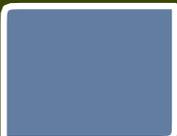
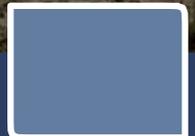


FINAL
Land Use Report
— for the —
Barry M. Goldwater Range
Gila Bend Addition

Air Force Civil Engineering Center
and
56 Range Management Office, Luke Air Force Base



12 October 2020

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Table of Contents

Acronyms and Abbreviations	v
1 Introduction.....	1
1.1 Purpose.....	1
1.2 Scope of Work	1
1.3 Regulatory Framework	2
2 Purpose of the Proposed Withdrawal	4
3 Lands Involved.....	5
3.1 Legal Description.....	5
4 Landscape Setting.....	5
5 Present Land Users.....	6
5.1 Livestock Permittees	6
5.2 Recreationists	7
6 Resource Uses and Resource Values	7
6.1 Air Resources.....	7
6.2 Cultural and Heritage Resources.....	8
6.3 Hazardous Materials and Public Safety	8
6.4 Lands and Realty, including Utilities.....	8
6.5 Livestock Grazing	8
6.6 Mineral Resources	9
6.7 Recreation Resources.....	9
6.8 Soil Resources.....	9
6.9 Travel Management	10
6.10 Vegetation Resources.....	10
6.11 Visual Resources.....	11
6.12 Water Resources	11
6.13 Wildland Fire Management	11
6.14 Wildlife Resources.....	11
7 Provisions for Future Land Use.....	12
8 Economic Analysis	13
8.1 Livestock Grazing	13
8.2 Recreation	13
8.3 Natural and Cultural Resource Conservation and Management	13
8.4 Public Utilities	14
8.5 Mineral Resources	14

9 Conclusion 14
10 References..... 16

Figure

1 Proposed Gila Bend Addition to the BMGR East 3

Acronyms and Abbreviations

56 RMO	56 Range Management Office, Luke Air Force Base
AFAF	Air Force Auxiliary Airfield
AFCEC	Air Force Civil Engineering Center
AUM	Animal Unit Month
BLM	Bureau of Land Management
BMGR	Barry M. Goldwater Range
CFR	Code of Federal Regulations
DoD	U.S. Department of Defense
ICRMP	Integrated Cultural Resources Management Plan
INRMP	Integrated Natural Resources Management Plan
LEIS	Legislative Environmental Impact Statement
MLWA	Military Lands Withdrawal Act
P.L.	Public Law
SDNM	Sonoran Desert National Monument
SECAF	Secretary of the Air Force
SECNAV	Secretary of the Navy
U.S.C.	United States Code

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1 Introduction

The Barry M. Goldwater Range (BMGR) encompasses approximately 1,743,677 acres (about 2,723 square miles) of which about 1,659,622 acres is federal public land that is withdrawn and reserved for use by the Secretaries of the Air Force (SECAF) and Navy (SECNAV) for training tactical air combat forces and other defense-related purposes. The remaining area of the BMGR includes roughly 84,053 additional acres of former private land, Arizona State Trust land that was fee-acquired by the U.S. Air Force (USAF) and about 1.5 acres of non-federally owned land. The current land withdrawal and reservation for the BMGR is provided by the Military Lands Withdrawal Act (MLWA) of 1999 (Public Law [P.L.] 106—65) and expires in October 2024. The SECAF and SECNAV have filed a land withdrawal application and are preparing a Legislative Environmental Impact Statement (LEIS) to continue military use of the BMGR beyond the MLWA’s expiration date.

The BMGR is divided into eastern and western segments, referred to as BMGR East and BMGR West, which are administered and principally used, respectively, by USAF and the U.S. Marine Corps. Concurrent with this application to extend the BMGR land withdrawal, the SECAF has submitted an application to expand BMGR East by 2,365.89 acres (Figure 1). This area is referred to in the proposal as the Gila Bend Addition. This proposed expansion area is located east and southeast of the Gila Bend Air Force Auxiliary Airfield (AFAF). The potential environmental impacts of the withdrawal of the proposed expansion area are also being addressed in the LEIS.

1.1 Purpose

This report supports compliance with federal requirements governing land withdrawals. In accordance with the MLWA of 1999 (P.L. 106-65 §3031[e][2][B]), the land withdrawal regulations at 43 CFR §2310.3-2(b)(1) apply to the proposed Gila Bend Addition. Any anticipated land use requirements to support operation of the proposed expansion of the BMGR must be reported in the land withdrawal application. Accordingly, SECAF is providing this *Land Use Report* to support processing of the application for the proposed withdrawal of the Gila Bend Addition.

This report’s conclusions are intended solely for those entities involved in the evaluation of the land use requirements of the Gila Bend Addition as part of the land withdrawal application process. No other conclusions or purposes, either expressed or implied, are intended.

1.2 Scope of Work

In accordance with 43 CFR § 2310.3 2(b)(1), this report identifies the present users of the Gila Bend Addition. The report explains how present users would be affected by the proposed expansion of the BMGR East into this area and analyzes the manner in which existing and potential resource uses are incompatible with or conflict with the proposed use of the lands and resources that would be affected by the requested action. As defined in 43 CFR § 2300.0-5, resource use means a land use having as its primary objective the preservation, conservation, enhancement or development of the following resources:

- Any renewable or nonrenewable natural resource indigenous to a particular land area, including, but not limited to, mineral, timber, forage, water, fish or wildlife resources or,
- Any resource value associated with a particular land area, including, but not limited to, watershed, power, scenic, wilderness, clean air or recreational values.

