite duration. The Army would have the option to request an extension of the land withdrawal and reservation should there be a continuing military need for the land beyond the expiration date of the initial withdrawal term. The process for requesting a congressional extension of a major military range typically requires 8 to 9 years and does not contribute to more effective military operations or to better environmental stewardship. The Army's effort for this YPG land withdrawal request requires engagement of range, airspace, conservation, real estate, legal counsel, and other technical support personnel at the local installation, major command, and headquarters levels. Cooperating agencies also invest many work hours as staff participate in monthly coordination calls, review documents, and provide data and other support in their areas of expertise. In addition, costs for contract support, together with compliance with real estate and cadastral survey requirements, contribute to the total expense.

Regardless of the period of any withdrawal, if the demonstrated military need for the requested withdrawal should end before the selected term ends, the Army would notify Congress and the Secretary of the Interior of its intent to relinquish the withdrawn land. In this case, the Army would relinquish their use of the public lands within the withdrawal area to the Secretary of the Interior. Unless Congress provided for an alternative use for the land, the Secretary of the Interior would determine whether the land: 1) is suitable for restoration to the public domain, 2) should be withdrawn for other purposes, or 3) should be disposed of through the General Services Administration.

2.4 No Action Alternative

Under the No Action Alternative, Congress would not enact legislation to withdraw and reserve the land as requested; the land would remain BLM managed public land. The BLM Yuma Field Office would retain management responsibility for the 22,000 acres of public lands. The BLM public lands would continue to be managed pursuant to FLPMA, the BLM *Yuma Field Office Record of Decision and Approved Resource Management Plan* (RMP; BLM 2010), and other applicable laws and regulations.

Military testing and training would continue within the present-day YPG boundary under a No Action Alternative. Military testing and training taking place in the Kofa and Laguna regions would not be affected by the No Action Alternative. The SSZ depicted by the light green outline circle on Figure 2-1 would remain and would limit how far or high YPG could test. Military flight operations taking place in the Cibola Range that do not require larger SSZs would continue; however, in the absence of the requested land withdrawal area, YPG would not have the additional safety buffer space required to meet new, more advanced testing requirements safely and effectively. Under this alternative, YPG would not be able to effectively support the testing requirements for new air delivery technologies and aviation systems. The larger SSZ required to test the full capabilities of parachute systems would not be supported. The present-day limited airdrop test capability would continue and the ability to meet greater testing objectives would be restricted. Without the capabilities to test new and existing technologies to their full capabilities, the development and safety of the Army's combat forces would be significantly hindered. Additionally, without the requested withdrawal safety buffer area, drop materials could land in the 22,000 acres outside the current YPG boundary, where the public may be present. Furthermore, there would not be a physical landmark as easily identifiable as Highway 95 to clearly demark the YPG boundary, which could prevent the public from inadvertently wandering onto the YPG and potentially interrupting testing and training activities.

While the No Action Alternative would not satisfy the purpose of or need for the Proposed Action, it is analyzed in accordance with CEQ and NEPA regulations to provide a baseline against which potential impacts can be compared.

2.5 Alternatives Considered but Eliminated

2.5.1 Other Land Use Authorizations

In addition to the withdrawal, other land use authorizations available for federal agencies, including a right-of-way or a cooperative agreement, were considered. Instructional Manual (IM) No. 2001-030 “Military Activities On and Over the Public Lands” provides policy guidance to the BLM regarding the use of public lands for federal military purposes. The primary statutory foundations for this IM are FLPMA and the Engle Act. The primary regulatory guidance is provided in 43 CFR Parts 2300, 2800, and 2900. The IM states the laws of the nation and the administrative history clearly indicate that titles to public lands rest with the U.S. Government, and that these lands are a national asset under the control of Congress. Congress has indicated that public lands are available for a variety of uses, including use by other federal departments.

Through FLPMA, Congress has placed the public lands under the jurisdiction of the Secretary of the Interior, to be administered by the BLM consistent with all the public lands laws and regulations. Proposals made to the BLM must be considered within the BLM’s existing processes, including land use planning, compliance with NEPA, other natural resource and cultural resource laws and EOs, and standard public participation practices. Factors that must be evaluated in decision making documents include RMP conformance, public safety, environmental affects, and effects on other public land users.

The type of authorization that may be permitted/granted or, in the case of withdrawal, recommended by a BLM authorized officer for the military’s use of the public lands is governed by whether the authorization is to be issued by a federal or state agency, and the extent and degree/intensity of the effects of the proposed activity. The BLM authorized officer has analyzed the proposed use to determine the type of authorization that would provide the Army with the authority and control necessary to carry out its activities in a reasonably safe and generally unimpeded manner, while maintaining as much use by other public land users as is feasible.

Using the guidelines provided in the IM, the BLM has determined that the appropriate authorization for this action would be a withdrawal. Although a right-of-way and a cooperative agreement were considered in place of a land withdrawal, they were dismissed from further analysis because they would not adequately preclude other uses that may interfere with the military testing mission and would not adequately control public access because of YPG’s dynamic testing schedule; therefore, they would not meet the Army’s need. In the case of this area, a land withdrawal is the only authorization option that would satisfy the Army’s requirements for safety and control of land access. The annual usage, daily duration, and impact to the public are not within the scope of a cooperative agreement. Absent a withdrawal and reservation, the Army would need to coordinate with the BLM to restrict access to the area so that they could proceed with testing without fear of impacting public safety. Because of the logistics of the BLM having to amend the RMP to establish a closed (except by permission) area, including setting up a permit system, to avoid public safety issues, as well as coordinating the permit scheduling with Army planned uses of the area, the Army and the BLM concluded that this alternative was impracticable.

2.5.2 Transfer of Administrative Jurisdiction

Although the Proposed Action includes the legislative withdrawal and reservation for military purposes of 22,000 acres of public lands for the Secretary of the Army, it does not transfer administrative jurisdiction to the Army. The agencies considered an alternative that would have transferred administrative jurisdiction for these lands to the Army. Such a transfer, if requested and approved by Congress, would potentially allow the Army to make administrative and management decisions for these lands, such as issuing authorizations to include rights-of-ways and leases, and even disposal of the subject lands, depending on the enacted legislation. This alternative was eliminated from further consideration because the Army concluded that BLM administration of these lands is more efficient and cost-effective in this requested safety buffer area, and their decision-making process would ensure future authorizations would include consideration of the military purposes for these lands. Furthermore, the Blaisdell-Parker utility corridor running along the eastern portion of the requested withdrawal is of critical importance for future infrastructure projects that would benefit from BLM administration.

2.5.3 Other Locations on YPG

Additionally, the Army considered other locations within the current YPG boundaries. As described in Section 2.2, the requested withdrawal area is located adjacent to La Posa Drop Zone, which was specifically established for soil attributes that reduce risk of injury to parachutists and damage to air-delivered cargo loads. Also Corral and Mojave Drop Zones are located in a valley west of the requested withdrawal area. The terrain and visibility within these drop zones are optimal for observation of tests and recovery of payloads. Relocation of this mission to another geographic location within YPG would not provide the same training-friendly physical characteristics for these Drop Zones, thus endangering personnel and equipment. The only other location on YPG with adequate airspace and physical characteristics would be on the east Kofa Firing Range. This is an active testing range for munitions on YPG, and much of the area contains unexploded ordnance (UXO) and as a result, would not be safe or compatible with air delivery testing. Therefore, this alternative was not carried forward.

2.5.4 Smaller Withdrawal Footprint

The Army considered whether to request a smaller area for withdrawal and reservation for military purposes; however, as explained above, the Highway 95 corridor is useful as a well-recognized feature for the public to understand where the boundaries of the safety zone would be. The La Posa Drop Zone, which adjoins the BLM-managed lands, was specifically established due to its soil attributes that reduce risk of injury to parachutists and damage to air-delivered cargo loads. The Corral and Mojave Drop Zones are centrally located in the Cibola Range to maximize land and airspace to accommodate air delivery testing with larger SSZs. The Army considered excluding the BLM's utility corridor from the area requested for withdrawal; however, the importance of the Highway 95 corridor for public recognition of the boundary, and the proposal for cooperation with the BLM regarding any ROW applications for this corridor precludes the necessity of evaluating this option in detail.

The additional safety buffer provided by the requested withdrawal area would enable more efficient use of these existing Drop Zones by allowing for expanded SSZs, which will facilitate more complex and higher altitude testing scenarios. These opportunities would diminish proportional to a reduction in lands withdrawn. A smaller buffer area would limit future testing scenarios as there would be less flexibility for placement and size of a SSZ to compensate for the use of differing aircraft direction, speed, wind direction, altitude and other factors affecting the flight path of parachute loads. Furthermore, the environmental effects of withdrawal and reservation of a smaller area would be qualitatively the same as those described for the Proposed Action, merely covering fewer acres.

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This chapter describes the affected environment (current and future expected conditions of the environment) and analyzes the potential environmental consequences (impacts or effects) that would occur as a result of implementing the Proposed Action and alternatives presented in Chapter 2.

The analysis of impacts includes all effects that are reasonably foreseeable and have a reasonably close causal relationship to the proposal. Cumulative effects are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time. (40 CFR Part 1508.1(g)(3)). For the purpose of this analysis, a 0.5-mile geographic buffer was evaluated to determine the area for consideration for projects and actions that could reasonably be expected to contribute to cumulative impacts when considered in conjunction with the Proposed Action.

The potential for other past, present, and reasonably foreseeable future actions to interact with the Proposed Action to create cumulative effects varies among the different resource areas. Each resource considered in this chapter is analyzed in terms of its ability to accommodate additional effects of the Proposed Action in combination with past, present, or reasonably foreseeable future projects. Projects or actions with the potential to contribute to cumulative effects include the existing uses of the project area, such as vehicle use on existing roads, dispersed recreation use (e.g., off-highway vehicles [OHVs]), existing rights-of-way (ROWs), invasive species management, and other BLM management actions. In addition, projects or actions within the 0.5-mile buffer could include Arizona Department of Transportation projects within the Highway 95 ROW; YPG actions, including updates to the INRMP and ICRMP; and BLM actions such as future energy development or transmission lines, future mining or grazing, recreational activities, RMP actions or updates, and other management activities.

To ensure substantive issues are properly considered, the Army focused on important issues commensurate with the importance of anticipated impacts. Through this process, a number of resources were considered but subsequently dismissed from complete analysis in the LEIS. Table 3-1 outlines the resources considered by YPG, indicates whether the Proposed Action has the potential to result in a change in each (relative to existing conditions), and provides the rationale for eliminating or carrying each resource forward for further analysis. Those resources or uses determined not to be present, or that are present but would only have negligible or minor impacts from the Proposed Action, need not be evaluated in detail or discussed further. Additional information about those resources that were not carried forward for full analysis in this chapter are provided in Appendices A through N. Those resources identified as present in the requested withdrawal area and where effects may be minor or greater were determined to warrant a detailed analysis; those resources are analyzed in detail in the following sections. The exception to this is cultural resources, which would not be affected by the transfer of management, but this resource is carried forward for analysis to provide a full description of the resource values.

Table 3-1. Resources and Rationale for Elimination or Detailed Analysis

Resource/Use	Present Yes/No	May Be Affected Yes/No	Rationale
Air Quality	Yes	No	The project area is currently in attainment for all National Ambient Air Quality Standards and the Proposed Action is not anticipated to impact air quality exceedances in the nearby Yuma particulate matter (PM ₁₀) or ozone nonattainment areas. There would be no increases in criteria pollutant, hazardous air pollutant, or greenhouse gas emissions in any nonattainment or maintenance area. Because the project area is located outside of designated maintenance and nonattainment areas, a General Conformity analysis is not required. Recovery of inadvertent loads dropped in the project area would not result in long-term increases in pollutants. There are no permanent or long-term sources of emissions being proposed in this area. Therefore, this resource is not carried forward for detailed analysis in the LEIS.
Biological Resources (Vegetation and Wildlife)	Yes	Yes	This resource is analyzed in detail in Section 3.2
Climate Change	Yes	No	Emissions from the Proposed Action would be minimal and temporary and would not have a measurable effect on climate change. Because the Army proposes no development or use of the land, other than as a safety buffer, the Proposed Action would have no effect on climate change within the project area. Therefore, this resource is not carried forward for detailed analysis in the LEIS.
Cultural Resources	Yes	No	This resource is analyzed in detail in Section 3.3.
Existing Land Use	Yes	Yes	This resource is analyzed in detail in Section 3.4.
Floodplains	Yes	No	The project area is classified as an area of Minimal Flood Hazard (Zone X) and has the potential to flood during extreme weather events that could result in a flood within the ephemeral washes. The requested land withdrawal would not alter the existing drainage pattern in a manner that would alter the existing floodplain and no ground-disturbing activities are planned that would be associated with occupancy or modification of floodplains or would support floodplain development in accordance with EO 11988, <i>Floodplain Management</i> . No construction or other modification of a floodplain area is proposed. Therefore, this resource is not carried forward for detailed analysis in the LEIS.
Hazardous Materials and Wastes	Yes	No	An Environment Baseline Study (U.S. Army 2022), incorporated herein by reference, was completed for the Army's requested withdrawal, and there was no evidence of hazardous materials observed and there would be no activities that would result in long-term storage or use of hazardous materials or wastes within the project area. Potential effects would be associated with the possibility of both hazardous materials being present within the loads being recovered and materials being released from the vehicles present during recovery efforts. Additionally, there is the potential for finding munitions and explosives of concern in the Formerly Used Defense Site (FUDS) area until remediation of the site occurs. There is a low likelihood of people encountering UXO or errant parachute drop recovery encountering OXU. The Army would follow established procedures to remove any

Table 3-1. (continued)

Resource/Use	Present Yes/No	May Be Affected Yes/No	Rationale
			materials that present a hazard. Through implementation of SOPs and best management practices (BMPs), impacts would be minimized and therefore, this resource is dismissed from detailed analysis in the LEIS.
Health and Safety	Yes	No	Health and safety concerns are currently managed by BLM through implementation of Public Health and Safety Management objectives found in Section 2.2 of the RMP (BLM 2010). If the requested withdrawal is enacted by Congress, transfer of management of the withdrawal land would not directly affect public health and safety. As a safety buffer between the drop zones and publicly accessible land, the Army would place restrictions on access to the area by the general public, preventing individuals from being present if a load potentially veers off course and lands within the safety buffer area. The Army would follow SOPs to minimize potential risks to public health and safety, such as the <i>Yuma Proving Ground Standing Operating Procedure for Range Operations</i> (YPY-RO-P-1000). Therefore, this resource is not carried forward for detailed analysis in the LEIS.
Livestock Grazing	No	No	There are two allotments that are unavailable in the requested withdrawal area (BLM 2010). Because livestock grazing is currently unavailable and unexpected to occur in the foreseeable future, there would be no impacts to livestock grazing from the requested withdrawal; therefore, this resource is not carried forward for full analysis in the LEIS.
Minerals	Yes	No	Based on the conclusions from the BLM prepared Mineral Potential Report (BLM 2021) for this requested withdrawal, these lands have a low potential for the occurrence of locatable and salable minerals, and moderate potential for the occurrence of leasable minerals. There are no active mining exploration or operations in the requested withdrawal area. Therefore, due to no current activities and the low potential for occurrence there would be no impacts to mineral resources as a result of the withdrawal; therefore, this resource is not carried forward for full analysis in the LEIS.
Noise	Yes	No	Congressional approval of the land withdrawal and the resulting transfer of management would not generate any new sources of noise, and use of the area as a buffer would likely result in a slight decrease in noise within the project area due to the reduction in OHVs and other recreation use. Noise levels would increase temporarily when personnel are in the area preparing for any recovery operations. Ground-disturbing activities during recovery would not generate sufficient noise to leave the area or affect members of the public. These activities are short in duration and anticipated to be rare, and the noise environment would return to ambient levels following any recovery activities. The area is remote and noise levels from equipment or vehicle noise would be below existing noise levels from vehicles and other sources associated with populated areas. There are no sensitive receptors within the vicinity of the requested withdrawal area that would perceive any temporary increase in noise. Noise impacts from the Proposed Action would be intermittent and negligible; therefore, this issue is not carried forward for detailed analysis in the LEIS.
Paleontological Resources	Yes	No	The requested withdrawal area contains two Potential Fossil Yield Classifications (PFYC) (BLM Instruction Memorandum 2016-124 Potential Fossil Yield Classification (PFYC) System for

Table 3-1. (continued)

Resource/Use	Present Yes/No	May Be Affected Yes/No	Rationale
			<p>Paleontological Resources on Public Lands [BLM 2016a] - https://www.blm.gov/policy/im-2016-124#:~:text=Policy%2FAction%3A%20The%20Potential%20Fossil,actions%20that%20involve%20surface%20disturbance%2CBLM Instruction Memorandum 2016-124). Primarily the area contains PFYC U which is "Unknown Potential" (shown as Qs on the map). This class makes up approximately 90% of the requested withdrawal area. These are geologic units that cannot receive an informed PFYC assignment and consist mainly of alluvial gravel, sand and silt in flood plains, terraces, fans and pediment cappings, but locally includes dune sand, lake deposits and landslide masses. Additionally, the requested withdrawal area includes areas with PFYC 2 which is "Low Potential" (shown as Qr and Ka on the map in Appendix H). This class makes up approximately 10% of the requested withdrawal area. These are geologic units that are not likely to contain paleontological resources. These areas shown as Qr on the map in Appendix H are comprised of rhyolitic flows and tuffs resting on a sedimentary deposit which is recognized only in Yuma County (Hirschberg and Pitts, 2000; OFR 00-409 (USGS); Arizona State 500K). In this PFYC 2 area, there are also geologic units shown as Ka on the map in Appendix H which are comprised of predominantly andesitic flows and tuffs. The requested withdrawal would be a federal-to-federal action therefore no adverse effects to paleontological resources are anticipated. However, the Army and YPG would be responsible for adhering to Paleontological Resources Preservation Act (16 U.S.C. 470aaa – 470aaa-11) as well as C.F.R. 43 Subtitle Part 49, Paleontological Resources Preservation for any future ground disturbing activities in this area.</p>
Prime/Unique Farmland	No	No	There is no prime/unique farmland in the project area. Therefore, this resource is not carried forward for detailed analysis in the LEIS.
Recreation and Public Access	Yes	Yes	This resource is analyzed in detail in Section 3.5.
Socioeconomic Resources and Environmental Justice	Yes	Yes	This resource is analyzed in detail in Section 3.6.
Soils	Yes	No	<p>The surface soils of the area were mapped and described by the U.S. Department of Agricultural Natural Resources Conservation Service and have been classified as aridic and hyperthermic. The majority of soils in the area range from extremely gravelly or cobbled sand to very fine, sandy loam. These desert soils are protected from erosion by the presence of cryptogamic crusts, desert pavement, and vegetation. Some of the soils in the requested withdrawal area have been previously disturbed by off-road traffic and are not in a pristine state. Any recovery operations for inadvertent drops within the project area would use established roads, washes, and adjacent surfaces to the maximum extent possible. Off-road excursions would be minimized. Through the implementation of proper procedures and best management practices (BMPs), impacts to soil resources would be minimized; therefore, this resource is dismissed from detailed analysis in the LEIS.</p>
Transportation and Infrastructure	Yes	Yes	This resource is analyzed in detail in Section 3.4.

Table 3-1. (continued)

Resource/Use	Present Yes/No	May Be Affected Yes/No	Rationale
Visual Resources	Yes	No	Lands within the requested withdrawal area are categorized as Class II and Class III Visual Resource Management areas in the RMP, the objective of which is to retain or partially retain the existing character of the landscape (BLM 2010). Class II allows a low level of change that does not attract the attention of a casual observer, and Class III allows a moderate level of change. The Army is not proposing any development in the withdrawal area or any modifications that would alter the character of the visual landscape; therefore, there would be no direct impact to the visual character. Use of the area as a buffer zone would not alter the existing visual resources. The Proposed Action would not obstruct, damage, dominate, or modify the view from public viewing areas and would not have an effect on the resource. This resource is not carried forward for additional analysis in the LEIS.
Water Resources	Yes	No	Ground disturbance resulting from recovery of airdrop loads that inadvertently land in the project area could result in accelerated erosion and sedimentation. Sediment could enter surface water in the form of stormwater runoff; however, the spatial separation between the project area and any waterways, along with the scarcity of rainfall, minimizes the potential for transport of sediment to any surface water body. Due to the depth to groundwater and the high evaporation rate for the area, no impact to groundwater is anticipated. Adverse impacts to water resources as a result of ground disturbance associated with the Proposed Action would be minimized through implementation of SOPs and BMPs described in existing YPG environmental plans, including the INRMP. Any impacts would be localized and negligible; therefore, this resource is not carried forward for additional analysis in the LEIS.
Wild Horse and Burros	Yes	No	A portion (approximately 2,876 acres) of the Cibola-Trigo Herd Management Area (HMA), which supports both wild horses and burros, is within the requested withdrawal area. The existing 1978 YPG/BLM Wild Horse and Burro MOU, as amended, provides management guidance for wild horses and burros on YPG. The Army and BLM would continue to manage horses and burros on these lands consistent with the MOU and revise as needed. No impacts to wild horses or burros would occur from the change in land management. Future management under the requested withdrawal would be the same as existing management on YPG lands. BLM would continue to monitor wild horse and burro populations and strive to maintain the populations at the appropriate management level in accordance with the RMP. Appendix M contains more detail regarding wild horse and burro management for the project area. Therefore, this resource is not carried forward for full analysis in the LEIS.
Wilderness or Lands with Wilderness Characteristics	No	No	There are no designated wilderness areas or lands with wilderness characteristics in the withdrawal area. This resource is not carried forward for full analysis in the LEIS.

3.2 Biological Resources

The landforms and habitats present on YPG support more than 320 species of plants, 33 species of reptiles and amphibians, and 47 species of mammals native to the Sonoran Desert. There are 137 native bird species that have been documented on the installation, 49 of which breed on YPG (YPG 2001). Because of the similarity in habitats, many of these species are likely to occur on the adjacent requested withdrawal area (herein after referred to as “project area”). The arid landscape generally supports only sparse stands of desert scrub dominated by creosote bush-white bursage plant communities, cacti, few trees, sparse annual forbs, and mixed grasses. Descriptions of the biological resources expected to be found in the project area are presented below; these include vegetative communities and general wildlife, as well as plant and animal species with special federal or state designations.

3.2.1 Vegetation

The Arizona Game and Fish Department (AZGFD) examined vegetation resources during their *Assessment of Vertebrate Tier 1A and 1B Species Presence and Vegetation Classification of the Requested Highway 95 BLM Withdrawal for the U.S. Army Yuma Proving Ground* in September 2022 (Ingraldi and Cobbold 2022). Vegetation classification supports the effective management and conservation of plant communities and has a diversity of other applications, including the assessment of potential habitat for wildlife, invasive species management, and fire management (Ingraldi and Cobbold 2022).

Within the project area, native vegetation corresponds to the Lower Colorado River Valley Subdivision of the Sonoran Desert scrub biotic community (Brown 1994). Topographic relief is more predominant in the southern portion, where mountain slopes are present and there is a higher diversity of vegetation community types. The northern portion of the project area is more characteristic of valley bottoms. Overall, vegetation is sparse and is mostly concentrated along washes that only flow during infrequent rain events. Tyson Wash flows south to north in the center of the project area and other smaller washes are present throughout. Washes that dissect the landscape include paloverde (*Parkinsonia* spp), ironwood (*Olneya tesota*), smoketree (*Psoralea argemone*), and mesquite (*Prosopis* sp.) species (Ingraldi and Cobbold 2022). Beyond the washes, desert pavement and relatively impermeable soils support much sparser levels of plant cover. Dominant vegetation in the valleys includes drought-tolerant species, such as creosote (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). In addition, several cactus species are present throughout, including cholla (*Cylindropuntia* spp.) and saguaro (*Carnegiea gigantea*).

Vegetation classification investigations performed by AZGFD documented nine vegetation classes within the project area. Creosote/mesquite floodplain was identified as the dominant class, comprising approximately 74% (16,123 acres) of the project area. Creosote with less than 10% cover of paloverde was the dominant class in the area with 11% (2,374 acres), and creosote on desert pavement with less than 5% cover of paloverde/ironwood was dominant on 5.4% (1,187 acres) of the project area. Areas impacted by human activity represented only 43 acres (0.2%) of the project area and consisted of rectangular depressions with graded and compacted soils. These areas occur at regular intervals along the eastern portion of the study area and often support mesquite woodlands. Mesquite bosques often result from water flow patterns and landscape alterations (e.g., borrow pits or berms) that have slowed surface flow, contributing to an increase in vegetation. Figure 3-1 and Table 3-2 represent the findings from the 2022 AZGFD study. Photographs 1 through 4 show typical vegetation in the area.

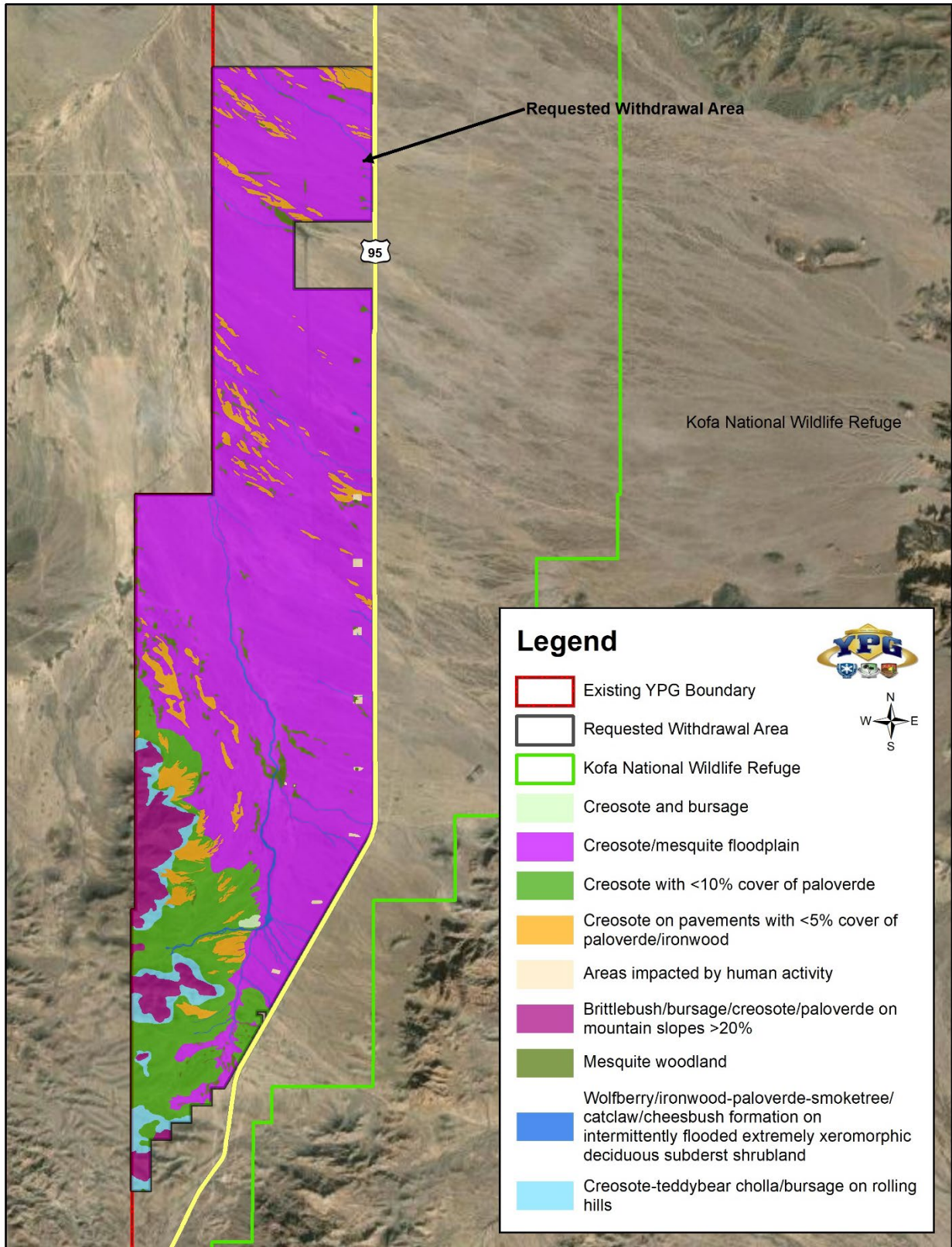


Figure 3-1. Vegetation Classification within the Project Area from the AZGFD Report.

Table 3-2. Vegetation Classifications in the Project Area

Vegetation Class	Acres	% Land Cover
Creosote and bursage	23	0.1
Creosote/mesquite floodplain	16,123	73.9
Creosote with <10% cover of paloverde	2,374	10.9
Creosote on pavements with <5% cover of paloverde/ironwood	1,188	5.4
Areas impacted by human activity	43	0.2
Brittlebush/bursage/creosote/paloverde on mountain slopes >20%	916	4.2
Mesquite woodland	381	1.7
Wolfberry/ironwood-paloverde/catclaw/cheesebush formation on intermittently flooded extremely xeromorphic deciduous subdesert shrubland	236	1.1
Creosote-teddybear cholla/bursage on rolling hills	547	2.6

**Photograph 1. Creosote/mesquite floodplain (dominant vegetation type in the project area)**



Photograph 2. Wolfberry/ironwood-paloverde-smoketree/catclaw/cheesebush formation on intermittently flooded extremely xeromorphic deciduous subdesert shrubland in the project area



Photograph 3. Creosote on pavements with <5% cover of paloverde/ironwood



Photograph 4. Creosote-teddybear cholla/bursage on rolling hills in the project area

Special Status Vegetation

Special status plant species are subject to regulations under the authority of federal and state agencies. Special status species include those that are (1) listed by the USFWS as federally endangered, threatened, proposed, or candidate species under the Endangered Species Act of 1973 (ESA), Section 4, as amended; (2) listed as BLM sensitive species; or (3) protected under the Arizona Native Plant Law administered by the Arizona Department of Agriculture.

No plants protected under the ESA are known to occur on YPG or the project area. However, there are several species of vegetation present that are protected by the Arizona Native Plant Law. Of note, the saguaro cactus (*Carnegiea gigantea*) is a keystone species in the Sonoran Desert Ecosystem found on rocky or gravelly well-drained soils of foothills, benches, and desert washes (NatureServe 2023), and is a Salvage Restricted plant under Arizona Native Plant Law (Arizona Department of Agriculture 2023).

3.2.2 Wildlife

Wildlife resources that have the potential to occur in the vicinity are predominantly associated with Sonoran Desert scrub habitats. Species occurrence, abundance, and distribution are strongly influenced by the presence of surface water, topography, and habitat types that are dominated by creosote bush, paloverde in uplands, and ironwood in washes. Wildlife that might be present in the project area, based on observations within the adjacent YPG boundary, include desert bighorn sheep (*Ovis canadensis mexicana*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), kit fox (*Vulpes macrotis*), badger (*Taxidea taxus*), black-tailed jackrabbit (*Lepus californicus*), and desert cottontail (*Sylvilagus audubonii*), as well as many smaller mammal species such as California myotis (*Myotis californicus*), canyon bat (*Pipistrellus hesperus*), and various mice, wood rats, and ground squirrels. Couch's spadefoot (*Scaphiopus couchi*), red-spotted toad (*Anaxyrus punctatus*), western whiptail (*Aspidoscelis tigris*), and side-blotched lizard (*Uta stansburiana*) are also commonly seen throughout YPG.

Wildlife Movement Corridors

A migration corridor has been identified on lands administered by the BLM between the Chocolate Mountains and the Castle Dome Mountains near Stone Cabin (BLM 2008), and the withdrawal area is adjacent to the Trigo – Kofa mountains wildlife linkage (linkage #63; Nordhaugen et al. 2006). This land likely serves as important connectivity habitat for long-range species movements (Ingraldi and Cobbold 2022). Drainage channels that are lined with desert riparian vegetation may be used as corridors for wildlife movement because they offer more cover and forage than adjacent habitats. Mammals that move across the desert landscape in search of food and water, often following seasonal movement patterns, may use the corridors present in the project area to move from one area to another.

Fences, highways, utility lines, and other development can present barriers to wildlife movement and may contribute to habitat fragmentation and/or prevent animals from reaching important resources. The route between the Chocolate and Castle Dome mountains has been cut by Highway 95, a 161-kilovolt (kV) transmission line, and other developments. Movement between the two mountain ranges still occurs; however, it is unknown to what extent normal movements have been impacted (BLM 2008).

Wildlife Habitat Area

The land requested for withdrawal is located within the Desert Mountains Wildlife Habitat Area (WHA) under the RMP. The Desert Mountains provide important habitat for desert bighorn sheep, desert tortoise, and other wildlife species that depend on the habitat found in the higher elevation mountain ranges (BLM 2008). The purpose of management of the WHA is maintenance of well-distributed habitats and connective corridors to support self-sustaining populations of native wildlife species (e.g., desert tortoise and bighorn sheep) (BLM 2010). Specific management actions identified in the RMP for this WHA include road restrictions and certain leasing and permitting limitations.

Special Status Wildlife

Special status wildlife species are subject to regulations under the authority of federal and state agencies. Special status species include those that are (1) listed by the USFWS as federally endangered, threatened, proposed, or candidate species under the ESA, Section 4, as amended; (2) listed by the AZGFD as Species of Greatest Conservation Need (SGCN) Tier 1A and 1B; or (3) listed as BLM Sensitive Species.

The AZGFD completed an *Assessment of Vertebrate Tier 1A and 1B Species presence and Vegetation Classification of the Requested Highway 95 BLM Withdrawal for the U.S. Army Yuma Proving Ground* in September 2022 (Ingraldi and Cobbold 2022). The purpose of the report was to assess and identify special status species with the potential to occur within or adjacent to the project area. The potential presence of each species was determined by the ecology and habitat requirements of each special status species. In the following sections, federally listed ESA species are discussed first, followed by other special status species designations.

USFWS Federally Listed Wildlife

A list of federally listed species with the potential to occur in the project area was derived from the USFWS Information for Planning and Conservation (IPaC) system, Project Code: 2023-0019820 (USFWS 2023). These species are described in Table 3-3, with more information provided below for those identified as having suitable habitat within or adjacent to the project area.

Table 3-3. Summary of Federally Listed (ESA) Species Identified by the IPaC System and their Potential to Occur within the Withdrawal Area

Species Name	Status	Habitat Requirements	Potential to Occur
<i>Mammal Species</i>			
Sonoran Pronghorn <i>Antilocapra americana sonoriensis</i>	Exp	Found exclusively in the Lower Colorado River Valley and the Arizona Upland subdivisions of the Sonoran Desert scrub Biome and currently occur in southwestern Arizona and northwestern Sonora, Mexico.	Suitable habitat is present within and adjacent to the project area and pronghorn have been observed in the project area.
<i>Bird Species</i>			
Yellow-billed Cuckoo <i>Coccyzus americanus</i>	T	Riparian cottonwood-willow galleries and to a lesser extent willows or isolated cottonwoods with tall mesquites.	No suitable habitat within or adjacent to the project area.
Yuma Ridgway's Rail <i>Rallus obsoletus yumanensis</i>	E	Associated with dense emergent riparian vegetation. Requires wet substrate (mudflat, sandbar) with dense herbaceous or woody vegetation for nesting and foraging. Fresh-water marshes dominated by cattail or bulrush are preferred habitat.	No suitable habitat within or adjacent to the project area.
<i>Reptiles and Amphibians</i>			
Northern Mexican Gartersnake <i>Thamnophis eques megalops</i>	T	Riparian obligate found in wetlands, stock tanks, riparian woodlands, and streamside gallery forests.	No suitable habitat within or adjacent to the project area.
Sonoran Desert Tortoise <i>Gopherus morafkai</i>	Former candidate. Feb. 2022 USFWS found listing not warranted	Most closely associated with the Arizona Upland and Lower Colorado River subdivisions of Sonoran Desert scrub and Mojave Desert-scrub vegetation types. They occur most commonly on rocky, steep slopes and bajadas, and in paloverde-mixed cacti associations.	Suitable habitat is present within and adjacent to the project area. Shell fragments have been found in the project area.
<i>Insects</i>			
Monarch Butterfly <i>Danaus plexippus</i>	C	Migratory species between Arizona and Mexico. Breeding habitat requires a diversity of blooming nectar resources, as well as milkweed embedded within the nectar habitat.	Potential habitat within or adjacent to the project area, particularly if milkweed (<i>Asclepias spp.</i>) is present.
* E = Federally listed as Endangered under the ESA; T = Federally listed as Threatened under the ESA; C= Federally listed as Candidate under the ESA; Exp = Federally listed as Experimental Population, Non-Essential.			

Previous consultation with the USFWS has occurred on multiple occasions to address potential project-related effects to ESA species associated with military testing and training activities within the current YPG boundary. The project area lands have not been previously withdrawn for military purposes and, as such, have not been the subject of impact analysis or ESA consultation with USFWS by the Army; however, they were subject to consultation by the BLM for any actions affecting listed species. The Army developed a BA to examine potential effects to ESA-listed species from the Proposed Action; the BA was provided to the USFWS to inform them about the requested withdrawal, although as an administrative function, the land withdrawal would not alter the existing land use and there would be no affect to listed species. The BA is contained in Appendix O. Biological Opinions have been issued for the past consultations related to projects on YPG, as well as management of these lands under the BLM's RMP.

Sonoran pronghorn: Sonoran pronghorn is a federally endangered subspecies that inhabits a variety of Sonoran Desert habitats. Pronghorn rely on detecting and fleeing from predators. As such, this species prefers flat to gently rolling terrain with open sightlines. Creosote bush habitats are frequented by pronghorn, although habitats with greater shade availability are necessary during the summer. Pronghorn are typically nomadic and require large expanses of contiguous habitat to survive.

In 2010, the USFWS designated the Sonoran pronghorn as a nonessential experimental population, as defined under Section 10(j) of the ESA, within a portion of their historic range. This area is located north of Interstate 8, south of Interstate 10, and east of State Route 85 in Arizona. In order to restore pronghorn to their historic breeding range, the USFWS, with the agency partner Recovery Team, has been releasing pronghorn from semi-captive breeding pens on Kofa National Wildlife Refuge (NWR) and Cabeza Prieta NWR into the region since 2013.

Sonoran pronghorn may roam freely following release from the captive breeding pen. There are no fences to hinder movement of Sonoran pronghorn between the Kofa NWR and BLM and YPG lands. As pronghorn recovery efforts are ongoing, their range continues to expand and abundance is expected to increase within the non-essential experimental population area.

The native habitat within the project area represents suitable habitat for Sonoran pronghorn. The project area is located within the La Posa Plain, which is a large, open expanse of creosote scrub intermixed with smaller mesquite bosques and xeric washes. Pronghorn have been observed in this area.

Pronghorn also occupy the Kofa NWR, east of the project area, and are frequently observed along Highway 95 in the vicinity of the project area. In recent years, there have been several pronghorn killed along this portion of Highway 95, and as a result, AZGFD periodically provides supplemental food and water to pronghorn east of the highway to prevent them from venturing onto the highway. With ongoing recovery efforts for Sonoran pronghorn, the population is continuing to increase and as such, it is likely that pronghorn will occupy these lands more frequently in the future.

Sonoran Desert tortoise: The Sonoran Desert tortoise was initially assessed as a candidate species; however, in February 2022, the USFWS found that listing was not warranted (87 FR 7077). The tortoise is managed under the Candidate Conservation Agreement for the Sonoran Desert Tortoise in Arizona, of which YPG is a signatory (AIDTT 2015). Sonoran Desert tortoises are most closely associated with the Arizona Upland and Lower Colorado River subdivisions of Sonoran Desert scrub and Mojave Desert scrub vegetation types. They occur most commonly on rocky, steep slopes and bajadas and in paloverde-mixed cacti associations. Zylstra and Steidl (2008) found that habitat selection by Sonoran Desert tortoises was most closely associated with topographic and geomorphologic influences rather than by vegetation type. Specifically, Zylstra and Steidl (2008) found that the likelihood of observing Sonoran Desert tortoises increased with increasing slope, and with a strong association to aspect (with east-facing slopes preferred over north-facing slopes). This species can be found in lowland intermountain desert valleys at lower densities (Edwards et al. 2004, Averill-Murray and Averill-Murray 2005, Grandmaison et al. 2010).

Historically, tortoise detections on YPG have been rare. The current distribution of the Sonoran Desert tortoise reaches its sparsest as it approaches the southwestern corner of the state. Most detections on YPG have occurred within the Dome Rock, Trigo, and Chocolate Mountain portions of the Cibola Region. Since 2016, YPG and AZGFD have engaged in a Sonoran Desert tortoise telemetry study of the population of tortoise occurring on YPG. Since its implementation in 2016, the telemetry study has detected and outfitted numerous Sonoran Desert tortoise with radio telemetry equipment to gain data and an understanding of the tortoise home range, daily movements, and condition (AZGFD 2020). YPG and AZGFD have established long-term monitoring plots for tortoise to identify population trends both locally and statewide.

The availability of shelter sites is one of the most critical components of desert tortoise habitat (Fritts and Jennings 1994; Averill-Murray et al. 2002; Riedle et al. 2008). Shelter sites include burrows constructed in loose soils, rock crevices, caliche caves in washes with incised banks, and woodrat middens. Previous habitat modeling on YPG suggested that the probability of desert tortoise occupancy on the installation was higher along the southern end of the Dome Mountains, the northern extent of the Trigo Mountains, and around the vicinity of Mohave Peak (Grandmaison 2012). This study identified soil types, specifically soils with well-defined horizons, as having a greater likelihood of supporting the presence of desert tortoises (Grandmaison 2012). The results of this study suggest a low likelihood of desert tortoise occupancy in the project area. However, suitable habitat is present and tortoise shell fragments have been found in the project area (Daniel Steward, YPG Wildlife Biologist, *pers. comm.* 2016). In addition, the project area is adjacent to a known wildlife linkage (Trigo – Kofa mountains linkage #63; Nordhaugen et al. 2006), and the project area functions as important connectivity habitat to facilitate long-range tortoise movements that therefore maintain gene flow among distinct desert tortoise metapopulations (Edwards et al. 2004).

Monarch butterfly: The Monarch butterfly is considered a candidate for listing under the ESA (USFWS 2021). During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepias* spp.). There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately 2 to 5 weeks; overwintering adults enter into suspended reproduction and live 6 to 9 months (USFWS 2021). In many regions where monarchs are present, they breed year-round. In temperate climates, individual monarchs undergo long-distance migration, and live for an extended period of time. In the fall, monarchs begin migrating to their respective overwintering sites, which can take over 2 months (USFWS 2021).

Little is known about the relative importance of Lower Sonoran Desert Scrub habitat for the Monarch butterfly. Milkweed (*Asclepias* spp.) are present in low density across this region of the desert, and it is possible that monarch can use these as host plants (likely in winter). Adult monarch may use a wide variety of flowering plants as nectar sources. Adult monarchs migrate through the local desert and surrounding regions in the fall. Some migrate over winter as well; however, they are not present in lower deserts during the summer (Morris et al. 2015).

Other Special Status Designations

The *Assessment of Vertebrate Tier 1A and 1B Species Presence and Vegetation Classification of the Requested Highway 95 BLM Withdrawal* report (Ingraldi and Cobbold 2022) assessed SGCN, classified as Tier 1A or 1B, as occurring within or having suitable habitats within or adjacent to the project area. Arizona SGCN are categorized into two tiers reflecting AZGFD's management commitments and priorities, as follows:

- Tier 1a: Scored “1” for vulnerability in at least one of eight categories and matches at least one of the following:

- Federally listed as endangered or threatened under the ESA.
 - Candidate species under ESA.
 - Specifically covered under a signed candidate conservation agreement or a signed candidate conservation agreement with assurances.
 - Recently removed from the ESA and currently requires post-delisting monitoring.
 - Closed season species (i.e., no take permitted), as identified in AZGFD Commission Orders 40, 41, 42, or 43.
- Tier 1b: Scored “1” for vulnerability in at least one of eight categories but match none of the above criteria.

There are four SGCN Tier 1a species and 26 species identified as SGCN Tier 1b species documented as potentially having suitable habitat within or adjacent to the project area based on the AZGFD report (Ingraldi and Cobbold 2022). These species, their general habitat requirements, and potential to occur within or adjacent to the project area based on geographical and natural history information are identified in Table 3-4. Also listed in the table are species designated as BLM sensitive, USFWS species of concern, USFWS birds of conservation concern, and species protected under the Migratory Bird Treaty Act of 1918 (MBTA).

Table 3-4. Special Status Species with the Potential to Occur within Habitat Types Present in the Project Area.