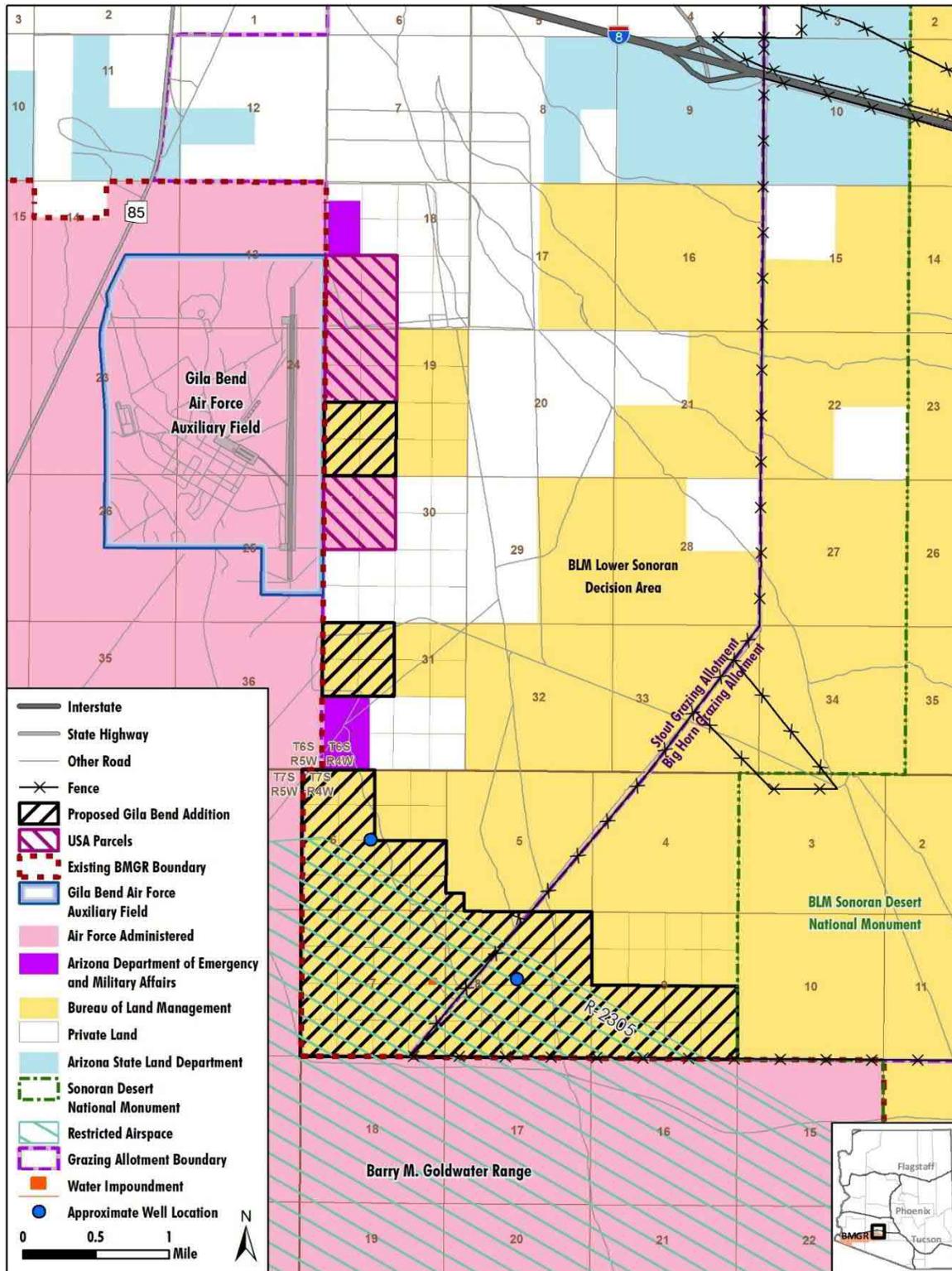
This report also specifies the provisions that would be made for, and an economic analysis of, the continuation, alteration, or termination of existing land uses.

1.3 Regulatory Framework

SECAF and SECNAV have determined that there is a continuing military need for the BMGR beyond the current withdrawal's expiration date and are preparing the necessary documentation for an extension. Concurrently, SECAF has also identified a need to expand the BMGR East by roughly 2,366 acres east and southeast of the Gila Bend AFAF to support flying, security, safety, and other operations at the auxiliary airfield and ensure the full operability of the restricted airspace (R-2305 restricted area) overlying an area of public land that is contiguous to BMGR East (Figure 1). SECAF submitted a land withdrawal application for expanding the BMGR East on 22 April 2019 to the Bureau of Land Management (BLM). The regulatory measures being taken to secure an extension of the BMGR land withdrawal and to expand the BMGR East are in accordance with the applicable guidance provided by the MLWA of 1999 (P.L. 106—65 § 3031[e]), the Defense Withdrawal Act of 1958 (also referred to as the Engle Act, P.L. 85-337, 43 United States Code [U.S.C.] 155-158), and the procedures for processing federal land withdrawals (43 CFR 2310).