Species Common Name	Scientific Name	Status	Potential Habitat/ Occurrence (yes/no/probable)
<i>Amphibians</i>			
Sonoran Desert Toad	<i>Incilius alvarius</i>	SGCN 1b, FC	Yes
<i>Birds</i>			
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	SGCN 1a, BLMS	No
Desert Purple Martin	<i>Progne subis hesperia</i>	BLMS	No
Gilded Flicker	<i>Colaptes chrysoides</i>	SGCN 1b, MBTA BCC, BLMS	Yes
Le Conte's Thrasher	<i>Toxostoma lecontei</i>	SGCN 1b, MBTA BCC, BLMS	Yes
Abert's Towhee	<i>Melozone aberti</i>	SGCN 1b, MBTA, BCC	No
Arizona Bell's Vireo	<i>Vireo bellii arizonae</i>	SGCN 1b, MBTA	No
Gila Woodpecker	<i>Melanerpes uropygialis</i>	SGCN 1b, MBTA, BCC	Yes
Golden Eagle	<i>Aquila chrysaetos</i>	SGCN 1b, MBTA	Yes
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	SGCN 1b, MBTA, BCC, BLMS	Yes
Loggerhead Shrike	<i>Lanius ludovicianus</i>	SC, MBTA	Yes

Table 3-4. (continued).

Species Common Name	Scientific Name	Status	Potential Habitat/ Occurrence (yes/no/probable)
Mammals			
California Leaf-nosed Bat	<i>Macrotus californicus</i>	SGCN 1b, BLMS	Yes
Allen's (Mexican) big-eared Bat	<i>Idionycteris phyllotis</i>	BLMS	Probable
Arizona Myotis	<i>Myotis occultus</i>	SGCN 1b, BLMS	No
Big Free-tailed Bat	<i>Nyctinomops macrotis</i>	BLMS	Probable
Brazilian Free-tailed Bat	<i>Tadarida brasiliensis</i>	SGCN 1b	Probable
Cave Myotis	<i>Myotis velifer</i>	SGCN 1b, BLMS	Probable
Colorado River Cotton Rat	<i>Sigmodon arizonae plenus</i>	SGCN 1b	No
Fringed Myotis	<i>Myotis thysanodes</i>	BLMS	Probable
Greater Western Bonneted Bat	<i>Eumops perotis californicus</i>	SGCN 1b, BLMS	Probable
Harris' Antelope Squirrel	<i>Ammospermophilus harrisi</i>	SGCN 1b	Yes
Little Pocket Mouse	<i>Perognathus longimembris</i>	SGCN 1b	Yes
Mexican Desert Bighorn Sheep	<i>Ovis canadensis mexicana</i>	SGCN 1b	Yes
Pale Townsend's Big-eared Bat	<i>Corynorhinus townsendii pallescens</i>	SGCN 1b	Yes
Pocketed Free-tailed Bat	<i>Nyctinomops femorosaccus</i>	SGCN 1b	Yes
Sonoran Pronghorn	<i>Antilocapra americana sonoriensis</i>	Exp	Yes
Western Red Bat	<i>Lasiurus blossevillii</i>	SGCN 1b	No
Western Yellow Bat	<i>Lasiurus xanthinus</i>	SGCN 1b	No
Western small-footed myotis	<i>Myotis ciliolabrum</i>	BLMS	Probable
Yuma Myotis	<i>Myotis yumanensis</i>	SGCN 1b	Yes
Reptiles			
Gila Monster	<i>Heloderma suspectum</i>	SGCN 1a	Yes
Desert Horned Lizard	<i>Phrynosoma platyrhinos</i>	SGCN 1b	Yes
Flat-tailed horned lizard	<i>Phrynosoma mcallii</i>	BLMS	No
Rosy Boa	<i>Lichanura roseofusca</i>	SGCN 1b	Probable
Mohave Fringe-toed Lizard	<i>Uma scoparia</i>	SGCN 1b, BLMS	No
Sonoran Coralsnake	<i>Micruroides euryxanthus</i>	SGCN 1b	Yes
Sonoran Desert Tortoise	<i>Gopherus morafkai</i>	Former candidate. Feb. 2022 FWS found listing not warranted	Yes
Chuckwalla	<i>Sauromalus ater</i>	BLMS	Potential

Table 3-4. (continued).

Species Common Name	Scientific Name	Status	Potential Habitat/ Occurrence (yes/no/probable)
<i>Invertebrates</i>			
Cheese-weed Moth Lacewing	<i>Oliarces clara</i>	BLMS	Probable
MacNeill Sooty Wing Skipper	<i>Hesperopsis graciellae</i>	BLMS	Probable
BCC = USFWS Bird of Conservation Concern; BLMS = Arizona Bureau of Land Management Sensitive; FC = ESA candidate species; MBTA = Migratory Bird Treaty Act; SC = USFWS species of concern; SGCN 1A = Tier 1a species of greatest conservation needed; SGCN 1B = Tier 1b species of greatest conservation needed			

Table 3-4 identifies multiple Tier 1b species that could potentially occur in the project area based on the presence of suitable habitat. The Tier 1b bird species that have the potential to occur in the project area are commonly found in habitats associated with Sonoran Desert habitat, desert washes, saguaros, and desert flats with sparse growth of saltbush and on creosote bush flats. These habitats are used for both nesting and foraging activities. The bat species and mammal species also occur in Sonoran Desert habitat and would utilize the surrounding habitat for foraging. Many of the rodent species excavate and live in burrow systems that are commonly dug in loose or sandy soils that also create habitat for other species. Reptiles associated with the project area utilize desert washes, desert flats, and burrow systems excavated by other animals found within the project area for foraging and shelter.

Migratory Birds

Migratory birds are protected under the MBTA. This act prohibits taking (i.e., harming, harassing, or pursuing), killing, possessing, transporting, or importing migratory birds, their eggs, parts, and nests except when specifically authorized by the U.S. Department of the Interior. Species protected by the MBTA include most native, non-game species. Federal law prohibits the destruction of a nest that is occupied with eggs, nestlings, or young birds that are still dependent on the nest for survival. The USFWS also identifies migratory birds that require additional conservation as Birds of Conservation Concern (BCC).

Several species of migratory birds have the potential to use the project area. Use of the project area could include wintering, foraging, transit, and/or nesting. Migratory birds and their nests are federally protected under the MBTA. Native habitats within the project area offer potentially suitable nesting substrate for several species.

The Tier 1b bird species mentioned in Table 3-4 occur in Sonoran Desert habitats that are present in the project area. These habitats are commonly used for foraging and nesting by these and other migratory bird species. However, habitat may be limited due to the dispersed nature of shrub species within the project area. Gilded flicker and Le Conte's thrasher often use scrub habitat for nesting and forage in the surrounding environments. Gila woodpecker nests in cavities in saguaro cactus, paloverde trees, mesquite trees, and other larger trees that occur in Sonoran Desert habitats. Arizona Bell's vireo is often found using riparian corridors with dense understory around washes and stream channels for foraging and nesting habitat. This type of riparian habitat is extremely limited within the project area. An informal search for burrowing owls was conducted in the project area in March 2022 (Ingraldi and Cobbald 2022). No burrowing owls were observed; however, significant burrowing owl signs were observed in the form of whitewash and pellets.

Eagles are afforded additional protection under the Bald and Golden Eagle Protection Act of 1940. Southwestern bald eagles require large trees, snags, or cliffs near water for nesting, with abundant fish and waterfowl for prey. They winter along major rivers and reservoirs in areas where fish or carrion are available (Ehrlich et al. 1988; Udvardy and Farrand 1994). This habitat does not exist on the project area but is found nearby along the Colorado River. The southwestern bald eagle is occasionally observed on YPG. Golden eagles have been observed on YPG and appropriate nest structures have been found; however, no active nests have been detected (Sturla et al. 2014). Nesting habitat for this species does occur in the nearby mountainous areas of YPG, and the project area may provide hunting habitat for winter foraging or serve as a migratory movement corridor.

3.2.3 Environmental Consequences

Proposed Action

If the requested withdrawal is enacted by Congress, transfer of management of the withdrawn land would not result in any impacts to biological resources; that is, because the withdrawal would mean only that the Army, rather than the BLM is managing the land, there would be no physical impacts.

YPG would revise the INRMP to include the withdrawn land, and both vegetation and wildlife would be managed in accordance with this plan. Conservation measures from the current INRMP would be implemented on the withdrawn lands and would be applied to protect both vegetation and wildlife resources.

Future management under the INRMP could result in beneficial effects from implementation of the plan on the withdrawn lands. The withdrawal would reduce the potential for land-disturbing activities to occur in the project area. Because the withdrawal would serve as a safety buffer, there would be a reduction in the potential for direct biological impacts over current conditions through a reduction in public use and elimination of the potential for future grazing and mining-related development from possible future mining claims.

Loads landing within the project area would be the result of unintended failures of equipment and are expected to be rare; however, loads could damage vegetation on the ground depending on where they land. Some effects could also occur from recovery efforts. Off-road travel with heavy equipment could damage vegetation and potential wildlife habitat. These activities could also result in temporary disturbance to wildlife within or immediately adjacent to the project area. These effects would be minimal.

Vegetation

Military use has the potential for damage to or destruction of native vegetation. Since the withdrawn lands would be used as a safety buffer, there would be minimal intrusion for military purposes and consequently, ground disturbance in the project area is also anticipated to be minimal.

Recovery of any airdrop loads that inadvertently land within the SSZ encompassing the project area has the potential to affect vegetation. Loads landing within the project area would be the result of unintended failures of equipment and are expected to be rare; however, loads could damage vegetation on the ground depending on where they land. The anticipated ground access for military test activity would be for pickup of air delivery loads that land off course. Any recovery operations would use established roads, washes, and/or adjacent surfaces to the maximum extent possible. If off-road travel with heavy equipment were to occur for recovery operations, the duration would be very short (typically less than 1 day). These activities would result in minimal surface disturbance and minimal alteration of vegetation. Off-road excursions for any such operation would be minimized. Given the expected rare and sporadic use of vehicles for recovery and the expected limited area affected, impacts to vegetation would be negligible.

Disturbance and compaction of soils would occur in localized areas if recovery vehicles and equipment leave the established roads and traverse the desert pavement to pick up airdrop loads. Each airdrop retrieval would leave an impression in the soil surface. This could indirectly affect vegetation through compaction, alteration of drainages, and reduction in water infiltration and percolation capacities.

Native vegetation could also be indirectly affected by an increased potential for invasive plant species proliferation in disturbed areas, which can displace native species. The location of any potential impacts is unknown; unintended failures of air delivery loads that miss the intended drop zone would not likely be centralized in one location of the withdrawn lands but would land in unanticipated, scattered locations. In areas where military activities or public use does not occur, vegetation density and diversity would remain in its current condition.

Adverse impacts to vegetation as a result of implementation of the Proposed Action would be minimized with appropriate mitigation, as described in existing YPG environmental plans (including the INRMP). Through implementation of SOPs and BMPs, impacts to vegetation would be minimized. It is expected that the existing environmental programs at YPG would reduce the potential impacts of the Proposed Action on vegetation; any impacts would be localized and negligible or minor.

Wildlife

The withdrawal of the project area for use as a safety buffer for YPG would result in the Army, rather than the BLM managing the land; thus, there would be no direct impacts to wildlife or habitat associated with the transfer of management. The transfer of management of the additional lands associated with the withdrawal would not be expected to alter wildlife habitat from its current state.

Additionally, because these lands would be used as a safety buffer, there would be minimal intrusion for military testing purposes. The anticipated ground access for military test activity would be for pickup of air delivery loads that land off course. YPG would use established roads and trails within the project area to the extent practicable; however, some off-road travel may be required. Off-road travel with heavy equipment could damage vegetation and potential wildlife habitat. The duration of these activities would be short (typically less than 1 day) and would result in minimal surface disturbance and associated wildlife habitat alteration.

If dropped loads drift into the project area, it could result in damage to trees and/or shrubs that could reduce available habitat. Air drops that drift outside the existing drop zones could land in Tyson Wash or other smaller washes, resulting in damage to vegetation as recovery vehicles attempt to traverse the wash or travel through it. Damage could occur to vegetation that is used for nesting, including saguaro cactus, trees, and shrubs. Impact to these vegetation types could result in isolated instances of reproductive failure of nesting birds if impacts occur during the nesting season.

Use of the project area as a buffer zone for existing drop zones within the current YPG boundary could result in temporary disturbance to wildlife within or immediately adjacent to the project area. Noise from aircraft overflights and dropped loads would continue to have the potential to disturb wildlife present in the vicinity; these noises may startle wildlife and temporarily disrupt their behavior. Impacts to wildlife could include minor, short-term disruptions in normal behavior (i.e., feeding, breeding, or predation). Larger wildlife and mobile animals would flee the area when these activities occur and thus would avoid direct impacts. Smaller, less mobile species (e.g., lizards and snakes) may become injured or killed by recovery of dropped loads.

Some larger mammals, particularly mule deer, use the washes in the vicinity for movement corridors. These animals could be disturbed by the noise of moving vehicles during recovery operations and be temporarily displaced. Although this is unlikely because of the sporadic nature of any events.

There would not be an appreciable increase in human activity in the area; therefore, impacts from human presence and habitat disturbance would be short term and minor. No habitat necessary for all or part of the life cycle of any species would be lost as a result of the Proposed Action. With implementation of proposed conservation measures, impacts to wildlife would be short-term and minor during periodic activities.

Future management under the INRMP could have beneficial effects to wildlife and wildlife habitat because the Army, in coordination with AZGFD and USFWS, would implement actions to conserve natural resources on the withdrawn lands. YPG would authorize continued public use of these lands for hunting; however, other public uses (i.e., recreational use, including OHV use) would be restricted.

Special Status Wildlife

Potential impacts to special status wildlife would be similar to those described above for general wildlife species, with the potential to occur in the project area. No habitat necessary for all or part of the life cycle of any species would be lost as a result of the Proposed Action. Ecological processes would not be damaged to the extent that the ecosystem is no longer sustainable or biodiversity is impaired. There would be no extirpation of a regional or local species. Impacts from human presence and habitat disturbance would be negligible to minor because there would not be an appreciable increase in human activity in the area.

SOPs and BMPs applicable to future management of the withdrawn lands, incorporated from those identified in the INRMP as well as from other planning analysis or Section 7 consultations on YPG (BO 02EAAZ00-2014-F-0161), would be implemented as part of the Proposed Action. These include, but are not limited to:

- Implementation of the 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 AZGFD, as appropriate, for capture of sick or injured pronghorn, as well as recovery of dead individuals if necessary. Coordination would involve adherence to range safety and security procedures.
- Adherence to the terms of the Memorandum of Understanding between the Kofa NWR, Imperial NWR, BLM, 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.
- Collaboration with the Arizona Interagency Desert Tortoise Team in implementing the Candidate Conservation Agreement for Sonoran Desert tortoise.
- Conduct any tortoise relocations in accordance with the *Guidelines for Handling Desert Tortoises Encountered on Development Projects* (AZGFD 2014).
- 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.
- Notify USFWS and AGFD if dead or injured Sonoran pronghorn are observed on the installation. Coordinate with the Sonoran Pronghorn Recovery Team to provide access to the pronghorn carcass for investigation.

USFWS Federally Listed Wildlife

Sonoran pronghorn: Use of the project area by Sonoran pronghorn is anticipated to continue to be seasonal based on precipitation and forage availability. Sonoran pronghorn are expected to continue to occupy the habitat located to the east of the project area where water and food are more readily available. The use of the project area as a safety buffer for testing and training on existing YPG drop zones would have no effect on pronghorn within the Kofa NWR. Should the withdrawal be enacted, then YPG would include the withdrawn land in the INRMP and would implement actions to protect Sonoran pronghorn.

The project area is located within the Non-Essential, Experimental Population (NEP) for Sonoran Pronghorn (76 FR 25593). In accordance with the ESA, Section 10(j), for the purposes of Section 7 consultation, Sonoran pronghorn are treated as Proposed or as a Threatened Species when the NEP is located within a NWR or unit of the National Park Service. Conference between the USFWS and the action agency is only required for projects that may jeopardize their continued existence. Because the NEP is, by definition, not essential to the continued existence of the species, the effects of proposed actions on the NEP would generally not rise to the level of jeopardy. As a result, a formal conference is not required.

The Proposed Action would not present any impacts to pronghorn within the NEP area (including on Kofa NWR), however, future management of those lands by YPG could. Since these lands would be used as a safety buffer, there would be minimal intrusion for military testing purposes. The anticipated ground access for military test activity would be for pickup of air delivery loads that land off course. This may result in off-road travel with heavy equipment (tracked or wheeled), but the duration would be very short, typically less than one day. These activities would not result in any alteration of habitat and only minimal surface disturbance. YPG would authorize continued public use of these lands for hunting. Other public uses, such as recreational OHV use, would be restricted. All future actions on these lands would be subject to Section 7 consultation, as appropriate.

YPG would include the additional 22,000 acres in the INRMP. As such, YPG in coordination with AZGFD and USFWS, would implement actions to conserve natural resources on these lands including management for special status species.

Impacts from human presence and habitat disturbance would be insignificant because there would not be an appreciable increase in human activity in the area. Future management under the INRMP could have beneficial effects from implementation of the plan on the requested withdrawal area.

Sonoran Desert tortoise: There is a low likelihood of Sonoran Desert tortoise occupancy in the project area. However, because tortoise shell fragments have been found (Steward 2016) and the project area represents important connectivity habitat (Nordhaugen et al. 2006), there is the potential for impacts from the Proposed Action. Effects on tortoise include the potential for individuals or their burrows to be impacted by dropped loads that miss the drop zone and vehicle use during recovery operations.

Should the withdrawal be enacted, YPG would include the withdrawn land in the INRMP and management for special status species (e.g., Sonoran Desert tortoise) would be implemented in coordination with AZGFD and USFWS. Future management under the YPG INRMP could have beneficial effects from implementation of the plan on the requested withdrawal area. Additionally, SOPs and BMPs, identified in the INRMP for protection of tortoise, would be implemented on the withdrawn lands. With the continuance of these conservation measures and the low likelihood of tortoise in the area, direct effects on Sonoran Desert tortoise would be negligible or minor.

Monarch butterfly: Because the Monarch butterfly migrates between Arizona and Mexico, there is the potential for it to occur in the vicinity of the project area in areas associated with milkweed (Morris et al. 2015). Although milkweed is not known to occur, there is a possibility for it to be present in the project area. Impacts to Monarch butterfly would be in the form of destruction of host plants, nectar sources, or individual butterflies. Because these lands would be used as a safety buffer, there would be minimal intrusion for military testing purposes. Impacts from habitat disturbance would be negligible for this species because there would not be an appreciable increase in human activity and any disturbance from recovery operations would occur in small defined areas, if at all; this would be insignificant in relationship to the vast unaltered surrounding desert landscape. Future management of the lands by YPG could conserve natural resources on these lands through exclusion of activities (i.e., mining or grazing) that could indirectly improve Monarch butterfly habitat.

Other Special Status Designations

As noted in Table 3-4, there are numerous other special status species that are known or have the potential to occur in the project area. Use of these lands as a safety buffer would result in minimal intrusion for military testing purposes. The anticipated ground access for military test activity would be for pickup of air delivery loads that land off course. This may result in off-road travel with heavy equipment that could damage vegetation and potential habitat for special status species, including burrow and foraging habitat for species such as Harris' Antelope Squirrel or Little Pocket Mouse. The duration of these activities would be short (typically less than 1 day) and would result in minimal surface disturbance and associated wildlife habitat alteration.

If dropped loads drift into the project area, it could result in damage to trees and/or shrubs thereby reducing available habitat. Air drops that drift outside the existing drop zones could land in Tyson Wash or other smaller washes, resulting in damage to vegetation as recovery vehicles attempt to traverse the wash or travel through it. Impacts to these vegetation types could adversely affect special status birds (e.g., Gilded Flicker or Le Conte's Thrasher) or bat or myotis species (e.g., Pale Townsend's Big-eared Bat or California Leaf-nosed Bat) if these species are present during activities.

Use of the project area as a buffer zone for existing drop zones within the current YPG boundary could result in temporary disturbance to wildlife within or immediately adjacent to the project area. Noise from aircraft overflights is ongoing and would continue to have the potential to disturb wildlife present in the vicinity; these noises may startle wildlife and temporarily disrupt their behavior. Impacts to wildlife could include minor, short-term disruptions in normal behavior (i.e., feeding, breeding, or predation). Larger wildlife and mobile animals would flee the area when these activities occur and thus, would avoid direct impacts. Smaller, less mobile species (e.g., desert horned lizard, rosy boa, Sonoran coral snake, and banded gila monster) may become injured or killed by recovery of errant loads.

Larger mammals that use the washes in the vicinity for migratory corridors could be disturbed by the noise of moving vehicles during recovery operations and be temporarily displaced; although it is unlikely because of the sporadic nature of any events.

Impacts from human presence and habitat disturbance would be minor because there would not be an appreciable increase in human activity in the area. Any long-term impacts to wildlife would be isolated, and there is ample similar habitat surrounding the project area that could be used by displaced wildlife. No habitat necessary for all or part of the life cycle of any species would be lost as a result of the Proposed Action. With implementation of SOPs and measures identified in the INRMP, impacts to special status wildlife would be short-term and minor during periodic activities.

Future management under the INRMP could have beneficial effects to special status wildlife and their habitat because the Army, in coordination with AZGFD and USFWS, would implement actions to conserve natural resources on the withdrawn lands. YPG would authorize continued public use of these lands for hunting; however, other public uses (e.g., recreational use, including OHV use) would be restricted.

Migratory birds: Under the Proposed Action, migratory birds protected under the MBTA, including those that have other special designations, would be managed as recommended in the INRMP. Impacts to these species would be similar to other species discussed above, and they would continue to use the limited habitat in the project area. A minor amount of habitat used for foraging by migratory birds would have the potential to be altered by errant airdrop recovery operations. Impacts to shrubs and trees could impact nesting individuals; however, the likelihood of this type of impact would be unpredictable and limited. SOPs and BMPs would be implemented, where applicable, to protect migratory bird habitat and reduce impacts to nests and individuals. The reduction in human disturbance related to restricted public use could result in a beneficial impact to migratory birds.

Cumulative Effects

The geographic extent of the cumulative effects analysis area for vegetation and wildlife is the project area and the 0.5-mile buffer surrounding the withdrawal. For all land withdrawn, a beneficial impact to vegetation and wildlife (including special status species) could occur because these lands would not be available for mineral entry related to potential future mining claims, dispersed recreation (e.g., OHV use), and other activities. Projects or actions within the surrounding BLM land or Highway 95 ROW or maintenance of existing ROWs could cause temporary disturbance if equipment and/or people are in the area; however, long-term impacts to biological resources would not be expected. Future airdrop recovery operations have the potential to disturb habitat and wildlife temporarily in limited areas; the amount of disturbance would be negligible relative to the amount of habitat available on surrounding YPG and BLM lands. No significant incremental impacts to wildlife, including special status species, would be anticipated. Additionally, other activities that could cause incremental impacts to vegetation and habitat loss would not be occurring. Therefore, the potential for cumulative effects would be negligible.