The proposed Gila Bend Addition is comprised entirely of federal public land administered by the BLM Phoenix District, Lower Sonoran Field Office. BLM manages this public land for multiple uses in accordance with the Federal Land Policy and Management Act of 1976 (P. L. 94-579). The *Lower Sonoran Decision Area Record of Decision and Approved Resource Management Plan* (Lower Sonoran Resource Management Plan) (BLM 2012a) provides the management guidance and direction for the public land associated with the Gila Bend Addition. The *Sonoran Desert National Monument Record of Decision and Approved Resource Management Plan* (Sonoran Desert Resource Management Plan) (BLM 2012b) applies to the management of BLM-administered land within the Sonoran Desert National Monument (SDNM), which is adjacent to the eastern boundary of the southernmost parcel of the proposed Gila Bend Addition. The multiple land uses addressed in these Resource Management Plans include, but are not limited to mineral and energy development, livestock grazing, off-highway vehicle travel on designated routes, recreation, visual resources and protection of wilderness characteristics.

Figure 1: Proposed Gila Bend Addition to the BMGR East



2 Purpose of the Proposed Withdrawal

The purposes of the proposed Gila Bend Addition are to enhance the security and safety of flight operations at Gila Bend AFAF and to ensure the full operability of the R-2305 restricted area.

The proposed withdrawal and reservation of the public land immediately east of Gila Bend AFAF is needed to close a gap in USAF control of an area that is significant to the safety and sustainability of flight operations at the airfield as well as the security of the installation. The common boundary of Gila Bend AFAF and BMGR East is located 1,000 feet to the east of the north-south runway of the airfield (Figure 1). Criteria provided by federal regulations to ensure the safety of flight at U.S. Department of Defense (DoD) airports (14 CFR § 77.21) specify that no ground-based obstructions penetrate a transitional surface that slopes outward and upward at right angles to the runway centerline at a seven-to-one ratio. As applied to Gila Bend AFAF, this slope criteria translates to a horizontal distance from the runway that extends to about 850 feet east of the airfield/BMGR East boundary.

USAF holds administrative jurisdiction for about 462 acres of land, in aggregate, along the eastern side of the airfield/BMGR East boundary that encompass more than two thirds of the area underlying the transitional surface extending eastward of this boundary (Figure 1). Although these parcels are currently outside of Gila Bend AFAF and BMGR East, they provide USAF with the jurisdiction needed to keep the lateral runway environment clear of impediments, including vertical obstructions that could penetrate the overhead transitional surface. The USAF parcels extend about 1,800 feet east of the transitional surface, which is beneficial for maintaining adequate security and protection from future land uses that could encroach on the noise or safety environments of the airfield.

The withdrawal and reservation of the southwest quarter of Section 19, Township 6 South, Range 4 West as an addition to BMGR East would close the gap in USAF jurisdiction for the land on the eastern side of the runway at Gila Bend AFAF. This parcel underlies the runway transitional surface and provides security and encroachment control. The withdrawal and reservation of public land in the northwest quarter of Section 31, Township 6 South, Range 4 West, located about 2,640 feet south and 1,000 feet east of the southern end of the runway, would provide further land use control underlying approaches to, and departures from, Gila Bend AFAF.

The addition of land south-southeast of the Gila Bend AFAF is needed to provide USAF with positive control of an estimated 1,398 acres of land directly underlying the R-2305 restricted area (Figure 1). Positive control of surface access and land use underlying the R-2305 airspace would allow the airspace to be more fully incorporated into military operations at the BMGR East. This would increase the overall training value of the BMGR lands that are currently withdrawn. The proposed Gila Bend Addition would increase the area of the BMGR by less than 0.14 percent, contributing to the safe and effective operation of the range and its capacity to support national security objectives. Although the Gila Bend Addition is needed to provide the specific aforementioned benefits to the auxiliary field and R-2305 airspace, the proposed expansion area would be withdrawn and reserved for the same broad purposes as the rest of the BMGR.

3 Lands Involved

3.1 Legal Description

The legal description for the Gila Bend Addition is taken from the *Land Surveyor Report* (Kelser and Davis 2019) as follows:

Gila and Salt River Meridian, Arizona

- T. 6 S., R. 4 W.,
 - sec. 19, Lots 3 and 4, E1/2 SW1/4;
 - sec. 31, Lots 1 and 2, E1/2 NW1/4.
- T. 7 S., R. 4 W.,
 - sec. 5 SW1/4 SW1/4 SW1/4;
 - sec. 6 Lots 3 thru 7, SE1/4 NW1/4, E1/2 SW1/4, SE1/4;
 - sec. 7 Lots 1 thru 4, NE1/4, E1/2 NW1/4, E1/2 SW1/4, SE1/4;
 - sec. 8;
 - sec. 9 SW1/4, SE1/4.

Collectively, these land parcels contain 2,365.89 acres.

4 Landscape Setting

The proposed Gila Bend Addition is located within the southern portion of the Basin and Range physiographic province, a regional landscape characterized by long, narrow mountain ranges separated by broad alluvial valleys. This area is located within the Lower Colorado River Valley Subdivision of the Sonoran Desert Ecoregion (Brown 1994). The climate is extremely arid, with high temperatures averaging 109 degrees Fahrenheit in July to a low of 40 degrees Fahrenheit in December. With approximately 7 inches of annual precipitation, surface water is extremely limited (U.S. Climate Data 2018).

The proposed expansion area is located within a shallow sloping alluvial plain with minimal topographic relief. The predominant vegetation community consists of Sonoran Desert creosote bush bursage desert scrub dissected by ephemeral stream washes that usually flow during summer monsoon events (Villarreal et al. 2011). Most washes support xeroriparian scrub vegetation while the larger drainages support more complex and layered tree species. The landscape generally drains to the north-northwest within the larger Gila River watershed.

The physiography and climate contribute to the land surface being relatively undeveloped, exhibiting natural environmental conditions and vegetation densities similar to adjoining lands with expanses of creosote bush-bursage desert scrub. A constructed livestock water impoundment, dirt roads, fencing, and off-road vehicle tracks provide the most visible signs of present-day human land use.

5 Present Land Users

Based on a review of the Lower Sonoran Resource Management Plan (BLM 2012a) and field observations from surveys conducted for other technical reports, the two types of land users identified for the proposed Gila Bend Addition include livestock grazing permittees and recreationists.

5.1 Livestock Permittees

The proposed expansion area is available for livestock grazing. There are two grazing allotments (Figure 1) though no grazing has occurred since 2008 (BLM no date[a]; no date[b]). The Stout (00118) and Big Horn (03009) allotments were established under Section 3 of the Taylor Grazing Act of 1934 (43 U.S.C. 315 - 315r) and have been administered by BLM since the BLM was established in 1946 (BLM no date[a]; no date[b]). Both allotments have changed hands since their initial establishment and are currently held by residents of the Gila Bend area (BLM no date[a]; no date[b]).

The Stout allotment is roughly 13,600 acres (BLM no date[b]) with approximately 1,516 acres overlapping the Gila Bend Addition. This allotment was last grazed in 1989 with a total use of 185 animal unit months (AUMs) that year.¹ The Stout allotment has an ephemeral classification (BLM 2012). As such, BLM will only authorize livestock grazing when acceptable soil moisture, forage, water and monitoring conditions are met. In many years, particularly during times of drought, ephemeral allotments do not produce enough forage to support livestock and so are not authorized for grazing. For 2020, however, ephemeral allotments are being authorized for grazing in response to higher amounts of precipitation (BLM GIS data). The number of AUMs on an ephemeral allotment may vary each year as forage availability changes annually with climate conditions. The Stout allotment is considered active; its 10-year BLM permit is scheduled to expire in 2029. The allotment's perimeter is entirely fenced (BLM no date[a]) and the land area includes a developed surface water impoundment (AFCEC and 56 RMO 2018a; AFCEC and 56 RMO 2019a; Whitbeck, personal communication 2020c).

At 169,300 acres, the Big Horn allotment is considerably bigger than the Stout allotment and is classified as perennial (BLM 2012a). Perennial rangelands are defined as those that consistently produce adequate perennial forage to support a year-round livestock operation (BLM 2011). Perennial allotments require the permittee to make substantial improvements to accommodate livestock unless those improvements are waived by the BLM conservation officer to help soil and plants recover. The Big Horn allotment was last grazed in 2008 with a total use of 1,436 AUMs that year (BLM no date[a]). The 10-year permit for the Big Horn allotment expired in 2009 and the permit is considered inactive. Most of the Big Horn allotment is north of Interstate 8 and within SDNM (Figure 1). In accordance with Presidential Proclamation 7397, livestock grazing was permanently terminated within SDNM south of Interstate 8 in 2009, when the last active allotment pertaining to that area expired (BLM 2012b).

In accordance with the Lower Sonoran Resource Management Plan (BLM 2012a), the portion of the Big Horn allotment south of Interstate 8 and *outside* of SDNM is available for livestock grazing. However, the 853-acre portion of the Big Horn allotment that is within the proposed expansion area lacks fencing and a developed water source outside of SDNM to support cattle grazing (BLM range improvement records and GIS data). Therefore, this area cannot be grazed by livestock until water and fencing infrastructure are installed to support grazing and prevent livestock from drifting onto the SDNM (Whitbeck, personal

¹ The AUM is used to determine the carrying capacity of the land for grazing. An AUM is the amount of air-dry forage a 1,000-pound cow and her unweaned calf will consume in one month (Stam et al. 2018)

communication 2020a, 2020d). Livestock grazing *within* SDNM is on hold due to current litigation; the Record of Decision is due by 30 September 2020 (BLM no date[a]; no date[b]). The Big Horn allotment's perimeter is fenced; BLM has been removing pasture fencing in SDNM in the vicinity of the proposed Gila Bend Addition, but this activity would not affect the boundary fencing for SDNM (Whitbeck, personal communication 2020c).

5.2 Recreationists

Several unmarked and unnamed roads cross the proposed expansion area, providing access for recreationists (AFCEC and 56 RMO 2018a). BLM-administered public lands surrounding and including the proposed Gila Bend Addition west of the SDNM boundary are undesignated with respect to recreation resources and values. These lands are not part of a designated Recreation Management Area/Zone in the Lower Sonoran Resource Management Plan (BLM 2012a). As such, they are managed for multiple uses including recreation. As discussed below, tracks from off-highway vehicles are visible in some locations within the proposed expansion area. The association of these tracks with past recreational use has not been determined and the extent to which the proposed expansion area is used for recreation is not known. No distinguishing topographic, geologic, or cultural resource features in the proposed Gila Bend Addition are known attraction sites for recreation. The ephemeral water impoundment may serve as an attractant for seasonal bird watchers, but it is not unique in a larger landscape context.

6 Resource Uses and Resource Values

The existing resource uses and values of the public lands comprising the proposed Gila Bend Addition are summarized from goals in the management decisions for the Lower Sonoran Resource Management Plan (BLM 2012a). Resource uses and values that are discussed in BLM's Lower Sonoran Resource Management Plan, but not present in or relevant to the proposed expansion area, are omitted from the discussion in this section and include cave resources, paleontological resources, wild horse and burro management, wilderness characteristics, Areas of Critical Environmental Concern, National Byways, National Trails, and Resource Conservation Areas. The goals identified in this discussion are specific to the Lower Sonoran Decision Area, which encompasses the proposed Gila Bend Addition.