Ground disturbed by recovery operations could provide opportunities for the spread of invasive species. The amount of ground disturbance expected to occur from recovery operations under the Proposed Action is anticipated to be less than that occurring from other existing activities; therefore, the decrease in ground disturbance overall related to the elimination of other activities could reduce potential invasive species introduction and spread. In addition, BMPs would be implemented associated with recovery operations to minimize potential impacts. Therefore, cumulative effects would be negligible.

Adding the project area to YPG would have the overall cumulative effect of extending the protection and conservation of biological resources to the withdrawn land under the management of the INRMP. The surrounding BLM land would also continue to provide additional largely undeveloped, natural desert land that supports biological resources. Overall, the Proposed Action, in combination with ongoing and future actions in the cumulative effects analysis area, is not expected to significantly affect biological resources.

Alternative 1-Withdrawal of Shorter Duration, Such as 25 Years

Under Alternative 1, Congress would withdraw and reserve for Army use the same area, with the same boundary and land management provisions as the Proposed Action; however, the duration of the Highway 95 withdrawal would be limited to a shorter period (i.e., 25 years) rather than being of indefinite duration. During this time, the impacts to vegetation and wildlife and wildlife habitat would be the same as described above for the Proposed Action. The Army would have the option to request an extension of the land withdrawal and reservation should there be a continuing military need for the land beyond the

expiration date of the initial withdrawal term. If the request for a withdrawal extension is not approved, the land would be returned to the Secretary of the Interior and the BLM would be responsible for management of the biological resources in accordance with FLPMA and the RMP (BLM 2010).

No Action Alternative

Under the No Action Alternative, Congress would not enact legislation to withdraw and reserve the land, as requested; the land would remain BLM-managed public land. The BLM Yuma Field Office would retain management responsibility for biological resources on the 22,000 acres of public lands. The BLM public lands would continue to be managed pursuant to the FLPMA and the RMP (BLM 2010), and other applicable laws and regulations. Impacts to vegetation, wildlife, and wildlife habitat would continue from public uses of the land, including recreation uses (i.e., OHV use). As these lands are near the boundary of YPG, it is still possible that parachute loads can inadvertently drift off YPG lands. In the event this happens, the impacts would be similar to those described above. The difference being that YPG would follow BLM guidance and procedures for removing any item that falls on public land.

3.3 Cultural Resources

This section summarizes existing conditions and applicable policies relevant to the LEIS. Cultural resources and cultural history contexts reflect a broad area; however, the region of influence for this cultural analysis is limited to the project area.

Cultural resources are defined as prehistoric or historical period remains or indicators of past human activities. Indicators may include sites, structures, landscapes, or objects of importance to a culture or community. The framework for evaluation of cultural resources for National Register of Historic Places (NRHP) significance is provided in the NHPA of 1966, as amended (P.L. 89-665; as amended by Public Law 113-287, 54 U.S.C. 300101 et seq.). Cultural resources that demonstrate significance are designated as historic properties. In order to minimize potential adverse effects, historic properties must be considered during project planning. The NHPA states that an “adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register.” Within the current YPG boundaries, the Army treats cultural resources that have not been previously evaluated for NRHP eligibility as eligible for the NRHP for planning purposes. Additional classifications of cultural resources include Sacred Sites and Traditional Cultural Properties (TCPs).

The term “traditional cultural property” is synonymous with the term “properties of traditional religious and cultural importance,” referred to in the NHPA (Section 101(d)(6)(A) and (B)) and implementing regulations (cited in 36 CFR 800.2(c)(2)(ii)). TCPs are properties eligible for inclusion in the NRHP because of “association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community” (Parker and King 1992). These properties are “important to modern-day living communities for sustaining a shared cultural legacy” (BLM n.d.). Unlike other types of cultural resources, TCPs may be intangible and can represent areas of cultural importance to specific contemporary groups and are important in maintaining traditional values, however, Section 106 requires review of effects on tangible cultural resources (Parker and King 1992). TCPs may include sacred sites as well as other traditional use areas.

Sacred sites are not specifically defined within the framework of the NHPA but are the subject of EO 13007, *Indian Sacred Sites*, which defines a “sacred site” as “any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site.” The EO states that, to the extent practicable, the land manager should accommodate access to and ceremonial use of Indian Sacred Sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites.

According to the RMP, places of traditional cultural importance provide a sense of spiritual and social continuity to Native Americans and other cultural groups (BLM 2010). They may have religious significance, be used for hunting or gathering plants for food or medicinal use, or to observe traditional ceremonial activities. The existence and locations of traditional cultural importance are typically identified through consultation with members of the groups who ascribe value to those places.

At YPG, historic properties, cultural resources not previously evaluated for NRHP eligibility, TCPs, and Sacred Sites are managed under the stewardship of the Installation Management Command (IMCOM) and the YPG Garrison Manager, who are responsible for environmental protection and enhancement, which includes the management of cultural resources properties. AR 200-1, *Environmental Protection and Enhancement*, provides Army policy for cultural resources management, and DoDI 4715.16, *Cultural Resources Management*, provides guidance for implementation of the policy requirements. IMCOM directs and assists YPG in the implementation of installation cultural resources programs consistent with AR 200-1. The Garrison Manager is directly responsible for establishing an installation cultural resources management program through an ICRMP that integrates cultural resources management within the process of achieving daily mission objectives.

Management of cultural resources complies with the provisions and requirements outlined in the ICRMP, which includes numerous federal laws, regulations, Executive Memoranda and Orders, and DoD requirements (e.g., NHPA, NEPA, Archaeological Resources Protection Act, and Native American Graves Protection and Repatriation Act). Accompanying regulations (i.e., AR 200-1) prescribe management responsibilities and standards of treatment for historic properties. Summaries of these regulations are provided in the ICRMP along with a series of policies and SOPs that enable YPG to meet its legal responsibilities for the management of YPG's cultural resources. The SOPs in Appendix M of the ICRMP provide guidance concerning coordination procedures that provide for the integration of cultural resource management, along with the missions of natural resource management, Integrated Training Area Management, master planning, and mission-related test and training activities.

YPG currently operates under a Programmatic Agreement (PA) among YPG, the Arizona SHPO, and the Advisory Council on Historic Preservation (ACHP) regarding the operations, maintenance, and development of YPG (2014). YPG consulted with federally recognized Indian Tribes who attach traditional, religious, and/or ceremonial significance to YPG lands or cultural resources therein that may be affected by the undertakings and invited them to sign the PA as concurring parties. The BLM and the Western Area Power Administration are also concurring parties. The PA outlines the responsible parties and their duties related to potential undertakings at YPG and the Section 106 review process. Information on the present state of knowledge concerning historic properties, the status of archaeological surveys, areas exempted from survey, activities that are exempt from the Section 106 review process, and SOPs for inadvertent discoveries are all included in the PA. If the requested withdrawal is approved by Congress, compliance with Section 106 for Army use of these newly withdrawn lands would be achieved under the current PA, a subsequent program alternative, or the process identified in 36 CFR 800.3–800.6.

3.3.1 Cultural History

The project area has been occupied by humans from the Pre-Paleoindian period through the present day. The prehistoric period is characterized by the following: San Dieguito Complex (9500–4000 BC), Early Archaic (8500–5000 BC), Middle Archaic (5000–1500 BC), Archaic Period (8500 BC–AD 700/800), Late Archaic (1500 BC–AD 700/800), Ceramic Period (AD 700–1850), Patayan I (AD 700–1000), Patayan II (AD 1000–1500), and Patayan III (AD 1500–1850). The historic period is broken down into three time periods: Spanish Entrada (A.D. 1540-1821), Mining (1849-1942), and Military Era (1942-present). The ICRMP and the Environmental Assessment for the Implementation of the 2017-2021 ICRMP (Versar 2016; YPG 2016) provide baseline information for the area, including a summary of these periods.

Affiliated Tribes

Archaeological evidence indicates the YPG area was occupied for the last 12,000 years by mostly small nomadic groups of native peoples traveling through the area (YPG 2016). Evidence suggests that much of that occupation was sporadic and ephemeral. Historic occupation of YPG was also sporadic until the early 1900s. Tribal groups affiliated with this area are listed below:

- Ak-Chin Indian Community
- Chemehuevi Indian Tribe
- Cocopah Indian Tribe
- Colorado River Indian Tribes
- Fort McDowell Yavapai Nation
- Fort Mojave Indian Tribe
- Fort Yuma Quechan Indian Tribe
- Gila River Indian Community
- Hopi Tribe
- Mescalero Apache Tribe
- Moapa Band of Paiutes
- Pueblo of Zuni
- Salt River Pima-Maricopa Indian Community
- San Carlos Apache Tribe
- Tohono O'odham Nation
- Yavapai-Apache Nation
- Yavapai-Prescott Indian Tribe

Tribal Consultation

The ICRMP contains a complete list of laws and regulations applicable to cultural resources protection. YPG implemented a Native American Consultation Plan in 2001. The ICRMP contains an outline of Tribal consultation protocols for activities on YPG and provides updates to the Consultation Plan, as needed. In addition, YPG follows DoD and Department of the Army (DA) regulations and instructions regarding Tribal consultation and guidance promulgated by the ACHP and the Arizona SHPO.

Tribal Concerns

Ongoing consultation with affiliated Tribal groups has identified that in general, both cultural and natural resources are of concern to affiliated Tribes.

Access to places of significance has been identified as important to some of the affiliated Tribes. In addition to EO 13007, *Indian Sacred Sites*, the American Indian Religious Freedom Act of 1978 (42 U.S.C. 1966) also provides guidance on Tribal access to sacred sites. The BLM provides for use of and access to sacred sites and other places of traditional cultural importance by Native American Tribes when such places are identified through government-to-government consultation (BLM 2010). If the

requested withdrawal is enacted by Congress, YPG would incorporate the project area within YPG's current Tribal access policy. Areas of the installation can be visited by request to the Cultural Resources Manager. Although access to some areas is restricted due to operational and hazardous conditions, the Cultural Resources Manager would facilitate, and schedule requested access to restricted access areas when it is safe to do so.

3.3.2 Environmental Consequences

Proposed Action

If the requested withdrawal is enacted by Congress, transfer of management of the withdrawn land would not result in an "alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for" the NRHP (36 CFR 800.16). Because the transfer of management would mean only that the Army, rather than the BLM is managing the land, there would be no potential for effects. Under the Proposed Action, the project area would remain in federal ownership and any cultural resources that may be present would continue to be subject to the same protections and requirements afforded under the NHPA and other federal cultural resource protection laws, but the Army would be responsible for their protection and management. YPG would comply with legislation codified in the numerous federal laws, regulations, Executive Memoranda and Orders, as well as Army-specific cultural resources management guidelines identified in the ICRMP.

Because there are no specific actions proposed on the land and specific locations of any impacts cannot be known, effects to cultural resources from use of the project area as a safety buffer are discussed in a general sense. Use of the project area as a safety buffer could result in ground disturbance from the direct impact of the cargo and/or during recovery by vehicles. Recovery of any airdrop loads that inadvertently land within the SSZ encompassing the project area has the potential to affect cultural resources. Loads landing within the project area would be the result of unintended failures of equipment and are expected to be rare. Any recovery operations would use established roads, washes, and adjacent surfaces to the maximum extent possible. Off-road excursions for any such operation would be minimized.

Military personnel accessing the project area would follow SOPs determined through Section 106 consultation with SHPO and Tribal entities or other procedures mandated by the ICRMP. SOPs and BMPs from the ICRMP and PA would be followed to minimize impacts to cultural resources. If an inadvertent discovery is made, personnel would implement the provisions identified in the ICRMP. It is expected that the implementation of these measures associated with the existing cultural resource management programs at YPG would reduce the potential impacts of the proposed action on cultural resources.

The project area would be added to the PA and to the ICRMP to ensure protections. Protection of cultural resources within the project area offered by land access control would be beneficial in nature for an indefinite period. The withdrawal would have a minor beneficial impact on preservation of cultural resources by preventing unauthorized access and recreational use and precluding any possibility of future mining claims and associated mining-related activities that could impact cultural resources.

Ongoing consultation with affiliated Tribal groups would continue as described in the PA and ICRMP. Affiliated Tribes (identified in Section 3.3.1), along with the Arizona SHPO and the ACHP, were invited to the YPG Group Annual Tribal Meetings on May 4, 2022, and February 13, 2023, where a description of the Highway 95 Withdrawal project was provided. The Fort Yuma Quechan Indian Tribe and Gila River Indian Community attended the 2022 meeting, and the Fort Yuma Quechan Indian Tribe, Gila River Indian Community, and Salt River Pima-Maricopa Indian Community attended the 2023 meeting. Additionally, YPG sent letters on April 7, 2022, notifying Tribes of the requested withdrawal and public

meetings for the project. If the withdrawal request is enacted by Congress, established government-to-government consultation with affiliated Tribes would continue and would include the additional YPG lands of the project area. The DoD would continue to regularly consult with affiliated Tribal governments regarding undertakings that have the potential to affect cultural resources and would continue to maintain and strengthen established Tribal relationships.

Cumulative Effects

Ground-disturbing activities have had and would continue to have the potential for adverse impacts to cultural resources in the project area and the surrounding lands. Any future actions in the project area or the surrounding 0.5-mile buffer would be subject to federal cultural resources regulations. All federal agencies are subject to the requirements of the NHPA; therefore, any future actions would be required to comply with this act for both known resources and previously unknown resources. Under these regulations, effects to cultural resources would be assessed and potential impacts would be subject to mitigation. This would protect cultural resources, reducing the potential for cumulative effects on cultural resources. The Proposed Action would have no direct effect on historic properties in the project area and indirect effects would be minor; therefore, the potential for cumulative impacts is minimal.

Alternative 1-Withdrawal of Shorter Duration, Such as 25 Years

Impacts to cultural resources under Alternative 1 would be the same as under the Proposed Action for the duration of the withdrawal. After the withdrawal term expires, the management of cultural resources would return to the BLM unless another withdrawal term is approved. The longer the withdrawal term, the greater the decrease in potential adverse impacts to cultural resources from the reduction in public access to the area.

No Action Alternative

If the No Action Alternative is selected, cultural resources management would continue to be the responsibility of the BLM, who would manage and protect cultural resources under the requirements outlined in numerous federal laws, regulations, Executive Memoranda and Orders, and BLM-specific management guidelines.

3.4 Existing Land Use

To assist with both the withdrawal application processing and the analysis for this LEIS, the USACE prepared a detailed land use report (USACE 2023) that is incorporated into this LEIS by reference. The project area land use information below is based, in part, on this detailed report.

The project area is comprised of approximately 22,000 acres of federal public land administered by the BLM. Within the requested 22,000 acres, the State of Arizona owns 800 acres of the subsurface estate, and these subsurface acres are excepted from the withdrawal request. BLM manages this public land for multiple use and sustained yield in accordance with the FLPMA. The RMP (BLM 2010) provides management guidance and direction for the public lands in the project area. The RMP addresses numerous land uses, including, but not limited to, natural and cultural resource management, recreation, OHV travel on designated routes, mineral and energy development, livestock grazing, wild horses and burros, and protection of wilderness characteristics.

The project area is located approximately 50 miles north of the City of Yuma. The majority of the project area is within Yuma County, with a small portion of the northern end crossing into La Paz County. The land is west of Highway 95 between approximately mile marker 74 and mile marker 91. It lies east of the YPG Cibola Range and west of the Kofa NWR (see Figures 1-1 and 1-3). Currently, the YPG installation is separated from Highway 95 by this narrow strip of BLM land.

The project area is undeveloped desert land with very little historical or current land uses, and there are no structures, buildings, or residences present. There are several long-abandoned earthen berm catchment basins that are visible on aerial photography. These catchment basins are assumed to be potential water catchment areas for legacy livestock operations (USACE 2023). Based on a review of the RMP and active land use authorizations, the primary type of land uses within the project area include dispersed recreation, to include hunting and occasional OHV use, public and private utilities, and the County of Yuma maintained Cibola Lake Road. A known historical use of the property was as a World-War II era Army maneuver training area. As a result of munitions debris identified from this historic military training use, a portion of the southwesterly project area has been classified as contaminated by BLM and is also included within a USACE Military Munitions Response (MMR) area as part of a recognized FUDS (USACE 2010, as amended).

3.4.1 Existing Land Use Authorizations

There are six authorized ROWs within the project area, which are identified in Table 3-5 and shown on Figure 3-2. Three of these ROWs have been issued to the Army in support of the existing testing operations at the YPG Cibola Range, which is located westerly of the project area. The remaining three ROWs consist of two Arizona Public Service (APS) electrical distribution lines and a county-maintained road. These ROWs will be discussed in the sections below. If enacted by Congress, the withdrawal and reservation would be subject to valid existing rights and therefore, any current authorized ROW would be allowed to continue.

Table 3-5. Rights-of-Way Within the Project Area.

ROW Grantee	Project Description	BLM Case
Army YPG	Road 89	AZA-32660
Army YPG	Road 89 12-kV distribution line	AZA-32871
Army Corps of Engineers (for YPG)	Cibola Lake Road 12-kV distribution line	AZA-29682
County of Yuma	Cibola Lake Road	AZA-3571420
Arizona Public Service	12-kV distribution parallel to Highway 95	AZAR-32619
Arizona Public Service	12-kV distribution line across Highway 95	AZA-38436

3.4.2 Utility Infrastructure

Utility infrastructure located within the project area consists of the four 12-kV electrical distribution lines identified in Table 3-5. Two of the 12-kV lines are owned by the Army and two are owned by the APS utility company. The two Army electrical distribution lines (AZA-32871 and AZA-29682) run east-west through the project area and parallel to Road 89 and Cibola Lake Road, serving YPG. One of the APS distribution lines (AZA-32619) is located along the easterly boundary of the project area, just west of and parallel to Highway 95. The second APS distribution line (AZA-38436) that is located within the project area for a few hundred linear feet, is easterly of and perpendicular to the larger APS line and exits the project area across Highway 95. There are no railroads, renewable energy facilities, telecommunication sites, electrical substations, water wells, or wastewater facilities located within the project area.

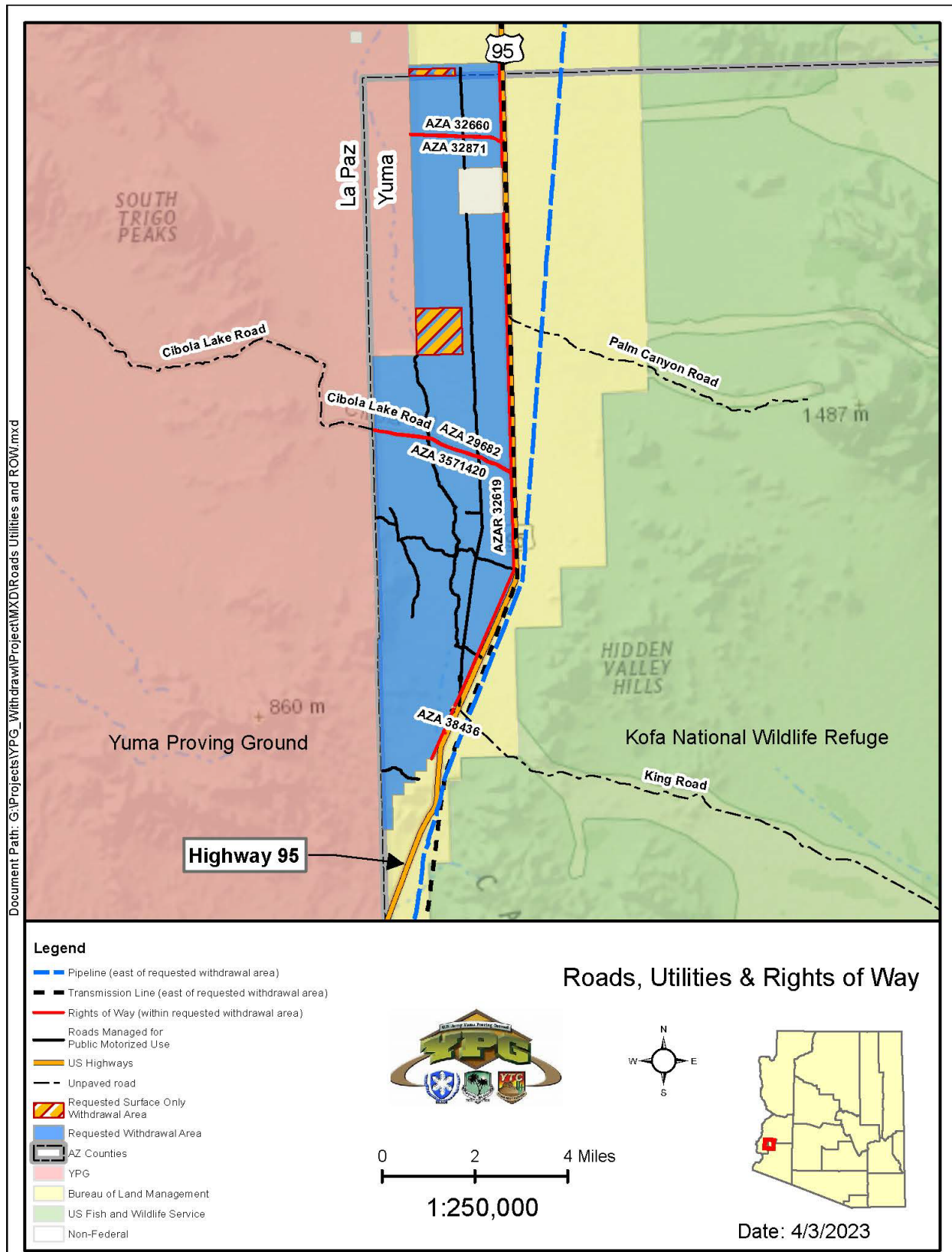


Figure 3-2. Existing Authorizations in the Requested Withdrawal Area.

All four of these 12-kV lines are at least partially located within the designated Parker-Blaisdell utility corridor (BLM 2010). This 1-mile-wide utility corridor runs parallel with and is centered along Highway 95 (Figure 3-3). A portion of the easterly side of the project area overlaps with the westerly half of this utility corridor. Because of the increased energy demand within the southwest region of the United States, the BLM Arizona has requested (see BLM letter provided as Appendix P) that any legislative proposal for the Army's YPG Highway 95 withdrawal specify that the BLM Arizona State Director may issue ROWs within the BLM-designated Parker-Blaisdell utility corridor for any critical regional-grid level utility infrastructure, to include above-ground transmission lines, subject to the following:

1. BLM Arizona, in consultation with the Army, will incorporate conditions in any authorization of utility use as much as practicable to minimize impacts to the Army's mission; and
2. The decision to authorize the installation and maintenance of such critical infrastructure within the Parker-Blaisdell utility corridor shall be reserved for the BLM Arizona State Director without the possibility for delegation.

At present, the BLM is unaware of any pending transmission line requests for this utility corridor.

3.4.3 Transportation Infrastructure

The major roadway near the project area is Highway 95, a two-lane paved, rural, principal arterial roadway that runs generally north-south between Interstate 8 to the south and Interstate 10 to the north. This road is the principal access route to YPG and the project area (USACE 2015). Due to the influx of a high seasonal visitor population, general traffic volume in the region including along Highway 95, is typically greater during the winter months (USACE 2015). The Highway 95 ROW is located outside of the project area and is also the primary easterly boundary of this requested withdrawal area.

Within the project area, an internal network of mostly dirt and unimproved roads, including BLM designated roads, provides access west of Highway 95 across the project area and to the Cibola Range. The BLM classifies public land as open, closed, or limited to designated routes in accordance with 43 CFR 8342.1, *Designation Criteria*. The La Posa Travel Management Plan establishes approximately 56 miles of designated routes within the project area that are available for OHV use (see Figure 3-4). There are a total of approximately 2,020 designated miles in the La Posa Travel Management Plan (BLM 2016b); the designated routes in the project area represent less than 3% of this total. A BLM designated dirt road – referred to as the Old Yuma Road on some maps – is a north-south dirt road that runs through the central portion of the project area. This road originates in the Town of Quartzsite to the north and eventually joins Highway 95 around mile marker 77. An additional dirt road (Road 89) is a BLM authorized road ROW (AZA-32660) issued to YPG. This road originates at mile marker 89 of Highway 95 and crosses the northern portion of the project area, providing access to the Cibola Range. Cibola Lake Road, a BLM authorized Yuma County road ROW (AZA-3571420), crosses the central portion of the project area. This county-maintained east-west gravel road originates at mile marker 82 of Highway 95 and provides access across the YPG Cibola Range to BLM managed lands and the Cibola NWR to the west of YPG.

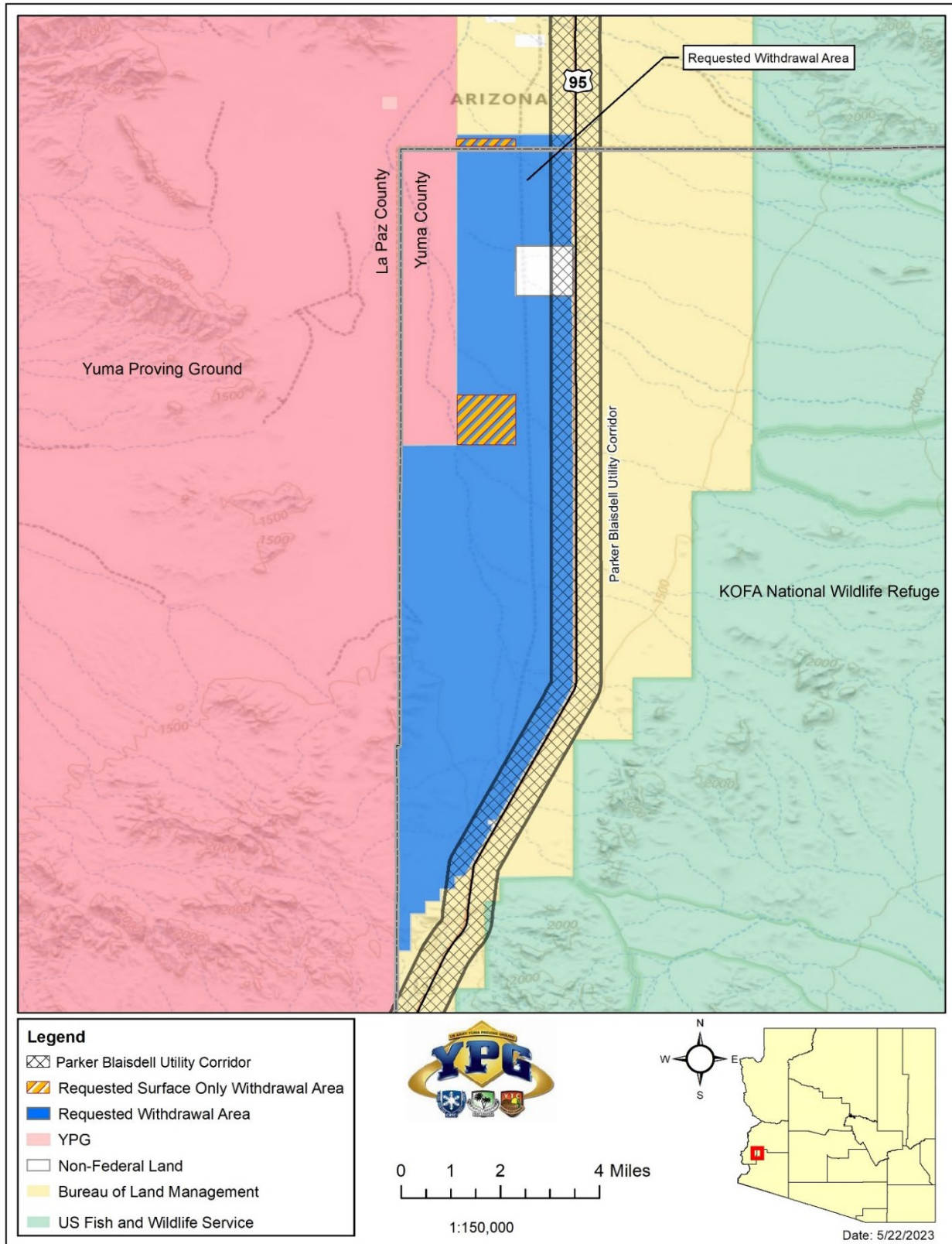


Figure 3-3. Location of Parker-Blaisdell Utility Corridor.

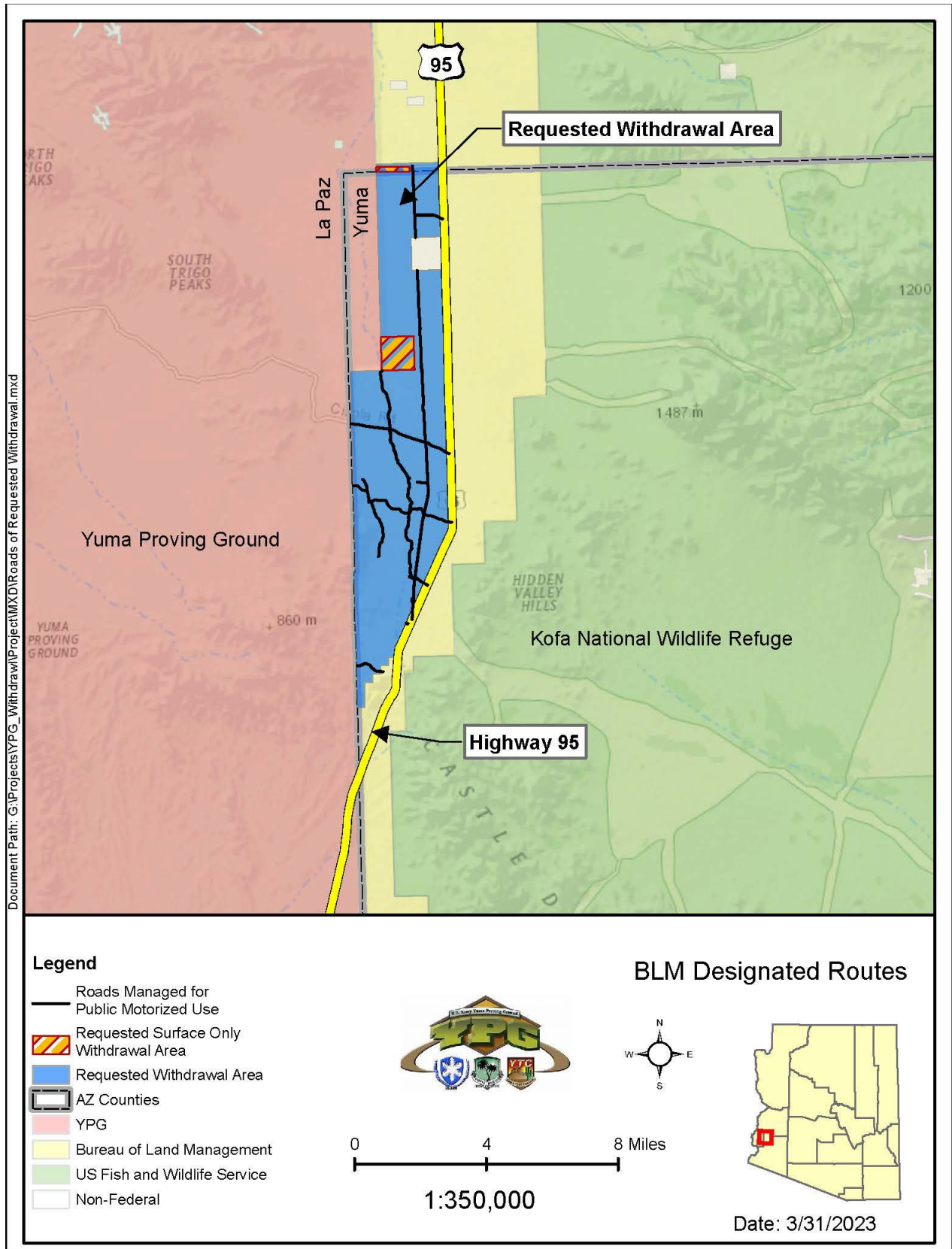


Figure 3-4. Authorized Routes in the Requested Withdrawal Area.

3.4.4 Perimeter Land Use

The project area is surrounded by public lands administered by the BLM and USFWS, as well as the current YPG area that is administered by the U.S. Army. A description of Regional Land Use and Setting for lands surrounding YPG, including lands that comprise the project area, is provided in the INRMP and is incorporated by reference (YPG 2023). The federally managed public lands surrounding the project area are comprised primarily of undeveloped open space managed for multiple uses or for congressionally designated resource management purposes, including recreation, wildlife management, and cultural resources among others (USACE 2015). Both the BLM and USFWS have processes in place to coordinate land use activities with YPG managers. YPG works cooperatively with these agencies, as well as AZGFD, to ensure effective management of natural resources.

The BLM is one of the largest jurisdictional entities in the vicinity of the project area, and the BLM-administered lands are managed by the BLM Yuma Field Office in accordance with the RMP (BLM 2010). Recreational opportunities on these public lands include camping, hiking, OHV riding, hunting, shooting, wildlife viewing, photography, mountain biking, horseback riding, and rockhounding.

The USFWS has jurisdiction over the Kofa NWR, which is located east of the project area, across Highway 95. The NWR is managed by USFWS in accordance with its *Kofa National Wildlife Refuge and Wilderness Interagency Management Plan* (USFWS 1996). The Kofa NWR offers hiking, camping, limited rockhounding, wildlife viewing, and hunting.

YPG's philosophy of land management can be framed within the contexts of ecosystem management and the Army's Sustainable Range Program. The guiding principle of these programs is that the military mission drives natural resources management. Because it is a desert test center, YPG must endeavor to conserve valuable natural resources. The Sustainable Range Program ensures a holistic approach for sustainable use of YPG lands as well as a consideration of the surrounding environment, compliance with federal environmental laws, and public concerns (YPG 2023).

3.4.5 Airspace

The airspace above the project area, as well as most of the adjacent lands (including YPG, Kofa NWR, and some of the surrounding BLM lands), is restricted for military operations (Figure 3-5). The airspace is not completely off-limits to private or commercial flights; however, flights are restricted to periods of non-use by YPG or other military users (USACE 2023). The airspace is scheduled by YPG through Marine Corps Air Station Yuma for the highest hazardous event per hour per day. When not scheduled, the airspace is returned to the Federal Aviation Administration and available to the public as National Airspace.

3.4.6 USACE Formerly Used Defense Site (FUDS)

The project area contains an approximately 2,000-acre USACE designated MMR area (Figure 3-6) within a FUDS site known as Laguna Maneuver Area No. 10, which was used from 1942 to 1944 to train troops and test equipment for fighting in a desert environment. Although the majority of this FUDS site has been closed out, the MMR site, known as the Stone Cabin Impact Area, has been identified through historical research and site visits as having potential explosive hazards (USACE 2010, as amended). The munitions known or suspected to have been used in the impact area include medium to large caliber munitions and mortars. The BLM has also classified this area as a UXO contaminated area (BLM 2010). Risk remains at the Stone Cabin Impact Area for munitions and explosives of concern. To date, USACE has not acquired funding to initiate any remedial actions at the Stone Cabin Impact Area. The site is on the USACE's list of Interim Risk Management properties and will remain on the list until funding becomes available to address the debris and the debris is removed.

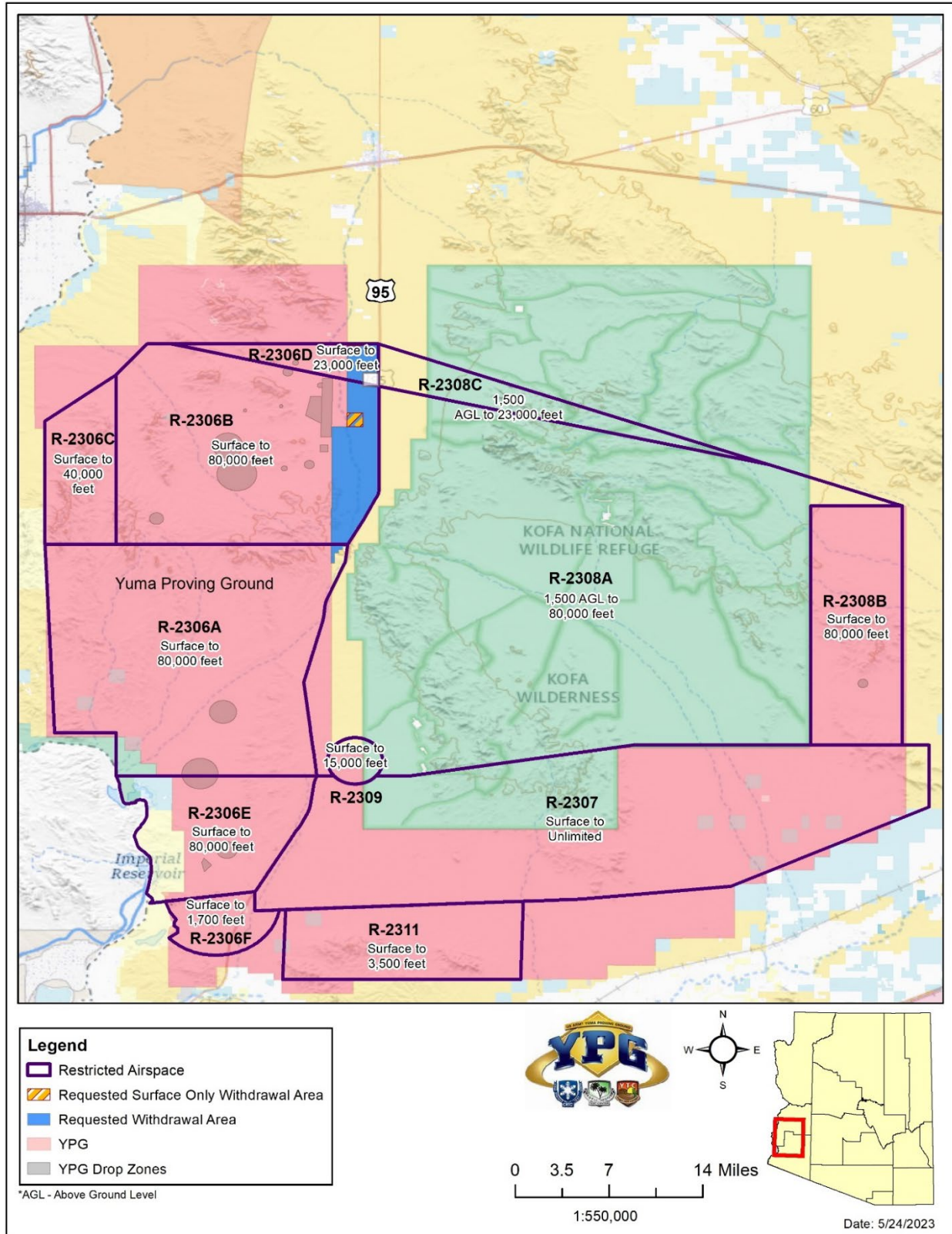


Figure 3-5. Restricted Airspace near the Requested Withdrawal Area.

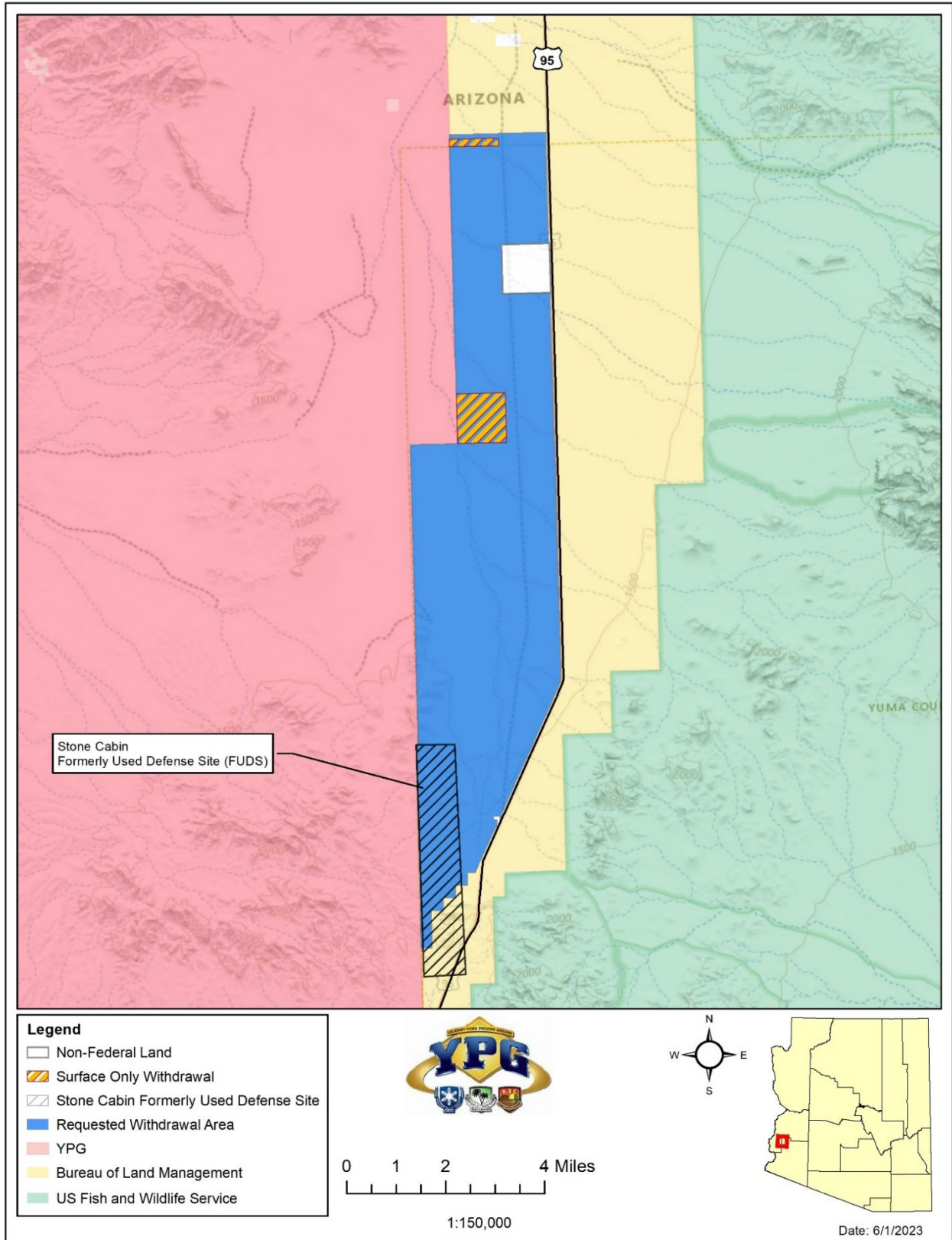


Figure 3-6. Stone Cabin FUDS in the Project Area.

3.4.7 Environmental Consequences

Proposed Action

If the requested withdrawal and reservation is enacted by Congress, the resulting transfer of management from the BLM to the Army of the withdrawn land would result in a change in land use. These lands would no longer be managed by the BLM for multiple use and sustained yield, but as an air delivery safety buffer for the Army. Once these lands are within YPG's administrative control, public uses of the land would be managed in accordance with applicable Army's regulations, procedures, and management plans including YPG's INRMP. YPG would revise the INRMP to include the withdrawn land, and resources present would be managed in accordance with this plan. Future management under the INRMP could result in beneficial environmental effects because the withdrawal would reduce the potential for land-disturbing activities (e.g., dispersed recreation) to occur in the project area. Since the project area would serve as an air delivery safety buffer, with minimal anticipated usage, there would be a reduction in the potential for direct impacts because of the reduction in public use, and elimination of the potential for mining related activities for those areas where the federal government owns both the surface and subsurface. There would be no change in airspace requirements. The reduction in public access to the area would have the beneficial effect of limiting public access to the Stone Cabin FUDS site which would lessen the risk of the public encountering UXO on that site.

No permanent utilities would be required for the Proposed Action. The requested withdrawal and reservation is subject to valid existing rights, and the project area would continue to be available for current authorized ROWs. If the requested withdrawal is enacted by Congress, the BLM could only issue additional authorizations outside of the Parker-Blaisdell utility corridor for nonmilitary uses through consultation with the Army to ensure that such actions do not interfere with the military purpose of the withdrawal. For potential ROW applications within the utility corridor (e.g., additional transmission lines), the BLM would first try and locate the requested ROW outside of the project area. If a requested new utility corridor ROW is of regional significance, and cannot be located outside of the project area, the BLM would consult with YPG to mitigate any potential non-compatible impacts of approving the ROW request as much as possible. These ROW applications would be analyzed on a case-by-case, site-specific basis.