Where noted, USAF has prepared resource-specific technical reports to provide BLM with site-specific details on certain resource uses and resource values to support its withdrawal application.

6.1 Air Resources

BLM manages airborne emissions to protect, maintain and improve air quality associated with authorized uses and activities on public lands (BLM 2012a). Mitigation measures are applied for uses and activities within and near adjoining communities, wilderness areas, and large particulate matter (i.e., dust) non-attainment and maintenance areas, especially concerning unpaved roads traversing public lands. The unpaved, bladed roads and established vehicle-use trails identified in the *Roadless Area Analysis Report* (AFCEC and 56 RMO 2018a) are assumed to be potential sources of air quality degradation within the proposed expansion area, as is the case with other public lands in the arid Southwest.

6.2 Cultural and Heritage Resources

BLM manages cultural resources to:

- Identify, preserve and protect cultural resources and ensure they are available for appropriate uses for present and future generations
- Reduce threats, reduce or prevent damage, and resolve potential conflicts from naturally occurring or unauthorized human-caused damage or deteriorations
- Manage assemblages of sites as cultural landscapes.

The proposed expansion area is not part of a designated Cultural Resource Allocation Zone identified in the Lower Sonoran Resource Management Plan (BLM 2012a).

USAF conducted a 303-acre archaeological field survey and prepared a technical report on cultural and archaeological resources for the Gila Bend Addition in support of its withdrawal application (AFCEC and 56 RMO 2018f). The report concludes that the proposed withdrawal of the expansion area would not affect cultural resources and no further cultural resource work is recommended.

6.3 Hazardous Materials and Public Safety

BLM manages public lands to protect public health and safety, which includes minimizing or eliminating the potential for intentional or accidental releases of hazardous materials or wastes and solid waste (BLM 2012a).

The *Contamination Analysis Report* (AFCEC and 56 RMO 2018b) provides a review of historic records and aerial photos, database searches, and field observations. No known or potential areas of hazardous materials concern were identified in the proposed expansion area.

6.4 Lands and Realty, including Utilities

BLM manages lands and realty actions to support public needs, meet natural resource management objectives, and promote agency efficiency. This is done, in part, by designating utility corridors for transmission lines, gas pipelines and other linear utilities, solar energy zones for renewable energy projects and Land Use Authorization Exclusion/Avoidance areas. No BLM-designated areas to support, exclude, or avoid the siting of utilities are within the proposed expansion area (BLM 2012a).

6.5 Livestock Grazing

BLM manages livestock grazing to provide for multiple uses while maintaining healthy ecosystems (BLM 2012a). Existing water developments are evaluated and modified, as necessary, to provide the maximum benefit and minimum impact to priority wildlife and special status species. As discussed in Section 5.1, BLM administers the active Stout and inactive Big Horn grazing allotments in the vicinity of the proposed expansion area. Both allotments are fenced (Whitbeck, personal communication 2020b, 2020c); however, Jacobs' field staff observed numerous breaks in the fenced area, including open gate areas and downed fencing when surveying for vegetation characteristics. As discussed in Section 6.10, one ephemeral water impoundment is located within the Stout allotment and may have originally been constructed for livestock watering. Today the water impoundment is recognized as a unique habitat feature, supporting ephemeral aquatic and riparian habitat for 26 wildlife species (AFCEC and 56 RMO 2019a). During field visits, surface water was observed in the impoundment during the summer monsoon

season and to a lesser degree and with shorter duration following winter rains (AFCEC and 56 RMO 2019a). The Big Horn allotment in the vicinity of the proposed Gila Bend Addition lacks a developed water source and will likely not be grazed again as long as the SDNM designation exists (Whitbeck, personal communication 2020d).

6.6 Mineral Resources

BLM manages public lands to provide opportunities for exploration and development of energy and mineral resources (BLM 2012a). Lands that are proposed for withdrawal, including the Gila Bend Addition, are temporarily segregated from mining and mineral leasing while BLM processes the withdrawal application. USAF prepared a *Mineral Resource Assessment* in support of its withdrawal application to expand the BMGR East (AFCEC and 56 RMO 2018c). One historic speculative mining operation, Peoria Seven, was identified through records research near the southeastern border of the proposed Gila Bend Addition. This long-inactive site has been reclaimed (Arizona Geological Survey 1999). The mining operator claimed to have recovered gold and platinum group metals; however, this claim was not verified. No other mine claims, mining leases, mineral material sale contracts, unpatented mining claims, mill sites, or other valid existing rights were identified. The *Mineral Resource Assessment* also identifies mineral resources with a high occurrence potential in the proposed expansion area, including sand and gravel, evaporite deposits of gypsum and celestite (a source of strontium) (AFCEC and 56 RMO 2018c). Uranium was identified as a mineral with moderate potential to occur. Withdrawing the proposed Gila Bend Addition and reserving it for military purposes would preclude mineral resource development during the authorized withdrawal period. However, the mineral deposits identified in the assessment are abundantly available on other public lands.

6.7 Recreation Resources

Some BLM-designated areas in the Lower Sonoran Decision Area are managed to provide quality recreation opportunities and experiences derived from public land resource values (BLM 2012a). The designated areas are created in response to visitor demand and their recreational values are recognized as the primary resource management consideration above all others. The proposed Gila Bend Addition is undesignated with respect to recreation resources or values. The site is not part of a designated Recreation Management Area/Zone in the Lower Sonoran Resource Management Plan (BLM 2012a).