The addition of the project area to YPG would add approximately 56 miles of existing unpaved roads to YPG's infrastructure. This would represent a loss of public use to approximately 3% of the designated routes from the La Posa Travel Management Plan area. If the withdrawal request is approved by Congress and the project area is used as a safety buffer, recreational OHV use would interfere with the scheduling of the air delivery testing schedules and therefore, these routes would no longer be available for recreational OHV use. Cibola Lake Road is a county-maintained road; therefore, YPG would coordinate with Yuma County on closure notice procedures during air delivery test operations. Recovery vehicles may use roads in the interior of the project area or Highway 95 as needed to facilitate access to the recovery site. Use of interior roads would not result in traffic impacts. Given the periodic use of vehicles for retrieval and the limited number of vehicles, use of Highway 95 would result in minimal, if any, impacts.

If Congress enacts legislation for the requested withdrawal, YPG would expand its current recreational hunting permit system on the installation to include the project area. Hunting would be allowed in accordance with the existing procedures for YPG and would only be permitted when it is safe to do so. YPG would allow hunter vehicle access only on existing roads; no off-road driving would be permitted.

Cumulative Effects

The geographic extent of the cumulative effects analysis area for existing land use is the project area and the 0.5-mile buffer surrounding the withdrawal. Enactment of the withdrawal would preclude future mining-related development associated with any new mining claims, grazing, recreational OHV use, and other appropriate land uses within the withdrawn lands that would substantially interfere with YPG's intended use of these lands. The requested withdrawal and reservation is subject to valid existing rights, and the project area would continue to be available for current authorized ROWs. No other activities are currently planned for the project area that would affect land use. If the requested withdrawal is enacted by Congress, the BLM could only issue additional authorizations outside of the Parker-Blaisdell utility corridor for nonmilitary uses through consultation with the Army to ensure that such actions do not interfere with the military purpose of the withdrawal. For potential ROW applications within the utility corridor, such as an additional transmission lines, BLM would first try and locate the requested ROW outside of the project area. If a requested new utility corridor ROW is of regional significance, and cannot be located outside of the withdrawal area, BLM would consult with YPG to mitigate any potential non-compatible impacts of approving the ROW request as much as possible. There are currently no pending transmission line requests for this utility corridor. The Proposed Action, when considered together with reasonably foreseeable future actions, is not anticipated to have cumulative effects on land use.

Alternative 1-Withdrawal of Shorter Duration, Such as 25 Years

Under Alternative 1, Congress would withdraw and reserve for Army use the same area, with the same boundary and land management provisions as the Proposed Action; however, the duration of the Highway 95 withdrawal would be limited to a shorter period (e.g., 25 years) rather than being of indefinite duration. During this time, the impacts to land use would be the same as described above for the Proposed Action. The Army would have the option to request an extension of the land withdrawal and reservation should there be a continuing military need for the land beyond the expiration date of the initial withdrawal term. If the request for a withdrawal extension is not approved, the land would be returned to the Secretary of the Interior and the BLM would be responsible for management of the resources in accordance with FLPMA and the RMP.

No Action Alternative

Under the No Action Alternative, Congress would not enact legislation to withdraw and reserve the land as requested; the land would remain BLM-managed public land. The BLM Yuma Field Office would retain management responsibility for uses of the 22,000 acres of public lands. The BLM public lands would continue to be managed pursuant to FLPMA and the RMP (BLM 2010), and other applicable laws and regulations. As these lands are near the boundary of YPG, it is still possible that parachute loads can inadvertently drift beyond YPG lands. In the event this happens, YPG would follow BLM guidance and procedures for recovering any item that falls on public land.

3.5 Recreation and Public Access

The project area is comprised of federal public land currently administered by the BLM Colorado River District, Yuma Field Office. This public land is managed by the BLM for multiple use and sustained yield in accordance with FLPMA. The RMP (BLM 2010) provides management guidance and direction for the public lands in the project area. The multiple land uses addressed in the RMP include, but are not limited to, recreation and OHV travel on designated routes.

Recreational opportunities are available in the project area as well as on surrounding BLM lands. These public lands are available for OHV riding, hiking, photography, camping, hunting, recreational target shooting, horseback riding, wildlife viewing, and mountain biking. These lands are part of the BLM La Posa Destination Special Recreation Management Area (SRMA). The SRMA is subdivided into six Recreation Management Zones (RMZs). The project area is located within the Highway 95 RMZ, which is zoned for auto-based landscape touring and wildlife and wildflower viewing. The prescribed recreation settings for the project area are Rural Natural and Rural Developed (BLM 2010). The Rural Natural recreation setting, which comprises the majority of the project area, provides “prevalent opportunities to see, hear, or smell the natural resources because development, human activity, and natural resource modifications are occasional and infrequent; socialization with others is expected and tolerated; opportunity to relieve stress and to get away from built environment is important...” (BLM 2010). The approximately 0.5-mile strip of the project area adjacent to Highway 95 is in the Rural Developed recreation setting. The Rural Developed recreation setting provides “occasional or periodic opportunities to see, hear, or smell the natural resources because of the common and frequent level of development, human activity, or natural resource modification...” (BLM 2010). The requested 22,000-acre withdrawal area represents less than 2% of the public lands managed by the BLM Yuma Field Office.

The BLM classifies routes across public land as open, closed, or limited to designated routes in accordance with 43 CFR 8342.1 (USACE 2023). The BLM may institute additional closures or restrictions at any time to protect persons, property, and public lands and resources (43 CFR 8364). The BLM Yuma Field Office designated a network of OHV trails within the project area as part of the La Posa Travel Management Plan (see Figure 3-4). There are approximately 2,020 miles of designated routes in the La Posa Travel Management Plan (BLM 2016b). The project area contains approximately 56 miles of designated routes (including Cibola Lake Road), which represents less than 3% of the routes identified in the La Posa Travel Management Plan (BLM Yuma Field Office 2023). These routes are primarily used for access by hunters or other recreational users accessing these lands. No management actions identified in the RMP for the establishment of hiking trails, equestrian trails, or OHV use are proposed within the project area. Based on a review of the RMP (BLM 2010), active land use authorizations, and field observations, the primary type of recreation use in the project area includes dispersed recreation, to include hunting and occasional OHV use (USACE 2023). Existing recreational use is minimal in this area, and there is an abundance of public land available for free recreational use surrounding the project area (USACE 2023).

The Highway 95 RMZ encompasses the Proposed Highway 95 National Scenic Byway corridor. Between Yuma and Quartzsite, the road provides scenic landscape viewing opportunities on BLM, Kofa NWR, and YPG-administered lands (BLM 2010). No distinguishing topographic, geologic, or points of interest are present in the project area.

Kofa NWR is located east of Highway 95 and the project area. The NWR is managed by USFWS in accordance with the Kofa NWR and Wilderness Interagency Management Plan (USFWS 1996). Kofa NWR is open to hiking, wildlife viewing, camping, and hunting, as allowed by AZGFD regulations.

If Congress approves the requested withdrawal, the project area would be included within YPG’s INRMP. Information regarding access and recreation on YPG is addressed in the INRMP (YPG 2023a) and is incorporated herein by reference. Recreational use on YPG is regulated to the extent necessary to safeguard public health and safety, to provide for national security and YPG’s mission, and to preserve environmental quality and natural and cultural resource values. Public use of YPG is prohibited unless expressly authorized. The Army regulates the private use of OHVs on the lands it administers in accordance with the guidelines set forth in EO 11644, *Use of Off-Road Vehicles on Public Lands*, and AR 200-1. Recreational OHV use is prohibited on YPG with the exception of crossing the installation on public roadways. Authorized hunters may use OHVs on YPG; however, access is limited to existing roads within YPG (YPG 2023a).

Hunting is a primary recreational activity on YPG, with approximately 200 hunting permits issued per year (YPG 2023a). YPG administers hunting in some parts of the installation in cooperation and coordination with AZGFD. This activity is administered under the Sikes Act, USAYPG Regulation No. 210-11 (2022) and in accordance with 10 U.S.C 2671; AR 200-1, 210-21, and 385-63; Department of Defense Instruction 4715.03; Department of the Army (DA) Pamphlet 420-7; Technical Manual 5-633; DA Memoranda SFIM-SW-Z (May 6, 2003), and SFIM-OP-P (March 13, 2003). Due to military mission and safety constraints, only a portion of YPG is open to recreational hunting by the public. In order to hunt on YPG, users must obtain a YPG Hunting Access Permit. Requirements are described in the INRMP (YPG 2023a) and USAYPG Regulation No. 210-11. Camping is authorized for hunting on YPG in accordance with YPG hunting regulations. Areas may be closed to camping based on resource sensitivity or safety concerns. Parking and camping are only authorized within 100 feet of existing roads or navigable washes (YPG 2023a).

YPG does not currently authorize general OHV recreation. Any future OHV recreation authorization on YPG must consider the impact these vehicles could have on natural and cultural resources, as well as the military mission.

3.5.1 Environmental Consequences

Proposed Action

If the withdrawal request is enacted by Congress, existing public access and recreation use in the project area would change. Use of the area as a safety buffer would preclude most recreational use, including OHVs, because it would interfere with the scheduling of air delivery testing schedules. Current recreational use of the project area is limited, and impacts are expected to be minimal. Public access and uses of the land would be managed in accordance with applicable Army regulations, procedures, and management plans, including YPG's INRMP (YPG 2023a). Casual use access by the public would not be allowed and access would only be granted to authorized individuals through range access procedures. YPG would expand its current recreational hunting permit system on the installation to the project area. Once these lands are within YPG's management, public uses of the land would be managed in accordance with applicable Army's regulations, procedures, and management plans including YPG's INRMP which only authorizes recreational hunting on a permit system. Hunting activity within the project area would be incorporated into YPG's existing permitted hunting program and allowed when consistent with the military mission and safety constraints.

The loss of less than 2% of the public lands managed by the BLM Yuma Field Office represents a small amount of the overall available land with the types of opportunities provided by these recreation settings. Existing recreational use is minimal in this area and there is an abundance of public land available for similar recreational uses surrounding the project area (USACE 2023). Similarly, the loss of approximately 3% of the designated routes in the La Posa Travel Management Plan area would not represent a substantial loss because high levels of use are not known to occur in this area and routes are available in the surrounding area. Although restricted, public access would be allowed to the extent it would be consistent with safety and security requirements, in accordance with the Sikes Act. There are no fences or gates planned; however, apart from the Cibola Lake Road, which is County-maintained, and hunting access, when permitted, public access would not be allowed. Dispersed recreation and occasional OHV use would continue to be available on surrounding BLM lands. During scheduled Cibola Range air delivery training events, YPG would continue to coordinate with both La Paz and Yuma Counties regarding the temporary closure of Cibola Lake Road. Overall, because of the low levels of use in the project area and the vastness of surrounding lands with higher quality recreational opportunities, impacts to public access and recreation from the Proposed Action would be minor.

Cumulative Effects

The geographic extent of the cumulative effects analysis area for recreation and public access is the project area and the 0.5-mile buffer surrounding the withdrawal. YPG is located next to a substantial amount of public lands that provide public outdoor recreation opportunities in Sonoran Desert environments that are similar to those in the project area. Recreation would continue to be available on these surrounding lands. Enactment of the withdrawal would preclude future mining related to potential new mining claims, grazing, and the majority of appropriative land uses within the withdrawn lands. In consultation with the Army and YPG, BLM could potentially issue certain rights-of-way within the requested withdrawal area. This would contribute to conservation of the Sonoran Desert landscape in the area. Climate change may impact recreation in the surrounding area due to the combination of a hotter and drier climate that would affect desert vegetation and wildlife (Garfin et al. 2014). No other actions are planned for the project area that would affect recreation and public access. There would be negligible to no cumulative impact on public access and recreational resources.

Alternative 1

Under Alternative 1, the same area would be withdrawn and reserved for Army use by Congress, with the same boundary and land management provisions as the Proposed Action. The difference between this alternative and the Proposed Action is that the duration of the withdrawal would be limited to a shorter period (i.e., 25 years) rather than an indefinite duration. During this time, the impacts to public access and recreation would be the same as described above for the Proposed Action. The Army would have the option to request an extension of the land withdrawal and reservation should there be a continuing military need for the land beyond the expiration date of the initial withdrawal term. If the request for a withdrawal extension is not approved, the land would be returned to the Secretary of the Interior and the BLM would be responsible for management of the public access and recreational resources in accordance with the FLPMA and the RMP (BLM 2010).

No Action Alternative

Under the No Action Alternative, the BLM Yuma Field Office would continue responsibility for management of public access for recreation in accordance with the RMP (BLM 2010) without change from current conditions. The BLM public lands would continue to be managed pursuant to FLPMA and the RMP (BLM 2010), and other applicable laws and regulations. The management prescriptions and existing conditions described in the affected environment discussed in this section would continue.

3.6 Socioeconomic Values and Environmental Justice

The information in this section summarizes the socioeconomic characteristics of La Paz and Yuma Counties and representative towns and Census Designated Places² (CDPs) within these counties near YPG (Figure 3-7), which form the Highway 95 Land Withdrawal region of influence and analyzes the socioeconomic impacts, if any, that the requested withdrawal would have on these communities.

² Census Designated Places are a statistical geography representing closely settled, unincorporated communities that are locally recognized and identified by name. The purpose of CDPs is to provide meaningful statistics for well-known, unincorporated communities. CDPs discussed in this report include Ehrenberg, Fortuna Foothills, La Paz Valley, and Cibola.

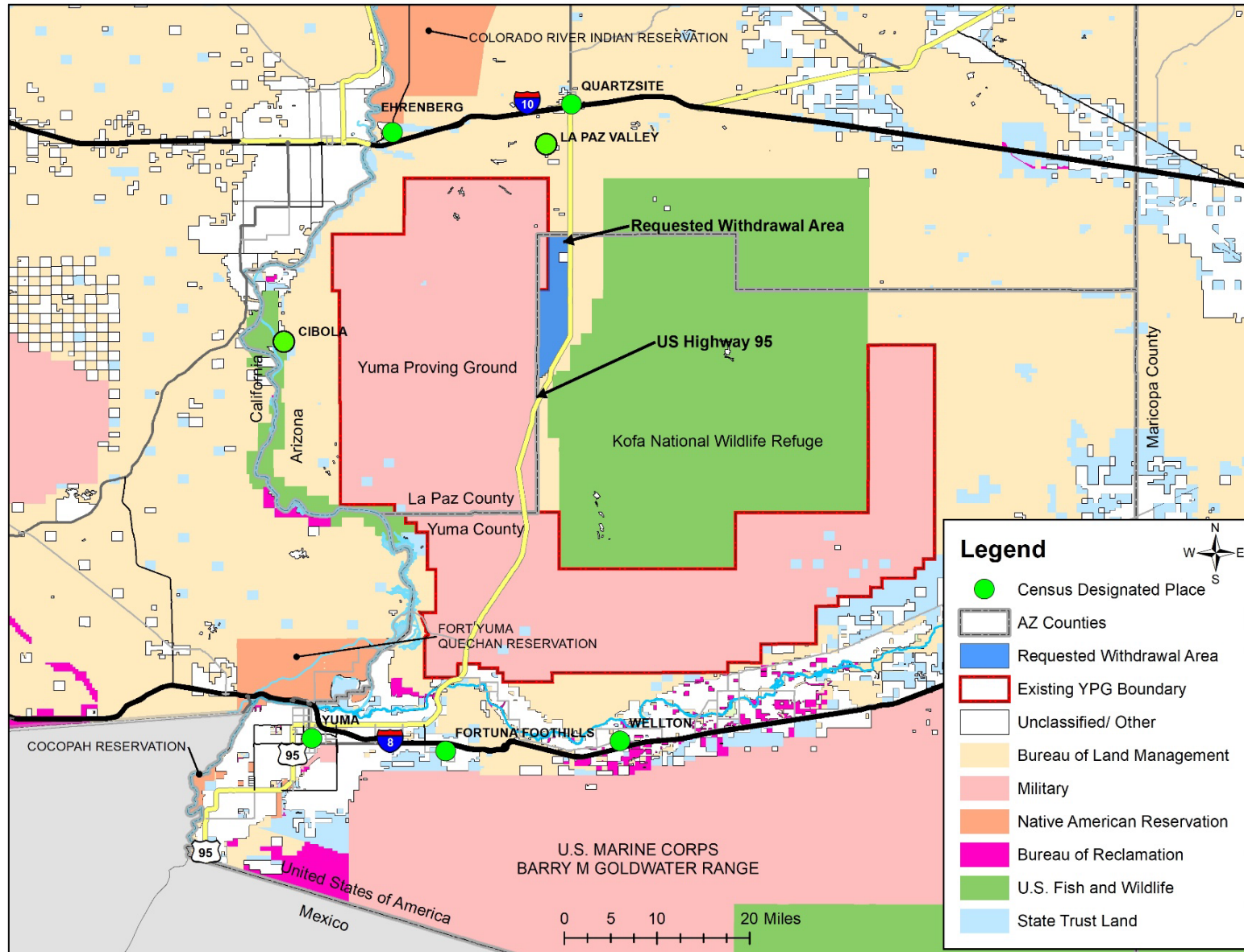


Figure 3-7. Counties, Towns, CDPs, and Native American Communities near the Withdrawal Area.

Three Native American communities located near YPG are also included: (1) the Colorado River Indian Reservation, (2) Fort Yuma Indian Reservation, and (3) Cocopah Indian Reservation. For the purposes of this analysis, information for these reservations is presented along with the information for area communities, even though they are federally recognized sovereign entities. The concerns of Tribes and residents of the reservations are also addressed in Section 3.3.

The data used in this section are predominantly from the U.S. Census, which is conducted every 10 years and was most recently updated in the year 2020. Additional data were obtained from the U.S. Census Bureau's American Community Survey database, which is updated annually. Updated data were not available for some communities; it is indicated in the notes where older data were used. Detailed information for this section is included in Appendix Q.

Western Arizona is popular with seasonal/part-time residents, with large increases in population and visitation during the cooler months (November to April), and fewer residents/visitors during the warm months (May-October) (ADOT 2010). Many of these seasonal residents are retired or are no longer part of the work force.

3.6.1 Population Trends

Between 2010 and 2021, the population in Arizona grew 12.0% with a 2021 population estimate of 7,264,877. In 2021, Arizona was the second fastest growing state in the United States. Over that same period, Yuma County increased by 5.4% but La Paz County decreased by 19.9%.

The populations of the local communities surrounding the requested withdrawal area have similarly varied trends, with some increasing and some decreasing. In Yuma County, the City of Yuma population increased by 4.1% and Fortuna Foothills CDP increased by 5.4%. Within La Paz County, the Town of Quartzsite and La Paz Valley CDP populations increased by 2.7 and 11%, respectively, while decreases in population occurred in the Ehrenberg and Cibola CDPs (31.6 and 49.5%, respectively). As noted above, many western Arizona populations fluctuate significantly throughout the year. For example, Town of Quartzsite welcomes up to two million visitors each winter, including part-time resident "snow birds" (Quartzsite Area Chamber of Commerce 2019), but had a year-round population of only 3,756 in 2020. Population totals for area communities are provided in Table 3-6.

Population increases and decreases were also observed in the nearby Native American communities according to U.S. Census data. The Cocopah Indian Reservation population increased slightly (4.7% increase), while Fort Yuma Indian Reservation decreased by 13.6% and the Colorado River Indian Reservation decreased by 3.8%.

3.6.2 Employment

Many unemployment rates for communities within the region of influence exceeded the rate for the state of Arizona as a whole (5.6%), as of November 2022. The unemployment rates for Yuma and La Paz counties were 8.4 and 7.7%, respectively. Unemployment rates for cities, towns, and CDPs within the area ranged from 0% (Cibola and La Paz Valley CDPs) to 15.5% (Ehrenberg CDP). The nearby Native American communities experienced rates from 7.0% (Colorado River Indian Reservation) to 16.4% (Cocopah Indian Reservation) in 2021, the last year with available data (U.S. Census Bureau 2022a).

Table 3-6. Population Trends Around the Requested Withdrawal Area (2010 and 2021)

Location	2010*	2021**	Total Change	Percent Change
Arizona	6,392,017	7,264,877	872,860	12.0
Yuma County	195,751	206,990	11,239	5.4
City of Yuma	93,064	97,093	4,029	4.1
Fortuna Foothills CDP	26,265	27,776**	1,511	5.4
La Paz County	20,489	16,408	-4,081	-19.9
Town of Quartzsite	3,653*	3,756**	103	2.7
Ehrenberg CDP	1,470*	1,005**	-465	-31.6
La Paz Valley CDP	506*	562*	+56	11.0
Cibola CDP	281*	142*	-139	-49.5
Cocopah Indian Reservation	817	857**	40	4.7
Colorado River Indian Reservation	8,764	8,431**	-333	-3.8
Fort Yuma Indian Reservation	2,197	1,898**	-299	-13.6

Source: U.S. Census Bureau 2010, 2020, 2021 (www.census.gov)

Note: Some census data were unavailable for the smaller towns and Native American communities; the earliest data available were used.

* Some of the 2010 data indicated that it was a 5-year estimate.

** If 2021 data were not available, 2020 data were used.

3.6.3 Income Characteristics

Median household incomes for La Paz (\$39,732) and Yuma (\$52,563) counties were lower than the median income in Arizona (\$65,913) in 2021 (Table 3-7). On average, the communities examined in Yuma County had a higher median household income than La Paz County. For the years examined, the City of Yuma had the highest median household income (\$56,292) and the Town of Quartzsite had the lowest (\$17,083). Median household income for the Native American communities ranged from \$30,875 at the Fort Yuma Indian Reservation to \$46,659 for the Colorado River Indian Reservation (Table 3-7).

Table 3-7. Income Characteristics (2020 and 2021)

Location	Median Household Income (U.S. Dollars)
Arizona	\$65,913
Yuma County	\$52,563
City of Yuma	\$56,292
Fortuna Foothills CDP	\$52,219
La Paz County	\$39,732
Town of Quartzsite	\$17,083*
Ehrenberg CDP	\$31,591
La Paz Valley CDP	\$32,658
Cibola CDP	\$38,113*
Cocopah Indian Reservation	\$38,607
Colorado River Indian Reservation	\$46,659
Fort Yuma Indian Reservation	\$30,875

Source: US. Census Bureau (<https://data.census.gov>)

*2020 data

3.6.4 Economic Profiles

In terms of employed labor forces by sector in 2020, the communities of Cibola CDP, Ehrenberg CDP, La Paz Valley CDP, Town of Quartzsite, Fortuna Foothills CDP, and City of Yuma overall have major employment in four sectors: (A) wholesale trade and retail trade; (B) transportation, warehousing, and utilities; (C) arts, entertainment, recreation, accommodation, and food services; and (D) educational services, health care and social assistance (see Appendix Q for more information). From 2015 to 2020, the (B) transportation, warehousing, and utilities sector increased by 450% and (A) wholesale trade and retail trade increased by over 200% for the area examined. An increase in (C) arts, entertainment, recreation, accommodation, and food services was also observed, but there was a slight decrease in (D) educational services, health care, and social assistance. Entertainment, recreation, accommodation, food service, and arts are leading industry sectors within the nearby Native American communities (U.S. Census Bureau 2022a).

3.6.5 Housing

Due to steady population growth and high demand, the costs of home ownership and renting have increased statewide. In the first quarter of 2022, Arizona ranked second nationally for annual housing price appreciation at 5.83% (FHFA 2022). The state's home ownership rate was 67.6% in 2021 (U.S. Census Bureau 2022a). Houses in small rural communities like those surrounding the withdrawal area are generally more affordable than larger metropolitan areas like those in Yuma County; however, availability can be more limited, especially in the Ehrenberg CDP and Town of Quartzsite. These communities also face the additional difficulty of housing costs outpacing the annual salaries of their residents. The availability of rentals affordable to extremely low-income households is very limited; and for many, housing is their single greatest expense. The seasonal fluctuations within the population of these areas adds an element of unpredictability to the housing situation. Rentals may only be available for half the year and therefore unavailable to long-term residents, and many people within these communities live in recreational vehicles part or full time.

3.6.6 Contribution of Yuma Proving Ground

Communities on the periphery of YPG, including those examined in this section, are directly and indirectly affected by economic factors related to YPG and its operations. In 2017, the Arizona Military Affairs Commission sponsored a study to assess the direct, indirect, and induced economic impact of the six major military installations and four principal National Guard operations in Arizona. Direct impacts are attributable to the initial activity, indirect impacts encompass vendors and suppliers within the supply chain of direct activity, and induced impacts refer to the spending of wages by direct and indirect employees within local industries (The Maguire Company 2017).

According to this report, 5,611 persons were directly employed by YPG, and an additional 2,478 jobs were indirectly supported through the need for suppliers and vendors, as well as household spending by direct employees. The military, which includes both YPG and the Marine Corps Air Station – Yuma, is the second largest industry in Yuma County (Yuma County Chamber of Commerce 2022), and YPG is Yuma County's largest single employer of civilians. YPG contributed \$385.1 million in direct, indirect, and induced wages, as well as \$1.1 billion in total spending output into the economy for the period examined (Table 3-8). Within Yuma County, agriculture is the number one industry and tourism is the third biggest industry.

Table 3-8. Summary of Yuma Proving Ground Economic Impacts

Impact Type	Jobs	Wages (\$ mil)	Output (\$ mil)
Direct	5,611	\$262.0	\$678.0
Indirect	1,311	\$68.8	\$197.0
Induced	1,168	\$54.3	\$243.0
Total	8,089	\$385.1	\$1,118.0

Source: The Maguire Company, 2017, Appendix 5

Statewide, Arizona's principal military operations create thousands of jobs, billions of dollars of economic activity, and hundreds of millions of dollars of state and local tax revenue. The military industry is the second highest supporter of jobs in the state, when including indirect and induced³ jobs, after distribution and electronic commerce. YPG conducts cross-service training operations, and numerous military units from across the country, as well as friendly foreign units, utilize its resources for training each year. Because federal defense spending is not subject to large fluctuations within the economic cycle, the economic contributions of YPG do not decrease as dramatically as other industries during slowdowns or recessions. Tax revenues and employment also tend to remain stable (The Maguire Company 2017).

3.6.7 Environmental Justice

EO 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*, which was signed April 21, 2023, places new emphasis on advancing Environmental Justice. EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs federal agencies to identify potentially adverse health or environmental effects of their actions that may disproportionately affect minority and low-income populations. Federal agencies must develop strategies to address these effects, promote nondiscrimination in federal programs, and provide these communities of concern with access to public information and participation (EPA 2022). Environmental justice is achieved when everyone, regardless of race, color, national origin, or income, has the same protections from environmental and health hazards, as well as equal access to decision-making processes that affect health and the environment (EPA 2023). The presidential memorandum regarding EO 12898 directs each federal agency to address significant and adverse environmental effects on minority and low-income communities when such analysis is required by NEPA (Clinton 1994). The DoD implements EO 12898 principally through compliance with NEPA (DoD 1995). This assessment follows the DoD strategy as well as the *Environmental Justice Guidance Under the National Environmental Policy Act* (CEQ 1997).

Region of Influence

The region of influence for this analysis includes the communities and Tribal nations in close proximity to the project area. Utilizing the Community-Level Socioeconomic Scoping Tool (BLM Sun-Zone Socioeconomics Program), the following six representative communities surrounding the project area were identified:

1. Cibola CDP,

³ Indirect economic impacts are those economic activities undertaken by vendors and suppliers within the supply chain of the direct activity as a result of the initial economic activity. Induced economic impacts result from spending of wages paid to employees in local industries involved in direct and indirect activities.

2. La Paz Valley CDP,
3. Town of Quartzsite,
4. Ehrenberg CDP,
5. Fortuna Foothills CDP, and
6. City of Yuma.

CEQ guidance directs that Indian Tribes should be included with low-income and minority populations as Environmental Justice communities (CEQ 1997); as such, census tracts that encompass parts of Native American Reservations within Arizona surrounding the project area have been identified. The Cocopah Indian Reservation covers 6% of census tract 040270110.00 and 23% of census tract 040270115.01 in Yuma County. The Fort Yuma Indian Reservation covers 3% of census tract 040270109.14 in Yuma County. The Colorado River Indian Reservation covers 99% of census tract 040129403.00 in La Paz County. These tracts are identified as follows:

1. Cocopah Indian Reservation Tract 110,
2. Cocopah Indian Reservation Tract 115.01,
3. Fort Yuma Indian Reservation Tract 109.14, and
4. Colorado River Indian Reservation Tract 9403.

These communities are all located within La Paz and Yuma Counties, Arizona, and within a radius of 45 miles from the Project area (Tables 3-9 and 3-10).

Table 3-9. Communities in the Analysis Area

Analysis Area	Cibola CDP	La Paz Valley CDP	Town of Quartzsite	Ehrenberg CDP	Fortuna Foothills CDP	City of Yuma
Reference Area	La Paz County	La Paz County	La Paz County	La Paz County	Yuma County	Yuma County
Total population in 2020	286	515	3,756	1,005	29,297	97,428
Median household incomes (\$) in 2020	38,113	30,423	17,083	38,393	49,129	52,183
Poverty rates in 2020	11.5%	23.5%	27.0%	26.8%	10.9%	16.7%
Minority population in 2020	45.5%	0.0%	18.5%	23.1%	32.1%	66.7%

Table 3-10. Native American Reservations in the Analysis Area

Analysis Area	Cocopah Indian Reservation Tract 110	Cocopah Indian Reservation Tract 115.01	Fort Yuma Indian Reservation Tract 109.14	Colorado River Indian Reservation Tract 9403
Reference Area	Yuma County	Yuma County	Yuma County	La Paz County
Total population in 2020	2,144	2,639	519	4,903
Median household incomes (\$) in 2020	45,000	36,326	47,969	32,533
Poverty rates in 2020	25.6%	32.2%	26.8%	38.0%
Minority population in 2020	62.8%	93.0%	59.9%	81.8%

Note: "n/a" indicates that the data point is not available.

Data source: compiled based on U.S. Census Bureau, 2022a. 2016-2020 American Community Survey 5-Year

CEQ guidance directs that adverse health and environmental effects be evaluated against an appropriate comparison community, or reference area, to determine whether the impact disproportionately affects minority, low-income populations, or Tribal communities (CEQ 1997). In this analysis, the reference areas are the counties (Yuma or La Paz) in which the local community is located (Table 3-11).

Table 3-11. Reference Areas

Reference Area	La Paz County	Yuma County	Arizona	United States
Total population in 2020	21,035	211,931	7,174,064	326,569,308
Median household incomes (\$) in 2020	34,956	48,790	61,529	64,994
Poverty rates in 2020	22.9%	18.2%	14.1%	12.8%
Minority population in 2020	42.8%	69.4%	45.9%	39.9%

Data source: compiled based on U.S. Census Bureau, 2022a. 2016-2020 American Community Survey 5-Year.

Population Groups of Concern

CEQ guidance defines “minorities” for consideration in evaluating environmental justice, or the environmental justice population, as all persons who self-identify as Hispanic or as a race other than white; that is, all persons other than non-Hispanic white. The CEQ guidance also requires that minority populations should be identified for consideration of environmental justice where either: (a) the minority population of the affected area exceeds 50% or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (CEQ 1997). A low-income population is identified using the annual statistical poverty thresholds from the Bureau of the Census. If a family’s total income is less than the family’s threshold, then each individual within that family is considered in poverty (U.S. Census Bureau 2023). In addition, the BLM has adopted the following five criteria in determining whether a community is an Environmental Justice community:

- Environmental Justice Community Criterion 1: minority population >50%,
- Environmental Justice Community Criterion 2: minority population >110% of reference area,
- Environmental Justice Community Criterion 3: poverty rate >50%,
- Environmental Justice Community Criterion 4: poverty rate >100% of reference area, and
- Environmental Justice Community Criterion 5: tribal communities.

If at least one answer to the above five criteria is yes, then the community overall is an Environmental Justice community.

Datasets from both the latest 2016-2020 American Community Survey 5-Year Estimates and 2011-2015 American Community Survey 5-Year Estimates (U.S. Census Bureau 2022b) are compiled within the Community-Level Socioeconomic Decision Tool (BLM Sun-Zone Socioeconomics Program) for the following key indicators:

- (A) Population.
- (B) Median household income.
- (C) Poverty rate.
- (D) Ethnicity composition.
- (E) Unemployment rate.

- (F) Population composition by age.
- (G) Population with less than a high school education (i.e., percent of individuals aged 25 and over with less than high school degree).
- (H) Linguistic isolation rate (i.e., percent of individuals aged 5 and over who speak languages other than English at home or speak English less than very well).

Relevant indicators for the communities of concern are discussed below. Detailed datasets can be found in Appendix Q.

Environmental Justice Communities Within the Region of Influence

The data compiled, analyzed, and presented in Tables 3-9 and 3-11 indicate that, for the recent year 2020, four out of the six communities within a radius of 45 miles from the project area should be considered as Environmental Justice communities of concern:

- (2) La Paz Valley CDP based on Environmental Justice Community Criterion 4 (poverty rate >100% of reference area).
- (3) Town of Quartzsite based on Environmental Justice Community Criterion 4 (poverty rate >100% of reference area).
- (4) Ehrenberg CDP based on Environmental Justice Community Criterion 4 (poverty rate >100% of reference area) and Environmental Justice Community Criterion 5 (tribal community).
- (6) City of Yuma based on Environmental Justice Community Criterion 1 (minority population >50%) and Environmental Justice Community Criterion 5 (tribal community).

In addition, Tables 3-10 and 3-11 indicate that, for the recent year 2020, the tribal communities examined surrounding the project area should be considered as Environmental Justice communities of concern:

- (7) Cocopah Indian Reservation Tract 110 based on Environmental Justice Community Criterion 1 (minority population >50%), Environmental Justice Community Criterion 4 (poverty rate >100% of reference area), and Environmental Justice Community Criterion 5 (tribal community).
- (8) Cocopah Indian Reservation Tract 115.01 based on Environmental Justice Community Criterion 1 (minority population >50%), Environmental Justice Community Criterion 2 (minority population >110% of reference area), Environmental Justice Community Criterion 4 (poverty rate >100% of reference area), and Environmental Justice Community Criterion 5 (tribal community).
- (9) Fort Yuma Indian Reservation Tract 109.14 based on Environmental Justice Community Criterion 1 (minority population >50%), Environmental Justice Community Criterion 4 (poverty rate >100% of reference area), and Environmental Justice Community Criterion 5 (tribal community).
- (10) Colorado River Indian Reservation Tract 9403 based on Environmental Justice Community Criterion 1 (minority population >50%), Environmental Justice Community Criterion 2 (minority population >110% of reference area), Environmental Justice Community Criterion 4 (poverty rate >100% of reference area), and Environmental Justice Community Criterion 5 (tribal community).

Key socioeconomic characteristics of the analysis area include:

- (2) La Paz Valley CDP, (3) Town of Quartzsite, and (4) Ehrenberg CDP have slightly higher poverty rates in 2020 (23.5%, 27%, and 26.8%, respectively) than La Paz County (22.9%), the reference area in which they are located.

- In 2020, City of Yuma had a minority population of 66.7%.
- (4) Ehrenberg CDP had a higher unemployment rate in 2020 (10%) than the county and state in which it is located; that is, approximately three times higher than La Paz County (3.3%) and the State of Arizona (3.5%).
- In terms of preliminary education levels (that is less than high school education), (1) Cibola CDP has a remarkably higher rate in 2020 (40.6%) than those of the county and state in which it is located; that is, approximately two and three times as much as those of La Paz County (19.5%) and the State of Arizona (12.1%).
- (1) Cibola CDP had a linguistic isolation rate (31.8%), which was approximately 4.5 times higher than La Paz County (7.1%) and the State of Arizona (7.8%). At 11.2%, (3) Town of Quartzsite also had a higher linguistic isolation rate than the reference community.

Additionally, key socioeconomic characteristics of the census tracts that encompass tribal lands include:

- (7) Cocopah Indian Reservation Tract 110, (8) Cocopah Indian Reservation Tract 115.01, (9) Fort Yuma Indian Reservation Tract 109.14, and (10) Colorado River Indian Reservation Tract 9403 have much higher poverty rates in 2020 (25.6%, 32.2%, 26.8%, and 38.0%, respectively) than the reference area in which they are located; that is, the poverty rates in these communities range from approximately 40 to 77% higher than the reference area in which they are located.
- In 2020, all four communities had minority populations that greatly exceed 50%.
- (10) Colorado River Indian Reservation Tract 9403 had a much higher unemployment rate in 2020 (9.1%) than the county and state in which it is located; that is, approximately 3 times higher than La Paz County (3.3%) and the State of Arizona (3.5%). (8) Cocopah Indian Reservation Tract 115.01 had a slightly higher unemployment rate in 2020 (5.3%) than the county and state in which it is located.
- In terms of preliminary education levels (i.e., less than high school education), (7) Cocopah Indian Reservation Tract 110, (8) Cocopah Indian Reservation Tract 115.01, and (10) Colorado River Indian Reservation Tract 9403 had higher rates in 2020 (29.8%, 36.9%, and 27.4%, respectively) than those of the county and state in which they are located.
- (2) Cocopah Indian Reservation Tract 115.01 and (10) Colorado River Indian Reservation Tract 9403 had linguistic isolation rates (25.9% and 7.8%, respectively) that exceeded the reference communities in which they are located.

These combinations of socioeconomic characteristics suggest that the following communities could be identified with priority concerns for benefiting from such programs that have the potential to enhance specific aspects of socioeconomic well-being:

- The communities in (2) La Paz Valley CDP, (3) Town of Quartzsite, (4) Ehrenberg CDP, (7) Cocopah Indian Reservation Tract 110, (8) Cocopah Indian Reservation Tract 115.01, (9) Fort Yuma Indian Reservation Tract 109.14, and (10) Colorado River Indian Reservation Tract 9403 could be identified as having priority concerns that would benefit from programs that have the potential to increase income levels, and/or reduce poverty levels, and/or reduce unemployment levels.
- The communities in (1) Cibola CDP, (3) Town of Quartzsite, (7) Cocopah Indian Reservation Tract 110, (8) Cocopah Indian Reservation Tract 115.01, and (10) Colorado River Indian Reservation Tract 9403 could be identified as having priority concerns that would benefit from programs that have the potential to improve the education attainment level and/or linguistic connection.

3.6.8 Environmental Consequences

Proposed Action

Socioeconomics

If Congress enacts the requested land withdrawal, use of the project area as a safety buffer would expand the SSZs and enable air delivery systems to be tested to their full capabilities for altitude and precision. This increased capability would keep YPG at the forefront of military testing and would be a long-term, beneficial indirect socioeconomic impact as YPG continues to provide jobs and economic stimulation in the surrounding communities. Existing jobs related to the testing of air delivery systems would be retained; however, the Proposed Action is not a new major military program or a major expansion of existing military programs or infrastructure that could induce additional growth of the local and regional economy. The Proposed Action would not require deployment of mass military personnel; additional staff hiring; construction of additional facilities; or additional support services and personnel. There is no expectation of increased workforce resulting from the withdrawal and therefore, direct impacts to population trends, income characteristics, economic profiles, or housing are not expected. There is currently no mining in the area and the Mineral Potential Report, Proposed Land Withdrawal, Yuma County and La Paz County (BLM 2022), which is summarized in Appendix F and incorporated herein by reference, identified a low potential for mineral resources in the project area; thus, a loss in revenue from the loss of mining in the future is not anticipated.

Communities in the examined area, particularly in Yuma County, are projected to continue to experience population growth as the State of Arizona continues to grow. Population growth could lead to increased recreation use of public land in the region of influence. Recreation use of the project area is low and there is abundant nearby land that would remain open to recreation. Loss of the project area for recreation use is not expected to result in any socioeconomic effects. It is unlikely that the area would be developed or changed from its current status in the future under the present BLM management; therefore, the withdrawal is not anticipated to have any adverse socioeconomic impacts.

Environmental Justice

CEQ guidance states that, “Agencies should consider relevant public health data and industry data concerning the potential for multiple or cumulative exposure to human health or environmental hazards in the affected population and historical patterns of exposure to environmental hazards, to the extent such information is reasonably available” (CEQ 1997). Agencies should identify, analyze, and address disproportionate and adverse human health and environmental effects (including risks) and hazards of Federal activities, including those related to climate change and cumulative impacts of environmental and other burdens on communities with environmental justice concerns. (Executive Order 14008, 2023). This section addresses potential concerns about environmental justice by discussing any disproportionate environmental effects of the alternatives on low-income and minority populations. For there to be impacts to Environmental Justice communities, the Proposed Action must result in potential impacts. The requested withdrawal area is located at sufficient distances from populated areas such that there would be no disproportionate impacts to low income or minority populations.

If the withdrawal is authorized by Congress, there would be no increase in emissions and the Army’s use of the project area as a buffer would not result in any impacts to air quality. Short-term fugitive dust and emissions increases associated with fuel combustion would occur if recovery activities were required following errant air drop operations. These sporadic impacts would be of short duration and would not cover distances great enough to have any effect on surrounding Environmental Justice communities.

Noise levels would increase temporarily when personnel are in the area preparing for any recovery operations. Ground-disturbing activities from loads inadvertently landing within the project area or during recovery operations would not generate sufficient noise to leave the area or affect members of the public. These activities are short in duration and anticipated to be rare, and the noise environment would return to ambient levels following any recovery activities. The area is remote and noise levels from equipment or vehicle noise would be below existing noise levels from vehicles and other sources associated with populated areas; therefore, there would be no adverse noise effects on any Environmental Justice communities.

Cumulative Effects

The geographic extent of the cumulative effects analysis area for socioeconomic resources is a larger area that encompasses the project area and the communities identified by the Community-Level Socioeconomic Decision Tool. The effects of past and present activities in the socioeconomic area being considered are manifested in the existing economic and social conditions in those areas, which were described in the affected environment discussed in this section and considered in the evaluation of impacts for the Proposed Action. The withdrawal is not expected to result in direct social or economic impacts.

No impacts to population trends, income characteristics, economic profiles, or housing and no projected differences in employment were identified for the requested land withdrawal. The withdrawal is not anticipated to reduce any employment opportunities. There is currently no mining in the area and the potential for mineral resources is low; thus, a loss in revenue from the loss of mining in the future is not anticipated and there is no potential for cumulative effects.

Because of the remoteness of the project area and distance to communities considered, noise would not affect any Environmental Justice community. Future actions near the affected area that may have an additive noise effect could be road construction or maintenance or construction associated with potential utility projects if they are proposed in the future. Construction noise is short-term and would not be expected to have any cumulative effects to Environmental Justice populations because of the remoteness of the area. Similarly, air quality impacts from any potential actions that may occur on surrounding lands would be anticipated to be temporary and because of the remoteness of the area would not have any cumulative effects to Environmental Justice populations. Because use of the project area as a safety buffer is not anticipated to increase impacts to human health or environmental hazards meaningfully, there would be no disproportionate effects on the identified Environmental Justice communities.

Alternative 1-Withdrawal of Shorter Duration, Such as 25 Years

Socioeconomic and Environmental Justice impacts under Alternative 1 would be the same as under the Proposed Action for the duration of the withdrawal. After the withdrawal term expires, the management of the project area would revert to the BLM unless another withdrawal term is approved by Congress.

No Action Alternative

If the No Action Alternative is selected, the BLM Yuma Field Office would retain management responsibility for uses of the 22,000 acres of public lands. No changes in socioeconomic conditions or Environmental Justice impacts would be anticipated.

4 PUBLIC OUTREACH AND COORDINATION

This LEIS was prepared in accordance with NEPA and the CEQ implementing regulations (40 CFR Parts 1500-1508). A list of preparers and reviewers who developed the LEIS is provided in Appendix R. The NEPA process and BLM land withdrawal process are regulated by different laws and administrative requirements. This chapter describes the public outreach and coordination details that contributed to developing this LEIS and to processing the BLM land withdrawal application. Details about the NEPA scoping process and the BLM land withdrawal process are provided in the *Final Highway 95 Land Withdrawal LEIS Public Scoping Summary Report* (North Wind 2023), which is available on the project website; a summary of the information is included in this chapter.

4.1 Agency Coordination

The Army has been working on the withdrawal request through informal conversations with the BLM and USACE since approximately 2015. In September 2021, consistent with BLM practices, the Army formally submitted the application for withdrawal and reservation of public lands in accordance with 43 U.S.C. § 157; FLPMA, as amended (43 U.S.C. 1701); 43 U.S.C. 1714; and 43 CFR 2300.

As described in Section 1.3.1, the Army invited the BLM to participate as a cooperating agency in the document preparation and NEPA analysis because of their administrative jurisdiction (40 CFR Part 1501.8). As a cooperating agency, the BLM has provided support and review of the LEIS and other documents prepared for the case file that will support the project's draft legislative proposal; they have also participated in the public outreach process. The BLM is responsible for ensuring the completeness of the case file submission to the Secretary of the Interior for transmission to Congress as the current land management agency and as part of their responsibility under Section 204 of FLPMA to process federal land withdrawals.