The *Roadless Area Analysis Report* prepared in support of the proposed Gila Bend Addition withdrawal application (AFCEC and 56 RMO 2018a) notes the presence of several unpaved, bladed roads and established vehicle-use trails based on BLM road inventory and aerial imagery (©2017 Google). Off-route vehicle tracks were also visible in many locations. The report concludes that the area fails to exhibit roadless area characteristics that would qualify it as eligible to be managed to maintain wilderness characteristics under BLM criteria (BLM 2012c). The *Roadless Area Analysis Report* also concludes that the area lacks any other geographical or other features that would otherwise allow it to provide outstanding opportunities for solitude or primitive and unconfined types of recreation.

6.8 Soil Resources

BLM manages soil resources to ensure watersheds are functioning properly and consistent with Land Health Standards (BLM 2012a). Sensitive soils are maintained or improved to avoid accelerated erosion.

The *Biological Resources Vegetation Report* (AFCEC and 56 RMO 2019b) includes a discussion and map of the soil complexes found in the proposed Gila Bend Addition. The soil complexes are comprised of Cipriano, Gunsight, Carrizo, and Rillito soil series. These soil series are widely distributed throughout the Sonoran Desert. Soil crust disturbance from large grazing animals, off-road vehicle use, and other land uses was observed to be localized. The *Contamination Analysis Report* (AFCEC and 56 RMO 2018b) also contains information related to soil resources.

6.9 Travel Management

Concerning off-highway vehicle travel, BLM classifies public land as open, closed or limited to designated routes in accordance with 43 CFR 8342.I (BLM 2012a). The Lower Sonoran Decision Area includes designated roads, primitive roads and trails on public lands surrounding and including the proposed Gila Bend Addition. These roads and trails have been inventoried but BLM is not currently working on a travel management plan (Whitbeck, personal communication 2020a).

The *Roadless Area Analysis Report* (AFCEC and 56 RMO 2018a) notes the presence of several unpaved, bladed roads, established vehicle-use trails, and off-route vehicle tracks. The association of these vehicle-created features with recreation, livestock management or other resource values was not determined. The travel routes providing direct public access to and from the SDNM are east of the Gila Bend Addition and do not traverse the Gila Bend Addition.

6.10 Vegetation Resources

BLM manages native vegetation for natural diversity and abundance, and to occur as expected for landform and ecological site; for protection from over-collecting and other uses; and to occur in natural abundance and distribution (BLM 2012a). Populations of endangered, threatened, and special status plants are managed for stability or for increase. Integrated management is used to prevent the introduction of noxious and undesirable plants where they do not occur and to control them to a small percentage of the vegetative community so that they do not affect natural ecological processes where they do occur. The proposed Gila Bend Addition vegetation community is predominantly creosote bush bursage. BLM manages the natural diversity and abundance of this native vegetation to be shrub-dominated with desert scrub species, cacti and annual forbs and grasses (BLM 2012a).

The *Biological Resources Vegetation Report* (AFCEC and 56 RMO 2019b) delineates four primary vegetation associations/habitat types in the proposed Gila Bend Addition based on dominant perennial plant species associations and physical landscape features. The plant communities are generally referred to as “Broad Desert Wash,” “Narrow Desert Wash,” “Creosote Bush Flat,” and isolated stands of “Mesquite Woodland.” Creosote bush flats occupy more than 90 percent of the proposed expansion area. Generally, plant species diversity is low with 57 plant species identified during field surveys conducted for the report. Field surveys found limited evidence of non-native or invasive species. Non-native species included, but were not limited to, buffelgrass (*Pennisetum ciliare*) in the north, and non-native winter annuals like Sahara mustard (*Brassica tournefortii*) and canary grass in the water impoundment.

The *Unique Habitats Report* (AFCEC and 56 RMO 2019a) identifies one unique habitat feature in the proposed expansion area. A human-constructed surface water impoundment consisting of an earthen dike that impounds and retains water from storm events particularly during the summer monsoon season, and provides ephemeral aquatic and riparian vegetation habitats for 26 identified wildlife species. The site is less than two acres including the tank and surrounding mesquite bosque habitat.

6.11 Visual Resources

The BLM manages visual resources to maintain scenic quality, natural landscapes, undisturbed views and other high quality visual resources (BLM 2012a). Additionally, night sky conditions are maintained. The public land comprising the proposed Gila Bend Addition are designated Class III in accordance with the BLM's Visual Resource Management Manual 8400 (BLM 1984). Class III areas are managed to retain the existing character of the landscape, allowing for a moderate level of change. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the predominant natural features of the characteristic landscape (BLM 1986).

6.12 Water Resources

BLM manages water resources to ensure the physical and legal availability of water in sufficient quantity and quality to meet the needs of the Lower Sonoran Decision Area. Additionally, surface water is managed to meet appropriate state water quality standards or have state-approved plans for water quality improvement.

Technical reports with information pertaining to wetlands and floodplains have been prepared in support of the withdrawal application to expand the BMGR East (AFCEC and 56 RMO 2020; AFCEC 2020). A water resource report will be included in the BLM case file. In the *Contamination Analysis Report*, two water wells are identified in the Arizona Well Registration Database as present in the proposed expansion area but there is no information in the database on the current operational status or depth of the wells or depth to groundwater (AFCEC and 56 RMO 2018b).

The Wetlands and Floodplains Statement (AFCEC and 56 RMO 2020) and Unique Habitats Report (AFCEC and 56 RMO 2019a) address the presence of an existing earthen dike impoundment. The site conditions do not qualify the impoundment as a designated wetland or as a Special Aquatic Site per Section 404 of the Clean Water Act (33 U.S.C. §1344) but the impoundment is recognized for its plant and wildlife habitat values.

6.13 Wildland Fire Management

BLM conducts wildland fire management to ensure fire fighter and public safety is the highest priority in every fire or fuels management activity (BLM 2012a). Wildland fuels are managed to protect the Wildland Urban Interface and meet resource management objectives. Additionally, the agency limits the extent of wildfires and the impact of wildland fire suppression efforts on wildlife, plant communities and natural and cultural features. Wildland fire and fuel management strategies on public lands, including the proposed expansion area, are considered within the context of landscape-scale resource conditions and interagency and community interactions and cooperation. A 2020 Memorandum of Understanding between BLM, Phoenix District Office and USAF (BLM and USAF 2020), establishes guidelines for cooperation in the response and assistance of wildland fire emergencies on the BMGR East. The Memorandum would apply to the Gila Bend Addition if the proposed land withdrawal is approved.

6.14 Wildlife Resources

BLM has designated Wildlife Habitat Management Areas for special status species within the Lower Sonoran Decision Area; however, no proposed Gila Bend Addition parcels are with these Wildlife Habitat Management Areas designations (BLM 2012a).

Several technical reports pertaining to wildlife resources were prepared in support of the Gila Bend Addition withdrawal application. Some special status species may be using the proposed expansion area on a limited basis but are likely passing through as higher quality wildlife habitats exist in other locations (AFCEC and 56 RMO 2018d). An ephemeral water impoundment and mesquite bosque provide “increased vegetation, water, and associated insectivorous and small animal prey bases when utilizing resources for nesting/bedding down, foraging, and temperature regulation (cooling in the summer heat and insulating warmth in the colder winter temperatures)” (AFCEC and 56 RMO 2019a). The impoundment occupies a small area but provides cover and foraging habitat for many wildlife species. The unique habitat offers wildlife a higher abundance of forage and prey than the surrounding area. Ephemeral water retention can provide breeding habitat for amphibians that require water for one or more life stages in the harsh desert environment.

7 Provisions for Future Land Use

USAF proposes to use the Gila Bend Addition to control surface access and land use in two specific areas (Figure 1):

- The withdrawn public land directly east and immediately southeast of Gila Bend AFAF would be used, in conjunction with contiguous USAF parcels and Arizona Department of Emergency and Military Affairs land, to:
 - Prevent unauthorized surface access to the Gila Bend AFAF, including the runway area
 - Prevent development of vertical obstructions that would penetrate the transitional surface associated with the runway
 - Control land use to prevent encroachment within the runway clear zones, transitional surfaces, and high noise zones
- The withdrawn public land underlying the Restricted 2305 Airspace would be controlled to be consistent with the use of that airspace to support military training and test activities.

Surface access would not be allowed within the withdrawn Gila Bend Addition. Access would be controlled through new entry control signs, and patrols by range security officers. There are currently no plans to erect new fencing, gates, or cattle guards to control access to the proposed withdrawal areas. Potential future requirements for these measures would be considered if the Gila Bend Addition is incorporated into BMGR East and if warranted by emerging security conditions.

The 1999 MLWA provided for continued livestock grazing within the BMGR in accordance with 20 U.S.C. 267 and at the discretion of the Secretaries of the Navy and Air Force. Similarly, the active grazing allotment (Stout) would be allowed consistent with existing BLM regulations until the current permits expire. BLM would administer the grazing allotment until the permit expiration date. If fencing is proposed within the expansion area, the proposal would trigger further assessment in accordance with the National Environmental Policy Act and other applicable laws.

Surface access to the Gila Bend Addition would not be allowed and roads within the addition would be closed to the public; they do not provide access to the SDNM or other areas.

The natural and cultural resources associated with the proposed expansion area would be managed by USAF in accordance with the Integrated Natural Resources Management Plan (INRMP) (Colorado State

University 2018) and Integrated Cultural Resources Management Plan (ICRMP) for the BMGR (56 RMO 2020, MCAS Yuma Range Management Department 2019).

Withdrawal and reservation of the proposed Gila Bend Addition would preclude appropriations by the public under the general land laws, including the mining laws and the mineral leasing and geothermal leasing laws for the duration of the withdrawal.

The proposed Gila Bend Addition would not require a change in water use or water rights, or the construction of water-related infrastructure.

The Gila Bend Addition would continue to be managed by USAF for its inherent resource values as part of the integrated natural resource management planning process established for the BMGR.

8 Economic Analysis

8.1 Livestock Grazing

The proposed withdrawal would likely have no to minimal economic impact on the two livestock grazing allotments that overlap the proposed expansion area.

The Big Horn allotment is a perennial allotment that has not been grazed since 2008 and has expired. Livestock grazing is not likely to reoccur in the inactive Big Horn allotment within the Gila Bend Addition due to the lack of a developed water source outside of the SDNM (Whitbeck, personal communication 2020d). As such, there would be no economic impact to the Big Horn allotment (Figure 1).

The Stout allotment is an ephemeral allotment that was last grazed in 1989 with a total of 185 AUMs. The permit for this allotment is active. Range forage conditions are currently suitable for grazing (Whitbeck, personal communication 2020a). The allotment has perimeter fencing and a developed surface water impoundment. If the land withdrawal is approved, grazing would be allowed to continue under BLM administration until the permit expires in 2029.