As discussed in Section 1.3.3, consultation under Section 106 of the NHPA and Section 7 of the ESA is not required for the legislative action; therefore, the Army will not be formally consulting with the USFWS or the SHPO. However, they will continue to coordinate informally to ensure that the NEPA analysis of the impacts of the Proposed Action includes a description of impacts to the resources protected by these acts.

4.2 Public Involvement: LEIS

The following public involvement activities were completed as part of the LEIS NEPA process.

4.2.1 Project Mailing List

The Army distributed paper and electronic materials to stakeholders, including government agencies, elected officials, Tribes, non-governmental organizations, and interested individuals on a project mailing list developed for this LEIS. Those that submitted comments for the NEPA scoping process were added to the project mailing list.

4.2.2 Federal Register Notice of Intent

The Army's NOI to prepare an LEIS was published in the *Federal Register* on September 9, 2022. This notice served as the official starting date for the scoping period. The NOI briefly discussed NEPA requirements, the proposed action and alternatives, project purpose and need, preliminary resource areas the Army intends to evaluate in the LEIS, scoping meeting dates and times, and the timeframe for the comment period. The NOI also provided a point of contact for questions and the process for submitting comments.

4.2.3 Project Website

The Highway 95 Land Withdrawal project website (<https://ypg-environmental.com/highway-95-land-withdrawal-leis>) was created to share information with the public during the development of the LEIS and land withdrawal process. The website includes background information about the project, public notification announcements, project documents and maps, and information about project-related public meetings. It also includes an electronic form to submit comments. The website has been updated throughout the project with information added or revised based on the project status.

4.2.4 Newspaper Advertisements

A paid advertisement announcing the public scoping period was published in the Yuma Sun on September 18 and 19, 2022, and in the Desert Messenger on September 21, 2022. A Spanish translation of the newspaper advertisement was published in the Bajo El Sol on September 23, 2022.

4.2.5 Project Newsletter

A project scoping newsletter was mailed to interested parties and agencies on September 14, 2022, and electronic copies of the newsletter were sent by email on September 20, 2022. The newsletter announced preparation of the LEIS, provided information on the project purpose and need, described the proposed action and alternatives being considered, and solicited public input in the process. The newsletter was posted to the project website.

4.2.6 U.S. Army Virtual Public Meetings

Two virtual meetings were held: (1) Wednesday, October 19, 2022 (3:00 p.m. Mountain Standard Time) and (2) Thursday, October 20, 2022 (5:00 p.m. Mountain Standard Time). The meetings were held on the Teams platform and included a presentation followed by a question-and-answer period. Panelists included project team members from YPG and the BLM. Transcription was provided by a human transcriber during each virtual meeting. The virtual presentation developed for the public scoping meetings was posted to the project website.

4.3 Public Involvement Methods: Land Withdrawal Process

The Army submitted a land withdrawal application for the requested withdrawal area to the BLM, who is processing the application in accordance with FLPMA and the 1958 Engle Act. Requirements for notifying the public about the withdrawal application and soliciting public comment as part of its application review process are provided in 43 CFR 2310. Some of the comments that were submitted to the BLM relate to the Highway 95 Land Withdrawal LEIS scoping process. The comments received on the concurrent proposed administrative withdrawal on behalf of the BLM for land management evaluation purposes in the Highway 95 Withdrawal area were considered in the development of this LEIS (“Notice of Proposed Withdrawal and Notice of Public Meetings, Arizona” at 87 Fed. Reg. 39116 (Thurs., June 30, 2022)). Public involvement methods for the processing of the Army’s withdrawal application are described below.

4.3.1 BLM Federal Register Notification

The BLM’s “Notice of Withdrawal Application and Notice of Public Meetings for the Yuma Proving Ground, Arizona” was published in the *Federal Register* on April 4, 2022, and included notification of virtual public meetings.

4.3.2 BLM Newspaper Advertisements and Media Releases

The BLM published paid newspaper display advertisements in area newspapers to notify the public of the land withdrawal application and the two virtual public meetings. The paid display advertisement was published in the *Yuma Sun* on April 9, 2022, and in the *Desert Messenger* on April 20, 2022. A Spanish translation of the newspaper advertisement was published in the *Bajo El Sol* on April 15, 2022. The BLM also developed a media release that was issued to media outlets, sent to the Arizona Congressional delegation, and posted to BLM.gov.

4.3.3 BLM Virtual Public Meetings

Two virtual meetings were held on the Teams platform: (1) June 7, 2022 (3:00 p.m. Mountain Standard Time) and (2) June 8, 2022 (5:00 p.m. Mountain Standard Time). The meetings provided information and solicited public comments on the Highway 95 Land Withdrawal Application. The meetings included a presentation that was similar to the one presented during the Army LEIS meetings. Panelists included project team members from the BLM and YPG. Transcription was provided by a human transcriber during each virtual meeting. The presentation was posted to the project website.

4.3.4 Tribal Coordination

On April 7, 2022, YPG sent letters notifying the following Tribes of the requested withdrawal and about the public meetings for the project:

- Ak-Chin Indian Community,
- Chemehuevi Indian Tribe,
- Cocopah Indian Tribe,
- Colorado River Indian Tribe,
- Fort McDowell Yavapai Nation,
- Fort Mojave Indian Tribe,
- Fort Yuma Quechan Indian Tribe,
- Gila River Indian Community,
- Hopi Tribe,
- Salt River Pima-Maricopa Indian Community,
- San Carlos Apache Tribe,
- Tohono O'odham Nation,
- Yavapai-Apache Nation, and
- Yavapai-Prescott Indian Tribe.

Responses were received from the San Carlos Apache Tribe and the Yavapai-Prescott Indian Tribe.

The Arizona SHPO, Advisory Council on Historic Preservation, and affiliated Tribes were invited to the YPG Annual Tribal Meetings on May 4, 2022, and February 13, 2023, where a description of the Highway 95 withdrawal project was provided. The Quechan Indian Tribe and Gila River Indian Community attended the 2022 meeting, and the Fort Yuma Indian Tribe, Gila River Indian Community, and Salt River Pima-Maricopa Indian Community attended the 2023 meeting. Information about the withdrawal was provided to all the meeting invitees.

4.4 Public Comments

Collectively, eight pieces of correspondence were received during the public involvement processes for the LEIS and the withdrawal application. The Army received LEIS scoping comments from one individual, three agencies, and two organizations, while the BLM received comments from one individual and one organization.

Copies of the formal written scoping comments for the LEIS and the BLM land withdrawal process are included in the *Final Highway 95 Land Withdrawal LEIS Public Scoping Summary Report* (North Wind 2023). Substantive comments were considered in development of this LEIS. Figure 4-1 provides an overview of the comments received during the LEIS scoping period by topic, from most frequently to least frequently mentioned.

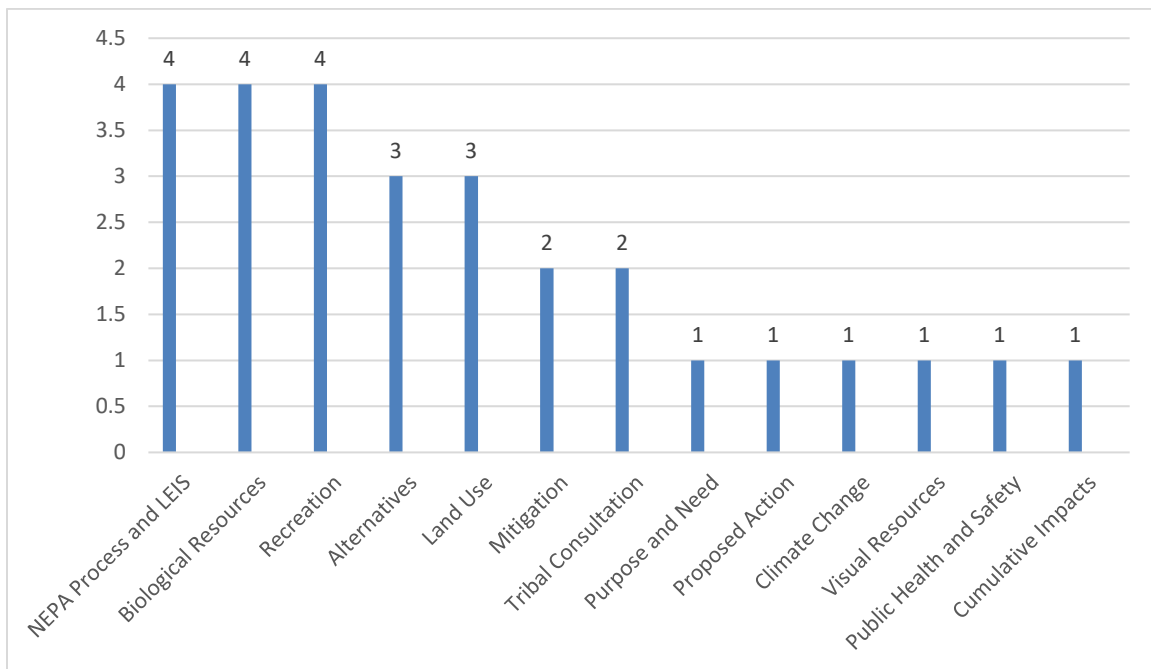


Figure 4-1. Comments Received by Topic.

4.5 Draft LEIS Notification, Availability, and Review

The Draft LEIS is being made available for public review and comment as required by NEPA. During the public review period, a public hearing will be held to present information regarding the action and to provide the public an opportunity to provide comments on the Draft LEIS. More information on these steps is provided below.

4.5.1 Public Notification

The Draft LEIS was submitted to the Environmental Protection Agency, who published a Notice of Availability (NOA) in the *Federal Register*. The NOA announced the availability of the document for review and the dates for the public comment period. Notification and public outreach materials were also posted to the project website, and newspaper advertisements were published in the *Yuma Sun*, *Desert Messenger*, and *Bajo El Sol*. In addition, a copy of the Draft LEIS was posted to the project website public documents page (<https://ypg-environmental.com/highway-95-land-withdrawal-leis/public-documents/>).

4.5.2 Draft LEIS Availability

The NOA announced the beginning of the 45-day public comment period for the Draft LEIS. The Draft LEIS was made available on the project website listed above for individuals wishing to review and comment.

4.5.3 Public Hearings

The project website (<https://ypg-environmental.com/highway-95-land-withdrawal-leis/public-meetings/>) contains information regarding the hearings, which offer an opportunity for the public to provide oral comments on the draft LEIS. Public hearings on this Draft LEIS are scheduled for (*insert dates*).

Written comments can also be submitted during the 45-day public comment period. Comments should be sent to:

usarmy.ypg.imcom.mbx.nepa@army.mil

or

**Highway 95 LEIS
Daniel Steward
YPG Environmental Sciences Division
U.S. Army Garrison Yuma Proving Ground
301 C St. Bldg. 307
Yuma, AZ 85365**

5 REFERENCES

- Arizona Department of Agriculture. 2023. Arizona Administrative Code. Title 3. Agriculture Chapter 3. Department of Agriculture - Environmental Services Division. Arizona Native Plant Law. <https://agriculture.az.gov/sites/default/files/Native%20Plant%20Rules%20-%20AZ%20Dept%20of%20Ag.pdf>. Accessed February 27, 2023.
- Arizona Department of Transportation (ADOT). 2010. *La Paz Transportation Planning Study: Final Report 109*. Phoenix, AZ.
- Arizona Game and Fish Department (AZGFD). 2014. Guidelines for Handling Desert Tortoises Encountered on Development Projects.
- AZGFD. 2020. *Radio-Telemetry Monitoring of Sonoran Desert Tortoises on the Yuma Proving Ground: 2020 Report*. S.L. Arnett-Romero, C.A. Rubke, and R.P. O'Donnell, Wildlife Contracts Branch AZGFD.
- Arizona Interagency Desert Tortoise Team (AIDTT). 2015. Candidate Conservation Agreement for the Sonoran Desert Tortoise in Arizona.
- Averill-Murray, R.C., and A. Averill-Murray. 2005. "Regional-scale estimation of density and habitat use of the Desert Tortoise (*Gopherus agassizii*) in Arizona." *Journal of Herpetology* 39:65-72.
- Averill-Murray, R.C., B.E. Martin, S.J. Bailey, and E.B. Wirt. 2002. "Activity and behavior of the Sonoran Desert tortoise in Arizona." In Van Devender, T.R. (Ed.) *The Sonoran Desert Tortoise: Natural History, Biology, and Conservation*. University of Arizona Press, Tucson, Arizona.
- Brown, D.E. 1994. *Biotic communities: southwestern United States and northwestern Mexico*. University of Utah Press.
- Bureau of Land Management (BLM). 1978. YPG/BLM Wild Free-Roaming Horses and Burros Memorandum of Understanding. Cooperative Management Agreement between YPG and BLM.
- BLM. 2000. Instructional Manual (IM) No. 2001-030. "Military Activities On and Over The Public Lands." Bureau of Land Management, Washington Office.
- BLM. 2008. *Yuma Field Office Proposed Resource Management Plan and Final Environmental Impact Statement*. Yuma Field Office. April 2008.
- BLM. 2010. *Yuma Field Office Record of Decision and Approved Resource Management Plan*. Yuma Field Office. Signed January 29, 2010.
- BLM. 2016a. IM 2016-124, Instruction Memorandum Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands. July 8, 2016. [Potential Fossil Yield Classification \(PFYC\) System for Paleontological Resources on Public Lands | Bureau of Land Management \(blm.gov\)](https://www.blm.gov/press-releases/2016/07/08/potential-fossil-yield-classification-pfyc-system-for-paleontological-resources-on-public-lands).
- BLM. 2016b. La Posa Travel Management Plan. Yuma Field Office, Bureau of Land Management.

- BLM. 2022. *Mineral Potential Report Proposed Land Withdrawal, Yuma County and La Paz County*. O.C. Eke, Bureau of Land Management.
- BLM. No date. *Fundamentals for Managing the Cultural Heritage Program, Traditional Cultural Places & Indian Sacred Sites*.
<https://www.ntc.blm.gov/krc/uploads/646/GuidetoTCPs&SacredSites.pdf>.
- BLM Yuma Field Office. 2023. Eve Castro-Marroquin, Personal Communication, March 2023.
- Clinton, W. 1994. Memorandum For the Heads of All Departments and Agencies. Washington D.C., The White House. February 11, 1994.
- Council on Environmental Quality (CEQ). 1997. *Environmental Justice Guidance Under the National Environmental Policy Act*. Washington D.C., Executive Office of the President. December 10, 1997.
- Department of Defense (DoD). 1995. Strategy on Environmental Justice 11. March 24, 1995.
- Edwards, T., C.R. Schwalbe, D.E. Swann, and C.S. Goldberg. 2004. "Implications of anthropogenic landscape change on inter-population movements of the desert tortoise (*Gopherus agassizii*)."
Conservation Genetics 5:485-499.
- Ehrlich, P.R., D.S. Dobkin, and D. Wheye. 1988. *The Birders Handbook*. New York, New York: Simon & Schuster, Inc.
- Environmental Protection Agency (EPA). 2022. Summary of Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.
<https://www.epa.gov/laws-regulations/summary-executive-order-12898-federal-actions-address-environmental-justice>.
- EPA. 2023. Environmental Justice. <https://www.epa.gov/environmentaljustice>.
- Federal Housing Finance Agency (FHFA). 2022. House Price Index Quarterly Report 16.
https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/HPI_2022Q1.pdf.
- Fritts, T.H., and R.D. Jennings. 1994. "Distribution, habitat use, and status of the Desert Tortoise in Mexico." In Bury, R.B., and D.J. Germano (Eds.) *Biology of North American Tortoises*. National Biological Survey, Fish and Wildlife Research 13. Washington, D.C.
- Grandmaison, D.D. 2012. Landscape-level habitat associations and phylogenetics of desert tortoises on southwestern Arizona military ranges managed by the Army, Air Force, and Marines. Department of Defense Legacy Resource Management Program. Final Report 09-385.
- Grandmaison, D.D., M.F. Ingraldi, and F. R. Peck. 2010. "Desert tortoise microhabitat selection on the Florence Military Reservation, South-Central Arizona." *Journal of Herpetology* 44:581-590.
- Hirschberg, D.M., and G.S. Pitts. 2000. Digital geologic map of Arizona: a digital database derived from the 1983 printing of the Wilson, Moore, and Cooper 1:500,000-scale map.
<http://geopubs.wr.usgs.gov/open-file/of00-409/>
- Ingraldi, M. F., and S. M. Cobbold. 2022. *Assessment of vertebrate Tier 1a and 1b species presence and vegetation classification of the requested Highway 95 BLM withdrawal for the U.S. Army, Yuma Proving Ground, Yuma and La Paz Counties, Arizona*. Final Report, September 2022.

- Morris, G.M., C. Kline, and S.M. Morris. 2015. Status of *Danaus Plexippus* Population in Arizona. *Journal of the Lepidopterist's Society*. 69(2), 2015, 21-107.
- NatureServe. 2023. NatureServe Network Biodiversity Location Data accessed through NatureServe Explorer. NatureServe, Arlington, Virginia. Available <https://explorer.natureserve.org/>. (Accessed: February 24, 2023).
- Nordhaugen, S.E., E. Erlandsen, P. Beier, B.D. Eilerts, R.E. Schweinsburg, T. Brennan, T. Cordery, N.L. Dodd, M. Maiefski, J. Przybyl, S. Thomas, K. Vacariu, and S. Wells. 2006. Arizona's Wildlife Linkages Assessment.
- North Wind Resource Consulting (North Wind). 2023. *Final Highway 95 Land Withdrawal LEIS Public Scoping Summary Report*. Developed for the U.S. Army Garrison Yuma Proving Ground Environmental Division, Yuma, AZ. February 2023.
- Parker, P.L., and T.F. King. 1992. *Guidelines for Evaluating and Documenting Traditional Cultural Properties*. *National Register Bulletin*.
<https://www.nps.gov/subjects/nationalregister/upload/NRB38-Compleweb.pdf>.
- Quartzsite Area Chamber of Commerce & Tourism. 2019. Quartzsite Tourism
<https://quartzsitetourism.com/>.
- Riedle, J. D., R. C. Averill-Murray, C. L. Lutz, and D. K. Bolen. 2008. "Habitat use by desert tortoises (*Gopherus agassizii*) on alluvial fans in the Sonoran Desert, south-central Arizona." *Copeia* 2008:414-420.
- Steward, D. 2016. Yuma Proving Ground Wildlife Biologist. *MFR: Natural Resources Site visit at check dam in Proposed Withdrawal Area*.
- Sturla, D.P, M. Pirkowski, and J. Diamond. 2014. Planning Level Surveys to Determine the Distribution and Nesting Status of Golden Eagles on Yuma Proving Ground in Southwestern Arizona.
- The Maguire Company. 2017. *Economic Impact of Arizona's Principal Military Operations*. Prepared for the Military Affairs Commission.
- Udvardy, M.D. and J. Ferrand, (1994). National Audubon Society field guide to North American birds (2nd ed.). New York, New York: Chanticleer Press, Inc.
- U.S. Army. 2022. *Interim Environmental Baseline Study for the Highway 95 Land Withdrawal*. U.S. Army Garrison Yuma Proving Grounds Environmental Sciences Division.
- U.S. Army Corps of Engineers (USACE). 2010. Site Inspection Report, Laguna Maneuver Area No. 10. La Paz and Yuma Counties, Arizona. US Army Corps of Engineers Southwest IMA Region. Prepared by Parsons. September 2010, as amended.
- USACE. 2015. Final Programmatic Environmental Impact Statement of Activities and Operations Yuma Proving Ground, Arizona. U.S. Army Corps of Engineers, Mobile District April 2015.
- USACE. 2023. "Draft Land Use Report for The U.S. Army Garrison Yuma Proving Ground Highway 95 Withdrawal," U.S. Army Corps of Engineers.
- U.S. Census Bureau. 2022a. Census data 2010, 2020, and 2021. <https://www.census.gov/>,
<https://data.census.gov>, and www.census.gov/quickfacts.

- U.S. Census Bureau. 2022b. American Community Survey 5-year data (2009-2021). November 30, 2022. <https://www.census.gov/data/developers/data-sets/acs-5year.2021.html#list-tab-68BJJ0ERBM2MP6S0R8>.
- U.S. Census Bureau. 2023. How the Census Bureau Measures Poverty. January 30, 2023. <https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html>.
- U.S. Fish and Wildlife Service (USFWS). 1996. *Kofa National Wildlife Refuge & Wilderness and New Water Mountains Wilderness Interagency Management Plan and Environmental Assessment*. October 1996. <https://digitalmedia.fws.gov/digital/collection/document/id/1962/>.
- USFWS. 2021. Environmental Conservation Online System, Monarch Butterfly Species Account. Retrieved from <https://ecos.fws.gov/ecp/species/9743>.
- USFWS. 2023. Information for Planning and Consultation (IPaC) System. Consultation Code: 2023-0019820. <https://ecos.fws.gov/ipac/location/index>. Accessed March 1, 2023.
- Versar, Inc. 2016. *Integrated Cultural Resources Management Plan*. U.S. Army Garrison Yuma Proving Ground. Revisions by Versar, Inc. of Texas for KFS, LLC of Alabama.
- Yuma County Chamber of Commerce. 2022. Local Industry - Yuma County Chamber of Commerce. <https://www.yumachamber.org/local-industry.html>.
- Yuma Proving Ground (YPG). 2001. *Final Range Wide Environmental Impact Statement*. Environmental Sciences Division. Yuma, AZ. Yuma Proving Ground, July 2001.
- YPG. 2008. *Mesquite Bosque Survey of the Cibola and Laguna Regions*. Yuma, AZ. Yuma Proving Ground.
- YPG. 2014. *Programmatic Agreement Among the United States Army Garrison, Yuma Proving Ground, the Arizona State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Operations, Maintenance, and Development of Yuma Proving Ground, Arizona*. Yuma Proving Ground.
- YPG. 2020. *Yuma Proving Ground Standing Operating Procedure for Yuma Test Center Range Operations*. SOP YPY-RO-P-1000. Yuma Proving Ground. June 2020.
- YPG. 2016. *Environmental Assessment for the Implementation of the 2017-2021 ICRMP*, Yuma Proving Ground.
- YPG. 2022. USAYPGR 210-11. Installation Hunting Regulation. Yuma Proving Ground.
- YPG. 2023a. *U.S. Army Garrison Yuma Proving Ground Integrated Natural Resources Management Plan Update: FY 2022-2027*. Yuma Proving Ground.
- Zylstra, E.R. and R.J. Steidl. 2008. "Habitat use by Sonoran Desert tortoises." *Journal of Wildlife Management* 73(5):747-754.