BLM currently charges perennial allotment permittees \$1.35 per AUM (BLM 2019). Perennial allotment permittees only pay fees when grazing occurs. No fees are charged for ephemeral allotments. Per 43 U.S.C. 315q, persons with grazing permits that have been or will be canceled because of national defense purposes of the public domain shall be paid a fair and reasonable amount for the loss of use.

8.2 Recreation

The proposed withdrawal would have no economic impact on recreational use within the expansion area. Field studies conducted as part of the technical reports prepared for the BLM case file suggest that existing recreational use is minimal in this area and there is an abundance of public land available for free recreational use surrounding the parcels proposed for withdrawal.

8.3 Natural and Cultural Resource Conservation and Management

The proposed land use modifications would have no economic impact on the natural and cultural resources and resource values described in Section 7 and in the LEIS. USAF would manage the proposed expansion area in accordance with the BMGR INRMP (Colorado State University 2018) and ICRMP (56 RMO 2020, MCAS Yuma Range Management Department 2019).

8.4 Public Utilities

Some public lands administered by the Lower Sonoran Field Office carry designations to direct future utility corridors and renewable energy development into specific geographic areas. The proposed expansion area has not been designated as a priority location for utility-related development. Withdrawal and reservation of the proposed Gila Bend Addition would likely preclude future utility and energy developments for the duration of the withdrawal. No economic impacts are foreseen because the proposed expansion area is proximate to other lands in the region that have been evaluated and designated for future utility proposals.

Under current policy, the DoD would have authority to develop energy facilities on the BMGR, including the Gila Bend Addition, in accordance with the agency's 2016 *Guidance on Development of Energy Projects* (SECNAV 2016). This DoD guidance applies to development of renewable or other energy projects that provide energy security in support of the DoD's mission. Pursuant to Title 10 U.S.C. Section 2922a, *Contracts for Energy or Fuel for Military Installations*, the DoD may pursue development of any type of energy production facility with government or third-party financing. The energy facility may have an operation contract of up to 30 years, including the time required to remove or demolish.

At this time, USAF has no foreseeable plans to develop energy resources on the proposed Gila Bend Addition. Therefore, in the long term, the potential future utility and energy development of the area is unlikely to be impacted, if the land withdrawal is approved and later terminated.

8.5 Mineral Resources

Withdrawal and reservation of the proposed Gila Bend Addition would preclude appropriations under the general land laws, including the mining laws and the mineral leasing and geothermal leasing laws for the duration of the withdrawal. No mineral deposits were identified in the *Mineral Resource Assessment* that are not abundantly available on other public lands (AFCEC and 56 RMO 2018c). Therefore, closing the withdrawal area to operations under the federal mining laws would be unlikely to have an economic impact, as similar mineral deposits are available for mining in the region. Should the proposed withdrawal of the Gila Bend Addition be approved and later terminated, the affected public lands would likely revert back to BLM administration. Once the Secretary of the Department of the Interior accepts the relinquished lands and issues an appropriate order opening them to the renewed operation of general land laws, including the mining laws and the mineral leasing and geothermal leasing laws, the area would again be open to appropriation and entry for mining or mineral leasing. At this time, USAF has no foreseeable land use or development plans for the proposed Gila Bend Addition that would impact potential future mineral resource development.

9 Conclusion

USAF is providing this *Land Use Report* to support BLM's processing of the application for the proposed withdrawal of the 2,365.89-acre Gila Bend Addition, as an expansion of BMGR East. The proposed addition would provide sufficient space to better secure the Gila Bend AFAF runway, enhance flight safety in the runway environment, ensure the full operability of the R-2305 restricted area, and prevent encroachment on Gila Bend AFAF or BMGR East operations by incompatible land use.

The land surface is relatively undeveloped, exhibiting natural environmental conditions and vegetation densities similar to adjoining lands with expanses of creosote bush-bursage desert scrub. A

constructed ephemeral livestock water impoundment, dirt roads, fencing and off-road vehicle tracks provide the most visible signs of human land use. Land users include livestock grazing permittees and recreationists. The two grazing allotments, Stout (00118) and Big Horn (03009), were established under Section 3 of the Taylor Grazing Act of 1934 (43 U.S.C. 315 - 315r) and have been administered by BLM since 1946. Grazing has not occurred on the Gila Bend Addition since 2008 and only the Stout ephemeral allotment permit is active. Infrequent, dispersed recreational use is assumed to occur but has not been verified. The area is not known to be either a high- or destination-use recreation area. The multiple resource uses and resource values associated with the proposed expansion area are reported from goals in the management decisions for the *Lower Sonoran Resource Management Plan* (BLM 2012a).

If the proposed withdrawal of the Gila Bend Addition is approved, surface access would not be allowed. Access would be controlled through new entry control signs, and patrols by range security officers. USAF currently has no plans to erect new fencing, gates, or cattle guards to control access to the proposed withdrawal areas. Potential future requirements for these measures would be considered if the Gila Bend Addition is incorporated into BMGR East and if warranted by emerging security conditions.

No changes are currently proposed for the one active grazing allotment through the duration of the permit. The BLM would continue to manage the grazing allotment and permit. USAF would manage public access in the Gila Bend Addition through the visitor permit system currently administered for the entire BMGR. Dispersed recreation would not be allowed in the Gila Bend Addition. Natural and cultural resources would be managed by USAF as part of the existing INRMP and ICRMP planning processes established for the BMGR. Withdrawal and reservation of the proposed Gila Bend Addition would preclude public appropriations under the general land laws, including the mining laws and the mineral leasing and geothermal leasing laws for the duration of the withdrawal.

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